A History of the Korean Language

Ki-Moon Lee and S. Robert Ramsey
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*A History of the Korean Language* is the first book on the subject ever published in English. It traces the origin, formation, and various historical stages through which the language has passed, from Old Korean through to the present day. Each chapter begins with an account of the historical and cultural background. A comprehensive list of the literature of each period is then provided and the textual record described, along with the script or scripts used to write it. Finally, each stage of the language is analyzed, offering new details supplementing what is known about its phonology, morphology, syntax, and lexicon. The extraordinary alphabetic materials of the fifteenth and sixteenth centuries are given special attention, and are used to shed light on earlier, pre-alphabetic periods.

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Frontispiece: Korea’s seminal alphabetic work, the *Hunmin chǒngǔm* 
“The Correct Sounds for the Instruction of the People” of 1446
A History of the Korean Language

Ki-Moon Lee
S. Robert Ramsey
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Map 1. The Korean peninsula
The story of Korean begins with the invention of the Korean alphabet. Ever since it was introduced in 1446, the Korean alphabet has been the source of precise and detailed information about the phonological and morphological structure of the language. In that year, some three years after an announcement of its creation had been made in the dynastic annals, the reigning monarch, King Sejong, promulgated a handbook introducing the new script and explaining its use, and from that point on Korean has been a language structurally accessible to future generations of linguists. Before the alphabet, there is virtually nothing in the way of quality documentation; with the alphabet, Korean structure is laid out for us to see. (The invention, how it happened, and what we know as a result, will be discussed in detail in Chapter 5.) Thus, lucid and precise written records of the Korean language go back slightly more than five and a half centuries.

That length of time may seem ancient by most standards, but it is not particularly long on the time scale of East Asian history, or even of Korean history. Chinese writing is thought to have begun around the seventeenth century BC; and it was certainly a fully developed writing system by the fourteenth century BC. That means histories were being written and literature composed almost two thousand years before the Korean alphabet was invented. That was of course in China. But on the Korean peninsula as well, local scribes most certainly wrote in Chinese – at least soon after the Han commanderies established a presence there in 108 BC. In other words, Koreans were literate and creating histories and literature about a millennium before the beginning of the alphabetic period.

But what do such early writings tell us about the Korean language? The simple answer is, frustratingly little – at least not in a direct and easily accessible way. People on the Korean peninsula were writing in Chinese, after all. But quite naturally Koreans did attempt to record elements of their native language – first and foremost proper names – and they did so with the only writing system they knew, Chinese characters. There were two ways to use these logographs: either to approximate sounds or to suggest meanings, and Koreans experimented with both methods, often in combinations.
Such writing of native words was apparently practiced in all the peninsular states during the Three Kingdoms period, and evidence of that usage can still sometimes be found in the transcriptions of place names. But it was in Silla (57 BC – 935 AD), the last of the three kingdoms to take up Chinese writing, where we see the most advanced adaptation of Chinese characters to transcribe Korean. There, the poems now known as hyangga, or ‘local songs,’ were written down in a complex interweaving of Chinese graphs, one hinting at meaning, the next one or two at sounds, then perhaps another one or two with by now obscure associations. (The method is described in Chapter 3.) The Silla system might best be compared to the man’yōgana writing of early Japanese verse. But whereas almost 5,000 man’yōgana poems from the eighth century alone are still extant, no more than 25 hyangga from all the centuries in which such verse was being composed in Korea have survived. What is more, Buddhist priests in Japan soon made annotated editions of the man’yōgana poems, with readings transcribed in katakana, and these texts, too, have survived. The differences are stark. People on the Korean peninsula began writing much earlier, and Koreans were almost surely recording words in their own language earlier as well, but far fewer vestiges of those early Korean texts remain. Inscriptional fragments from ancient Korea certainly exist. And, somehow, those fragments must once have been read with the sounds and words of a poem, say. But whatever those sounds may have been, they are not overtly recoverable by the modern reader. The corpus is too small, and the transcription method too opaque for the poems to be read without supplemental knowledge of the language. For this reason, what is known as “Old Korean” is largely a reconstruction.

Structural information from the fifteenth century is used to reconstruct all pre-alphabetic stages of Korean. That dependence is as true for “Early Middle Korean” (Chapter 4) as for “Old Korean” (Chapter 3). In both cases (and for whatever “Proto-Korean” form comparativists would reconstruct as well), the departure point is always the fifteenth-century system. Recovery of the earlier system proceeds by reconciling internal reconstruction with the philological hints found in the textual corpus.

**The origin of Korean**

An enduring problem in Korean historical linguistics is the question of genealogy and origin. Proposed relationships to Altaic and Japanese are the most seriously considered genetic hypotheses; Korean has been compared to Altaic for almost a hundred years, and considerably longer to Japanese. Some of this comparative work has been detailed and professional, even convincing in some cases, and we describe what we believe to be positive results of comparative research in Chapter 1, “Origins.” In doing so, we present two
different approaches comparativists have taken in their efforts to prove a
genetic affinity of Korean with Altaic. The first and more common approach
is through the classic application of the comparative method; the second,
a kind of methodological shortcut to proof that in many ways is more
convincing, is by looking at specific morphological details that Korean and
the Altaic languages have in common, in this case, the inflectional endings of
verbs used to form nominals and modifiers. We also draw attention to what
might well be the most promising avenue of research of all, the comparison of
Korean to Tungusic, a family of languages considered by most comparativists
to be a branch of Altaic. More than half a century ago, one of us (Lee)
published a preliminary study comparing Korean to the best-known Tungusic
language, Manchu. We believe the genetic relationship suggested in that work
deserves renewed consideration.

Nevertheless, the answer to the question of where Korean came from is
still incomplete. In order for a genetic hypothesis to be truly convincing, the
proposed rules of correspondence must lead to additional, often unsuspected
discoveries about the relationship. Concrete facts must emerge about the
history of each language being compared in order to put the hypothesis
beyond challenges to its validity, and that has so far not happened in the case
of Korean. As a result, we cannot yet say with complete certainty what the
origin of Korean was. Chapter 1, “Origins,” is really an essay about prehistory.

The beginnings of Korean history

Chapter 2, “The formation of Korean,” brings the descriptions in this book
into the realm of recorded history. The historical narratives described there,
the earliest about language and ethnicity on the Korean peninsula, were drawn
from Chinese histories and were based, at least in part, upon the first-hand
reports of Han Chinese observers. In annals compiled by the Han, the Wei,
and others, Chinese visitors to the peninsula recorded the names of states, the
earliest being that of the legendary Chosŏn; towns and settlements; and
peoples, such as the Suksin, the Puyŏ, and the Hán. They wrote down the
names of exotic “Eastern Barbarian” groups, including the Puyŏ, Koguryŏ,
Okchŏ, and Ye, and the so-called “Three Hán”: the Mahan, Chinhan, and
Pyŏnhan; they described ethnic characteristics, such things as what the locals
looked like, and what some of their customs were. All of these local words
and names were transcribed in Chinese characters of course, and now, more
than a millennium and a half later, the sounds and meanings that those
characters were intended to represent have long since been lost. The roman-
ized forms given for the names represent the modern Korean pronunciations
of the characters and nothing more. Nevertheless, much has been made of
those early descriptions. Historians and linguistic historians have scrutinized
every word and phrase looking for any hint, any shred of information that could be used to solve the mysteries surrounding early life, language, and culture on the Korean peninsula.

A bit more light emerges with the rise of the first true states. In the third century, Wei ethnographers had found only tribal confederations, but by the fourth century, wars and political alliances had brought about a coalescence of those groups into what were undeniably nation-states. They included, among others, the powerful northern state of Puyŏ and in the south, Kaya, or Mimana, as it is usually called in Japanese annals. But the best-known states to emerge around that time were Koguryŏ, Paekche, and Silla, the “three kingdoms” of what later became known as the Three Kingdoms period. Koguryŏ, Paekche, and Silla were also the first states to arise on the Korean peninsula for which linguistic evidence still exists. Japanese annals contain a few hints as to names and terms used in those kingdoms, but most of the lexical information comes from place names recorded in the Samguk sagi, a Koryŏ-period history from 1145 compiled out of older peninsular histories and records long since lost. How linguistic information is gleaned from that source is described in some detail in Chapter 2.

Out of those lexical fragments we build a case that what was spoken in the three kingdoms were different but closely related languages. To be sure, many controversies remain, both about that issue and about the Samguk sagi place names, particularly those found on Koguryŏ territory. We discuss some of the controversies; we show that Koguryŏ place names in particular have transcriptional characteristics that distinctively mark them as Koguryŏan.

Finally, we describe why it was the Silla language that should properly be referred to as “Old Korean.” It was Silla that effected a linguistic unification of Korea, and its speech, through military conquest and political consolidation, was the language form that eventually became the lingua franca of the entire peninsula. In that way, Sillan gave rise to Middle Korean, and is thus the direct ancestor of the language spoken throughout Korea today.

Each subsequent chapter after Chapter 2 deals with a separate period in the history and development of Korean. And although those chapters, five in all, differ greatly in detail and length, all have the same narrative structure. Each begins with a description of the historical and cultural background. The literature of each period is then listed and described, along with the script(s) used to write it. Finally, the description of each language stage is organized into the details of phonology, morphology, syntax, and lexicon.

The historical periods

The first known stage of Korean, “Old Korean,” is described in Chapter 3. As mentioned earlier, Sillan literati wrote in Classical Chinese, but some apparently made incipient efforts to transcribe native literature as
well. All we know about such literary efforts, however, comes from much later historical records mentioning compilations of hyangga, and, of course, from the twenty-five examples of such verse that are still extant. But poems are not the only sources of linguistic information from the Old Korean period. A much more common traditional method of writing Korean was the scribal technique known as idu, the use of which goes back to the Three Kingdoms period. While mostly used for annotating Chinese texts, and providing little in the way of phonological information, idu does contain some useable information about early Korean. Both transcription systems, idu as well as the “hyangch’al” method of writing hyangga, are explained in some detail in Chapter 3. Besides idu and hyangch’al, there are also phonogramic transcriptions of Korean names; Chinese transcriptions of Korean words, loanwords into Japanese; and, finally, the information that can be surmised from the traditional Sino-Korean readings of Chinese characters, which were imported into Korea during the Three Kingdoms period.

None of these Old Korean sources is sufficient to establish its phonological system in any detail, however. The best they can be used for is to determine a few general characteristics of the system. In a word, Old Korean is reconstructed by using such philological information as reference points and triangulating from Middle Korean.

For Old Korean grammar, idu and hyangch’al provide information about the use and morphology of some particles and verb endings. There are hints about first- and second-person pronouns.

Two important lexical facts emerge from Old Korean attestations. The first observation to be made is that most of the Silla words found in extant sources correspond to reflexes in the vocabulary of Middle Korean. These correspondences are significant, because they help confirm the identification of Sillan as Old Korean. The second fact to be learned is how the growing influence of Chinese civilization affected the Korean lexicon. For the most part, Sinitic importations into Silla usage were not loanwords per se, but rather vocabulary derived from the codified readings of rime tables and dictionaries. These readings were passed down without significant additional input from China to become the traditional “Eastern Sounds” used in Middle Korean texts. As a result, the Silla readings of Chinese characters were the sources of Sino-Korean readings used today.

The term “Middle Korean” (MK) usually refers to the language of the alphabetic documents of the fifteenth and sixteenth centuries, and that is how we use it as well when the reference is clear. However, the usage can also be misleading. The language itself did not abruptly change when the alphabet was invented; instead, the linguistic period that Middle Korean represents appears to have actually begun around 500 years earlier, in the tenth century,
when the capital was moved from the southeast to the middle of the peninsula. For this reason, we call the earlier centuries of the Koryŏ period “Early Middle Korean”; and, when clarity demands it, we call the language of the fifteenth and sixteenth centuries “Late Middle Korean” (LMK).

The Early Middle Korean period (Chapter 4) began when the Koryŏ established a new government and moved the geographic base for the language away from the old Silla capital. From the fragmentary evidence available to us, it appears that Koguryŏ substrata still existed in local speech at that time, but such traces gradually faded over the centuries as the Sillan-based language continued to exert its influence.

In this pre-alphabetic period, attestations of the language are hard to come by and difficult to interpret, just as they are for Old Korean. There are two important sources of phonological information about Early Middle Korean, however. The first is a vocabulary list compiled by a Chinese visitor to the Koryŏ capital in the early twelfth century, the Jilin leishi, or, as it is known in Korea, the Kyerim yusa. The Korean words on that list are transcribed impressionistically with Chinese characters used as phonograms, and their interpretation poses many challenges to historical reconstruction. Still, combined with internal reconstruction from the fifteenth-century system, the Jilin leishi evidence is a valuable phonological resource. The second Koryŏ-period resource is the thirteenth-century medical treatise, Hyangyak kugūppang. Unlike the Jilin leishi, that medical compilation is a native work that contains the local names for plants and other products used in herbal cures. Though these Korean words are only occasionally written phonetically using phonograms, the transcriptions reflect an older Korean convention and are systematic enough to approach a kind of rudimentary syllabary. Philologists speculate that if the corpus were larger, the Hyangyak kugūppang might reveal a fuller picture of Early Middle Korean phonological structure.

Another resource that must be mentioned is that of loanwords. Through Yuan-dynasty China, Koreans borrowed a number of terms from Mongolian, and these words provide information about the sounds of Korean at the time.

There is also one more important resource for Early Middle Korean: interlinear annotations of Chinese texts. In the Koryŏ period, there were two different ways of elucidating texts, both of which were unobtrusive almost to the point of being invisible. The first used simplified Chinese characters known as kugyŏl that were written by hand between the lines of Chinese; these markings were discovered in the 1990s. (Kugyŏl use and structure are illustrated in Chapter 4, with comparisons to hyangch’al and Japanese katakana.) The second marking method did not involve writing at all; it consisted of making tiny dots and angled lines with a stylus. Known as kakp’il, these marks are truly bordering on invisible; they were discovered only in 2000 with the help of a strong angled light – and, of course, sharp
eyes. Both kugyŏl and kakp’il are generating considerable excitement among philologists and linguists for the information they potentially reveal about the use of particles and other grammatical markers. The final story of this linguistic resource has still to be written.

Since Early Middle Korean is less distant in time from the fifteenth century, more of its phonological system is evident from internal reconstruction than that of Old Korean is. Combined with philological clues, the method reveals something of how clusters and aspirates seen in the fifteenth century had developed through vowel syncope. There was also, we believe, a “Korean Vowel Shift” that took place between the thirteenth and fifteenth centuries; the principal evidence for the timing of the shift comes from Mongolian loanwords.

The lexical sources for Early Middle Korean show evidence of native vocabulary since lost, some of which was evidently displaced by Sinitic vocabulary. Loanwords from Mongolian and Jurchen, which were surely borrowed during the Early Middle Korean period, lingered into the alphabetic period.

As we have said, Late Middle Korean (Chapter 5) was the language’s most important historical period. Its texts are consistent and phonologically precise, the textual corpus rich and voluminous. Its transcriptions record segmentals and suprasegmentals; the symbols incorporate articulatory features; spellings are standardized. For both phonological and morphological information, this textual record is unsurpassed anywhere in the premodern world. Syntax and stylistics, however, are not of the same quality. Since most writings were pedagogical interpretations of Chinese texts, they were often stylized and stilted. Philologists believe the syntax of these texts did not always represent natural, idiomatic Korean.

We try to present a reasonably exhaustive list of the many texts of the period, first by century, then by the reign period and year, describing their features, what copies are extant and where they are located. Since the nature of the writing system critically affects analyses, considerable space is devoted to describing the alphabet, Hangul, its orthographic conventions, the philological issues around its early history, and the transcription of Sino-Korean.

Linguistic structure is treated in far more detail in Chapter 5 than in any other part of the book. We pay particular attention to phonology and morphology. Over the past century and more, the phonological system of Middle Korean has been the focus of intensive research; and the findings of that research are presented in Chapter 5 together with new interpretations. We bring in comparative information from modern dialect reflexes. Morphology, too, is described in detail. In treating syntax, we have focused on ways in which fifteenth-century structure differed from that of today’s language.

Early Modern Korean (Chapter 6) formed a transition between Middle Korean and Contemporary Korean. That stage is reflected in texts written between the beginning of the seventeenth century and the end of the nineteenth.
Unlike the literature of the Middle Korean period (or, of course, that of the twentieth century), writings of the Early Modern period were relatively unconstrained by convention and spelling practices. The Imjin Wars at the end of the sixteenth century, followed by disease and famine, had disrupted the social order underlying writing conventions, and ongoing changes that had long been masked by standard writing practices suddenly appeared. The textual record was different from Middle Korean in other ways as well. In addition to official government publications both new and reissued, the Early Modern corpus included such genres of literature as new types of sijo poetry, literary diaries, and, most important and popular of all, vernacular novels.

During this unstandardized period, variant spellings and transcriptional mistakes were extremely common, and it is mainly from this kind of evidence that linguistic changes have been documented. Among the most salient phonological changes the language underwent were the spread of reinforcement and aspiration, palatalization (and spirantization), the loss of the vowel /o/, monophthongization, and the erosion of vowel harmony. In its grammar, the language showed a tendency toward structural simplification in both verbal and nominal morphology. A more natural syntax and style can be seen in the Early Modern period. In the lexicon, native vocabulary continued to be lost and replaced by Sinitic words and expressions, as well as by Western words making their way into Korea through China.

“Contemporary Korean” (Chapter 7) is a description of how Korean emerged from its traditional forms to become the modern world language spoken and written in South Korea today. It begins with the script reforms of the late nineteenth century during the “enlightenment period” and the establishment of orthographic standards in 1933. These early script reforms revealed changes in the language that had long since taken place. But shifts have also taken place since the nineteenth century. The most noticeable of these more recent changes have been in the lexicon, of course; after all, Korea has become integrated into virtually every aspect of modern world culture, from economics and politics to technology to pop media, and new words are very much at the heart of these changes, as they are of what is so enthusiastically called “globalization.” But phonology and morphology have also not remained static. In this last chapter we try to document the most salient of those changes, both those that the script reforms revealed, and those that resulted later from powerful social and economic forces.

**Background to the present work**

In writing this volume, we have tried to summarize what is known to date about the history of Korean. It is based upon an earlier work, *Kugŏ-sa kaesŏl*
Background to the present work

(‘An Introduction to the History of Korean’), originally written by one of us (Lee) and published in its first edition in 1961. That book was subsequently reissued in a completely revised edition in 1972, later reworked and enlarged numerous times, and today it is widely used as a textbook in language and literature departments in many Korean universities. In 1975 the book was translated into Japanese by Fujimoto Yukio, and in 1977 into German by Bruno Lewin. The present work is different in both presentation and structure from those translations, however. *Kugŏ-sa kaesŏl* was written for students studying the history of their native language, and a translation involving Korea’s textual philology unavoidably confronts problems of cultural transferability difficult to surmount. As a result, we set out from the beginning to produce a different kind of work, one aimed at making the history of Korean more straightforward for, and at least a little more accessible to, an English-language readership. That goal turned out not to be a simple undertaking. One of us (Ramsey) spent a number of years working on the manuscript, consulting all the while with the other (Lee). In the end, significant changes have been made in both content and expression. Some conclusions about earlier Korean have been revised as well.

We have added considerably more detail about the phonology and morphology of Late Middle Korean, as well as inferences to be made from internal reconstruction within those systems. Although the amount of print space in Lee’s original book devoted to that stage of the language was nearly as great as that used for all the other stages of the language combined, still more attention was called for, we thought, especially in addressing a Western readership unfamiliar with the alphabetic documents of the fifteenth and sixteenth centuries and their unparalleled linguistic significance.

A minor difficulty with periodization was deciding what to call the two stages of the language that followed Middle Korean. In most English-language publications, “Modern Korean” refers only to what was spoken between the seventeenth and nineteenth centuries, while what’s spoken today is “Contemporary Korean.” We find that convention confusing. It’s difficult to get used to talking about a “modern language” when it hasn’t been spoken in over a hundred years. For this reason, we decided to call that earlier stage “Early Modern Korean” instead.

The philology presented choices. In *Kugŏ-sa kaesŏl* a separate chapter was devoted to a summary of the various kinds of writing systems that have historically been used in Korea. In this work, however, each type of writing is described separately, together with the stage of the language when it was employed. For example, descriptions of how Chinese characters were used to transcribe Korean can be found in the chapter on Old Korean; the structure of the early alphabet appears in the chapter on Late Middle Korean; etc.
Romanization

No one system of romanization fits every purpose. To write Korean names and general terms appearing in the body of the text, we have chosen the McCune-Reischauer Romanization. That system ignores the internal structure and history of the Korean form in favor of approximating how the word sounds to English speakers, but it is also usually judged by Westerners to be esthetically pleasing, with a scholarly appearance on the page. The South Korean Ministry of Education has campaigned vigorously to win acceptance for the new revised system that it introduced in 2000, but that system ignores history and structure just as much, and as yet McCune–Reischauer remains the academic standard in the Western world. On the other hand, we have retained some non-standard spellings familiar to Western readers. Most prominently, the name of the Korean alphabet is transcribed throughout as “Hangul” (we thought McCune–Reischauer’s “Han’gül” too freighted down with diacritics, and the Ministry of Education’s revised spelling “Hangeul” intuitively odd and misleading for speakers of English). Personal names are spelled according to individual preferences when known.

For transcribing Korean linguistic forms we use the romanization found in Samuel E. Martin’s *Reference Grammar of Korean* (RGK, 1992). That system is an adaptation of Yale Romanization that Martin created to account for the extra letters and distinctions found in Middle Korean. It is the most systematic and thoughtfully constructed transcription of earlier Korean that we have found; it is also commonly used now in professional writing about the history of Korean. Nevertheless, the system has a few troublesome features. One is the graphic complexity required to reflect all the Middle Korean symbols, including those used for suprasegmentals. Another is that the sounds represented by the letters are not always intuitively obvious. There are also a few minor philological problems. One such confusing detail, for example, is how the Middle Korean letter ○ is transcribed. That particular letter is not reflected at all in Martin’s transcriptions in case it represented the “zero initial,” and this choice seems unassailable. However, in words where philologists have shown the letter to stand for a weakened, syllable-initial consonant, it is transcribed with a capital G, a choice that is also usually appropriate, because the consonant that lenited was most often a velar. But in some cases the weakened consonant was a labial, and in those cases the G can be misleading. Nevertheless, these are minor quibbles. Any romanized transcription of Middle Korean encounters difficulties.

We depart from Martin’s romanization practice in three principal ways. First, and most importantly, we believe that the original Korean, including Chinese characters, must always be included for each historical citation, and
that is what we have done, showing the original alongside the romanization. We also show the textual source of the citation in parentheses, along with the date of the text. Second, to reduce the complexity of the transcriptions, we have omitted tone marks, except in cases where information from those tones is required for the analysis. Third, we use the same modified Yale system for both Middle Korean and Contemporary Korean. Thus, for example, Martin romanizes the particle 도 ‘also, even’ as italicized two when it occurs in a Middle Korean text, but as bolded to when it occurs in Contemporary Korean. We write both as two.

Two approaches have been adopted for the transcription of Sino-Korean:

(1) The readings of Chinese characters found in the earliest alphabetic texts are prescriptive ones codified in the 1447 dictionary Tongguk chŏngun. We follow Martin’s practice (1992, p. 4) of transcribing such readings in italic capitals; thus, the title of the dictionary in question, 東國正韻, is written TWONG-KWUYK CYENG-NGWUN. In these early alphabetic texts the Chinese character is usually followed by the prescriptive reading; in cases where that reading is omitted, however, we have (again, following Martin) enclosed the romanized transcription in brackets.

(2) Beginning in the 1480s, prescriptive readings gave way to actual Korean pronunciations, called “Eastern Sounds” 東音. The earliest text where this change in notation occurred is assumed to be the 1481 Korean exegesis of the Tang poet Dù Fǔ’s poems, Tusi ḏŏnhae. Again, as is done with Tongguk chŏngun prescriptive readings, these Eastern Sound readings (compiled in Nam 1995) are transcribed in modified Yale written in italic capitals. Thus, the title of the Du Fu exegesis 杜詩諺解 is transcribed [TWU-SI EN-HOY].

The thorniest romanization problem of all has been the transcription of Korean words represented with Chinese characters. In fact, if the text characters were used to approximate meanings, little at all could be reasonably done without additional information, and such words have unavoidably been left unrepresented in romanized form. If, on the other hand, the characters were used as phonograms, our romanization choice depended upon whether the transcription was made by Koreans or by Chinese.

(1) Phonograms written by Koreans, regardless of time period, are treated as “Eastern Sounds” and romanized in modified Yale, as above.

(2) Phonograms written by Han Chinese are assumed to represent reconstructed Chinese sound values, and are therefore romanized, in italic capitals, according to Pulleyblank (1991).

Chinese names and general terms are romanized in Pinyin; Japanese terms are romanized in Hepburn.
Grammatical terms

We use the grammatical terminology found in Martin’s *Reference Grammar of Korean*. That choice was a natural one: *RGK* is now the most widely used Western-language reference for Korean grammatical terms, and the most comprehensive compilation of such terminology in English. As explained on p. 3 of that work, much of the terminology found there stems from several decades of structuralist practice in codifying the grammatical categories of Korean. And although Martin made a variety of additions and small changes, *RGK* reflects for the most part what has through long practice become standard.

From time to time we have made exceptions. One example is the term “converb,” which is discussed and footnoted in Chapter 1, “Origins.” That exception was made because the term has often been used in the literature about Altaic, where it is said to be one of the defining structural features of the language family. But we do not otherwise use the term in describing the structure of Korean.
Where does the Korean language come from? This origin question is of ultimate interest to linguists, but it has also captured the imagination of the Korean lay public, who have tended to conflate the question with broader ones about their own ethnic origin. Linguistic nomenclature has added to the confusion. When specialists speak to the public about “family trees” and “related languages,” the non-specialist naturally thinks that the Korean language has relatives and a biological family like those people do. And when a people as homogeneous as Koreans are told that their language belongs to a family that includes Mongolian and Manchu, they envision their ancestors arriving in the cul-de-sac of the Korean peninsula as horse-riding warriors. It becomes a personal kind of romance.

In this way, linguistic theories presented in a simplistic way tend to overshadow complex ethnographic and archeological issues. But the linguistic question is no less complex, all the more so because, unlike archeological evidence, linguistic evidence cannot be dug from the ground. Artifacts have been extracted from the Korean earth that speak to the structure of earlier societies and cultures, but there is nothing of comparable age to be found in records of the language. To explore the history of the language at that time depth, far beyond what has been actually written down, linguists can only rely upon the comparison of Korean with other languages and hope to find one that has sprung from the same “original” source. For if such a “related” language can be found, then the question of origin will at last have a satisfactory answer.

There are two problems comparativists immediately face. The first is that there is no a priori guarantee such a language exists. There is always the possibility that Korean is an “isolated” language like Basque, or perhaps Ainu. Moreover, if Korean does in fact have “living relatives,” the relationships are at the very least distant ones far removed from historical times. Otherwise, the connections and relationships with those languages would already have long since been established. The second problem is the difficult and highly technical nature of the methodology necessary to establish a genetic relationship. Resemblances between the languages, even striking ones, are not
enough. As is well known among comparativists (but often not to their broader reading public), the resemblances must occur in interlocking and systematic sets that banish all possibility of accident or borrowing. Vigorous comparative research on Korean has been ongoing for a very long time. Efforts to link the language with Altaic have been under way since the early twentieth century; with Japanese even longer, starting with Aston in 1879. Rules of correspondence have been proposed in various formulations. Yet, none has resulted in the critical mass necessary to convince skeptics. For if such a critical mass had been reached, it would have precipitated a chain reaction of discoveries, perhaps previously unsuspected, about the relationship and the prehistoric structures of the languages being compared. That is in fact what most famously happened with Indo-European, time and time again, from William Jones’s original formulation to Grimm’s Law, Verner’s Law, Grassman’s Law, the Laryngeal Theory and beyond. But other language families have also been established this way as well, from Semitic to Austronesian. It can rightly be argued that nothing like that is possible in the case of Korean. This is because any genetic relationship Korean may have is necessarily too remote in time for the methodology to produce such a robust set of correspondences. Perhaps so. But comparativists have no choice but to work toward that goal. And above all, researchers must always remember that any evidence bearing on the proof of a genetic relationship must be completely linguistic in nature. Even were, say, historical records of ethnic migrations to be discovered, or even if archeological digs uncovered evidence of connections between earlier cultures, neither would constitute a contribution to the linguistic evidence. Such factors can sometimes indicate the directions in which linguistic research should go, but they can never serve as substitutes for that research. The methodology is strict in this requirement.

There is also another matter that is often lost sight of. Most specialists, and certainly the lay public, consider the discovery of a genetic relationship to be the holy grail of historical linguistics. But in fact a discovery of that kind should not be thought of as the end of the search. Rather, it is really the beginning. For when comparative research produces a critical mass of correspondences, the hard work of establishing the correspondences sets off a chain reaction of other discoveries, as suggested above. In this way, the history of each language quickly expands quantitatively and qualitatively far beyond what is known from written records. It is this expansion of knowledge that should be the goal of the comparative linguist, not the discovery of a genetic relationship per se.

1.1 Genetic hypotheses

Experts now take seriously two genetic hypotheses about Korean: (1) the Altaic hypothesis and (2) the hypothesis that Korean and Japanese are related.
In addition, what is often called “Macro-Altaic” combines both hypotheses by including Korean and Japanese within a greater Altaic family. Over the years Korean has been compared to a variety of other languages and language families as well, including even Indo-European. Most of those attempts have been amateurish and based upon superficial similarities, however.1

1.2 Altaic

The Altaic family includes languages spoken across northern Asia, from Anatolia and the Volga basin to the northern coast of northeastern Siberia. It is made up of three branches: Turkic, Mongolic, and Tungusic.

Each of these three branches is a well-established family in its own right. The internal rules of correspondence within each are both productive and predictive. However, the overarching, Altaic hypothesis linking the three branches together as a larger family remains relatively controversial. Scholars who question its validity believe that the Altaic languages did not all spring from a common source, but rather resemble each other closely because of extensive borrowing through prolonged cultural contact. The meaning of “Altaic” is an ongoing subject of debate among specialists.

The Altaic languages share certain salient characteristics of phonology, morphology, and syntax. Vowel harmony, a verb-final word order, and agglutination are the best known of those characteristics; they were noticed very early on by comparativists. But over the years researchers have adduced a number of other structural features that also distinguish Altaic languages from neighboring languages and language families. These features are not found, say, in Indo-European or Chinese. Moreover, one of those core distinguishing features, the existence of what is called a “converb,” a term coined to describe

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1 On the other hand, Morgan Clippinger, an independent scholar who has written on a variety of Korean subjects, presented an argument in 1984 for a genetic connection between Korean and Dravidian, a family of languages found today in southern India. The article caused experts to give the idea a second look. In spite of what many thought at the time to be a far-fetched comparison, Clippinger’s application of the methodology was informed and his knowledge of the data professional. Using Middle Korean forms and selected words from Dravidian (including reconstructions), Clippinger presented 408 pairs of lexical items he believed were cognate, and from them postulated 60 phonological correspondences. The resemblances were striking. In fact, the similarities were so striking that, as early as 1905, Homer B. Hulbert had put forward much the same idea, though in less detail and with less professional argument. Then, only a couple of years before Clippinger’s study, in 1980, Ōno Susumu had caused something of a sensation in Japan by suggesting that one of the modern Dravidian languages, Tamil, constituted the source of a lexical strata in both Japanese and Korean. Following that surge of interest in the 1980s, however, the idea seems to have been abandoned. Nevertheless, it is difficult to escape the conclusion that Clippinger’s study deserves to be reexamined, at the very least as an exercise in the use of the comparative method and what meanings can be drawn from it.
a structural element commonly found in Altaic languages, is not found in Uralic, a language family once believed to be part of a greater Ural-Altaic family.2

However, not only are all these characterizing structural features found in Altaic languages, most are also found in Korean and Japanese as well. Of course, exhibiting common linguistic features does not in any way constitute proof of genetic affinity, but they are suggestive. Related languages are expected to be structurally similar, and such resemblances unquestionably play a role in the formulation of genetic hypotheses.

### 1.2.1 Comparison of Korean and Altaic

There are two ways in which comparativists have tried to demonstrate that Korean sprang from the same source as Altaic. The principal and by far the more common way has been to use the core concept of the comparative method; that is, linguists have attempted to establish regular sound correspondences between words and morphemes found in Korean with matching ones found in the Altaic languages. Efforts in this first case have unquestionably produced plausible comparisons; the correspondences appear likely. However, the proposed lexical matches have not yet been numerous or systematic enough to convince all skeptics. That is to say, the proposed sound correspondences have not yet led to an ever-growing series of discoveries that would place the comparisons beyond all possibility of chance or borrowing through cultural contact.

The second way comparativists have tried to prove Korean is related to Altaic is by using a supplementary method, one that might be thought of as a shortcut. This quick alternative, first proposed in the early twentieth century by the French structuralist Antoine Meillet, involves using what Meillet called a *fait particulier* ‘singular fact’ to prove the existence of a genetic relationship. Instead of assembling a list of sound correspondences, it was possible to establish the relationship, Meillet said, by simply adducing specific morphological elements that the languages have in common. For example, the correspondence of the suppletive English triad *good, better, best* to the equally irregular *gut, besser, best-* in German is thought to be so detailed and unlikely to be borrowed as to demonstrate immediately that English and German are related languages. This method does not obviate the eventual need to establish sound correspondences. But it does set a baseline of genetic affinity from which to begin. It is this second kind of comparison of Korean with Altaic that is most persuasive.

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2 “Converb” refers to a verbal suffix that functions the way a relative pronoun or conjunction does in a European language.
But first, let us look at how the traditional comparative method has been turned to the problem. As far as Korean is concerned, the most important early comparativist was the Finnish scholar G. J. Ramstedt, who, in 1928, presented a plausible argument that Korean was a member of the Altaic family. Then, following the appearance of his monograph *Studies in Korean Etymology* in 1949, and subsequently, in the 1950s, three more monographs on the subject, the idea won general acceptance among Altaicists. But it was in Korea that the hypothesis found particularly broad support. In the years since Ramstedt’s works first appeared, Korean scholars and non-specialists alike have pursued it energetically and with enthusiasm, so that today, in reference works and school textbooks, descriptions of Korean usually begin with the Altaic hypothesis. Korean’s membership in the family is treated as an established fact, and only rarely are the controversies surrounding the Altaic hypothesis itself mentioned in this literature. Nor do most scholarly treatises present the hypothesis with the kind of caution called for by the state of the art.

The comparative method has not yet shown to everyone’s satisfaction that Korean is related to Altaic. Still, most experts believe it is there, in that widely dispersed family, that the origin of Korean is to be found. What follows is a brief outline of a version of the hypothesis that we find compelling.

### 1.2.1.1 Vowel correspondences

Altaicists generally reconstruct Proto-Altaic with a vowel harmony system consisting of front vowels paired against back vowels.\(^3\) On the basis of evidence from Early Middle Korean, we believe that earlier Korean had a similar system of vowel harmony. In the display below we present those Early Middle Korean values along with the attested Late Middle Korean values. The Proto-Altaic system is that of Poppe (1960).

<table>
<thead>
<tr>
<th>Back vowels</th>
<th>Front vowels</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Proto-Altaic</td>
<td>*a</td>
</tr>
<tr>
<td>Early MK</td>
<td>*a</td>
</tr>
<tr>
<td>Late MK</td>
<td>[a]</td>
</tr>
<tr>
<td></td>
<td>/a/</td>
</tr>
</tbody>
</table>

\(^3\) Quite recently Starostin *et al.* (2003) have argued instead that the original Altaic language lacked vowel harmony of any kind, and that the various branches of the family developed vowel harmony systems independently through complex, assimilative processes. That scenario seems to us implausible. Besides vowel harmony, many Altaicists, perhaps most, believe that Proto-Altaic also had distinctive vowel length; some argue that it had distinctive pitch as well. We take no position on these latter issues since we have seen nothing in Korean that would be determinative.
Examples:

**Altai forms** | **Middle Korean**
---|---
(1) Evenki * alas ‘leg, base’; Mongolian * ala ‘thigh’; Old Turkic * al ‘lower side’; Middle Turkic * altın ‘lower part’ | alay 아래 ‘lower part’ < *al
(2) Manchu morin ‘horse’; Mongolian morin ‘id.’ | mol 몰 ‘horse’
(3) Evenki * uri-pta ‘be earlier’; Mongolian urida ‘before, formerly’ | wola- 오라- ‘be a long time’ < *ula-
(5) Mongolian * keseg ‘piece’; Turkish kes- ‘break off’ | kes- < *ul-
(7) Manchu * make ‘water’; Evenki * mū ‘id.’; Mongolian mören ‘river’ | mul 몰 ‘water’
(8) Manchu * fulgiye- ‘blow’; Mongolian * ılıye- ‘id.’; Middle Mongolian hülî’e- < *pülîgē- ‘id.’ | pwul- 불- ‘blow’ < *pülî-

Notice that for correspondences (4), (6), and (9), the Middle Korean reflexes are uniformly /i/. What this situation means, if the comparisons are valid, is that the Korean high front vowel /i/ represents the merger of earlier vowel distinctions. Korean would not be unique in undergoing this kind of merger, however, as can be seen in the reflexes of other languages given in the examples below.

(4) Mongolian irayya ‘ridge between fields’; Manchu irun ‘id.’; Chuvash yșran ‘id.’ | ilang 이랑 ‘ridge between fields’ < *ıran; Tatar izan ‘id.’
(6) Manchu erde ‘early’; Mongolian erte ‘id.’; Chuvash ir ‘id.’; Turkmenian ḗr ‘id.’; Azerbaijan Turkic erto ‘id.’ | il 일 ‘early’; ilu- 이르- ‘be early’
(9) Manchu * firu- ‘curse, pray’; Evenki hiruge ‘pray’; Mongolian * irüge- ‘bless’ | pil- 빔- ‘pray, beg’

There are, of course, many problems with the correspondences suggested in the above vowel chart. Of these, one of the most conspicuous is the suspiciously small number of Korean words exemplifying correspondences (2) and (7). Correspondence (7) illustrated by Korean * mul ‘water’ looks reasonable. But then so do the following correspondences:

**Altai forms** | **Middle Korean**
---|---
*ü: Manchu * fusu- ‘sprinkle (water)’; Mongolian * üstür- ‘sprinkle, splash’; Monguor * fuzuru- ‘pour’; Turkish * üskür- ‘spit out’ | puz- 불- ‘pour’
*u: Manchu fulgiyan ‘red’; Mongolian ulayn pulk- ‘red’
‘id.’ < *pulagän

In other words, the Korean vowel /u/ appears to correspond to *ü, *u, as well as to *ö in Altaic. Which, if any, of these proposed correspondences is correct? In this connection, however, note that almost no Korean words begin with the vowel /o/ or /u/ anyway (the only one in Middle Korean was ustum ‘the head, basis’). That is already a curious distributional fact about the vowels that deserves to be researched.

As we have already said, the criterion for judging the validity of any genetic hypothesis is that it must be productive – predictive. That is to say, the proposed correspondences must lead to other, additional discoveries about the languages being compared. One observation suggested by Altaic vowel correspondences is that word-final vowels in Korean seem to have been lost. Thus, through vowel syncope or apocope, two-syllable words are reduced to one syllable; three-syllable words to two syllables. Consider these examples:

<table>
<thead>
<tr>
<th>Altaic forms</th>
<th>Middle Korean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manchu hülän ‘chimney’; Ulch kula ‘id.’</td>
<td>kwul 굴 ‘chimney’</td>
</tr>
<tr>
<td>Mongolian kulan̂g ‘id.’</td>
<td></td>
</tr>
<tr>
<td>Manchu jafa- ‘grasp’</td>
<td>cap- 잡- ‘grasp’</td>
</tr>
</tbody>
</table>

Other Altaic comparisons also point toward syncope in the historical development of Korean. For example, /l/-clusters apparently developed when a vowel separating /l/ from another consonant was lost:

<table>
<thead>
<tr>
<th>Altaic forms</th>
<th>Middle Korean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manchu solohi ‘weasel’; Evenki soligā ‘id.’</td>
<td>solk ᄆ ‘wildcat’</td>
</tr>
<tr>
<td>Mongolian solon̂yo ‘id.’</td>
<td></td>
</tr>
</tbody>
</table>

Syncope as an historical process in the earlier history of Korean is supported by evidence from other sources. Internal reconstruction, along with some documentary evidence, indicates that Middle Korean consonant clusters and aspirates resulted from the loss of medial vowels. (See Chapter 4.)

1.2.1.2 Consonant correspondences
The following display shows correspondences for consonants. The evidence for correspondences (1) through (11), both in Korean and in Altaic, is taken mostly from consonants in word-initial position. The reflexes of the velar nasal in correspondence (12), on the other hand, are found only in non-initial position (either medial or final), and the same is true for the four reconstructed liquids in correspondences (13) through (16). Again, the Altaic reconstructions are from Poppe (1960); the Korean values are those of Late Middle Korean.
As correspondences (1) through (8) show, Korean obstruents do not reflect the voicing distinctions believed to have existed in Proto-Altaic. Nor are the Korean aspirates /ph, th, kh, ch/ (ᄑ ᄌ ᄎ ᄐ) relevant here. Although a few initial aspirates are believed to have existed in Old Korean, they were rare, and the series as a whole is believed to be a secondary, historical development in the phonological system. If, as is suspected, Korean did once have a voiced–voiceless distinction, the conditioning factors for the loss have not yet been found. Were they to be discovered, and were they to jibe with Altaic comparisons, that coincidence would constitute strong confirmation of a genetic relationship.

Comparativists long ago reconstructed a *p as the ancestral form for a wide variety of reflexes. In the Tungusic branch of Altaic, Manchu cognates begin with an f; in Evenki, with an h; in Solon the initial consonant was lost. Only Nanai4 among the Tungusic languages is known to have preserved an initial p. Mongolic languages show a similar variation, except that none has preserved an initial p. The reflex of the consonant was h in Middle Mongolian; Monguor now has an f; Dagur an x; and in most of the rest of the Mongolic languages, the consonant has been lost entirely. Traces of *p in the Turkic languages are even harder to find. Only Khalaj has an h in its place; in the rest of this large family the consonant has disappeared altogether.

Thus, most Altaicists agree that besides Nanai, only Korean has preserved the original bilabial consonant. In Ramstedt’s early formulation, he compared, for example, Korean pal ‘foot’ to Nanai palgan ‘id.’ But Altaicists today recognize a number of other Korean etymologies that show this correspondence. See, for example, the comparisons given above: pwul- 불- ‘blow’ in vowel correspondence (8); pil- 빌- ‘ask, pray’ in (9); and puz- 湯- ‘pour’ compared, e.g., to Manchu fusu- ‘sprinkle (water),’ etc.

Conspicuously missing in the above list of correspondences is the Korean consonant h. This lacuna is particularly significant for reconstruction purposes because the consonant is the morphophonemic and historical source of most occurrences of aspiration in Korean. But no such glottal fricative

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⁴ Formerly called Goldi by the Russians; Hezhen by the Chinese.
has been reconstructed for Altaic. And so, to explain the absence, Ramstedt has speculated that Korean *h* was not original, but was rather derived from an *s* occurring before a high front vowel *i*. In support of that hypothesis, Korean *hoy* ‘sun’ has been compared to Manchu *sun*, Nanai *siu*, and Solon *sigun*, all of which also mean ‘sun.’ Similarly, Korean *hok* ‘earth’ has been compared to Nanai *siru* ‘sand,’ Solon *širukta* ‘sand,’ and Mongolian *širuyai* ‘earth, dust.’ However, complicating the hypothesis somewhat is the fact that some non-initial occurrences of aspiration in Contemporary Korean were apparently derived from velar stops. For example, the reflex of Middle Korean *swusk* ‘charcoal’ is *swuch*; that of *twosk* ‘sail’ is *twoch*; *phosk* ‘redbean’ is *phath*. Some northeastern dialects preserve a /k/ reflex here: *phaykki* ‘redbean’; *swukk* ‘charcoal.’ The development of Korean *h* was surely an unusually complex one.

Proto-Altaic has been reconstructed with four liquids (*r₁*, *r₂*, *l₁*, *l₂*), as shown above. Today, the Altaic languages only have a two-way contrast between an *r* and an *l*; but the reconstruction of two more, *r₂* and *l₂*, was thought necessary in order to accommodate Turkic, which has a reflex *z* corresponding to *r₁*, and an *s* corresponding to *l₁*.

Needless to say, Korean now has only one liquid phoneme, /l/, and the same was true of Middle Korean. But Old Korean transcriptions seem to indicate that at that stage of the language there were two. For the sake of the genetic hypothesis, researchers need to find internal evidence of two such Korean liquids confirming, say, the distinctions in the following comparisons:

<table>
<thead>
<tr>
<th>Altaic forms</th>
<th>Middle Korean</th>
</tr>
</thead>
<tbody>
<tr>
<td>(13) Mongolian <em>boroɣan</em> ‘rain’; Middle Mongolian <em>boró’an</em> ‘snowstorm’; Yakut <em>burxan</em> ‘snowstorm’</td>
<td>(nwun)pwola 눈보라 ‘snowstorm’</td>
</tr>
<tr>
<td>(14) Mongolian <em>iraya</em> ‘ridge between fields’; Manchu <em>irun</em> ‘id.’; Chuvash <em>yəran</em> ‘id.’</td>
<td>* burgl ilang 이랑 ‘ridge between fields’</td>
</tr>
<tr>
<td>&lt; <em>iран; Tatar ižan</em> ‘id.’</td>
<td></td>
</tr>
<tr>
<td>(15) Evenki <em>alas</em> ‘leg, base’; Mongolian <em>ala</em> ‘thigh’; Old Turkic <em>al</em> ‘lower side’; Middle Turkic <em>altı̄n</em> ‘lower part’</td>
<td>alay 아래 ‘lower part’</td>
</tr>
<tr>
<td>(16) Mongolian <em>čilayun</em> ‘stone’ &lt; <em>tǐl-a-gun</em>; Chuvash <em>culo</em> ‘id.’; Old Turkic <em>taš</em> ‘id.’ &lt; <em>ți²a</em></td>
<td>twolh 틈 ‘stone’ &lt; *tuluh &lt; *tiligü</td>
</tr>
</tbody>
</table>

### 1.2.2 A methodological shortcut

As mentioned above, many linguists believe it is also possible to demonstrate genetic affinity by adducing a small number of common elements found within the structures of the languages being compared. Inflectional morphemes
represent particularly fertile ground for the application of this historical method, since such elements are by their nature relatively impervious to borrowing.

1.2.2.1 Particles
Korean has a number of inflectional morphemes that it seems to share with Altaic. Some of these are found in the particle systems. Here are three suggested matches:

<table>
<thead>
<tr>
<th>Altaic forms</th>
<th>Middle Korean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dative *-a/e: Old Turkic at-im-a ‘to my horse’; Mongolian yaʃar-a ‘in the land’</td>
<td></td>
</tr>
<tr>
<td>Directional *-ru/rü: Old Turkic ḁb-im-rü ‘to my house’; Mongolian inaru ‘this way,’ činaru ‘that way’</td>
<td></td>
</tr>
<tr>
<td>Prolative *-li: Evenki hok-to-li ‘along this road’</td>
<td></td>
</tr>
<tr>
<td>Locative -ay/ey -애/에</td>
<td></td>
</tr>
<tr>
<td>Directional -hwo -로</td>
<td></td>
</tr>
<tr>
<td>ili 이리 ‘this way,’ kuli 그리 ‘that way,’ tyeli 더리 ‘that way (there)’</td>
<td></td>
</tr>
</tbody>
</table>

1.2.2.2 Verbal inflection
In Middle Korean, three verb endings were used to form nominals and modifiers: (1) -(o/u)m, (2) -(o/u)lq, (3) -(o/u)n. The endings reconstructed for Proto-Altaic were virtually identical: (1) *-m, (2) *-r, (3) *-n.

(1) Reflexes of *-m serve as nominalizers in many Altaic languages. For example, Old Turkic öl- ‘die,’ öl-i$m ‘death’; Mongolian naʃad- ‘play,’ nayad-um ‘game.’ In Manchu and other Tungusic languages the morpheme does not occur independently but only in combination with other verbal suffixes.

The ending -(o/u)m was the most widely used nominalizer in Middle Korean. For example, the noun yelum 여름 ‘fruit’ was derived from the verb stem yel- 열- ‘bear fruit,’ kelum 거름 ‘step’ from ket/kel- 걷/걷- ‘walk,’ elum 어름 ‘ice’ from el- 열- ‘freeze.’ Such nominals are, of course, still used today. But note that in Middle Korean the ending was also used to nominalize sentence predicates: yelwum 여름 ‘bearing fruit,’ kelwum 거름 ‘walking.’

What is noteworthy about this fact is that traces of a dual function can also be seen in Mongolian, where, in earlier texts, the nominalizing suffix -m was also used in predicates to express the present tense: yubu-m ‘goes, is going.’

5 The Contemporary reflexes of -(o/u)n and -(o/u)lq are used exclusively as modifier endings, but in the fifteenth century both also served as nominalizers. The use of -ki, which is now the most productive nominalizer, was rare at that time.
The reflex of *-r in Old Turkic formed present-tense modifiers; e.g., olur-ur ‘is sitting.’ In Mongolic languages the morpheme forms nominals; written Mongolian amu- ‘to rest,’ amu-r ‘rest.’ The reflex in Tungusic languages is generally used to mark modifiers in the future tense; e.g., Solon wâ- ‘kill,’ wâr (xonin) ‘(sheep) to be slaughtered.’

The Middle Korean ending -(o/u)lq was used for conjectures about the future, much as its Contemporary reflex still is today; for example, cwuki-주기- ‘kill,’ cwukilq (salom) 주길 (사로) ‘(person) to be killed’ (1459 Wŏrin sŏkpo 25:75b). As can be seen, the morpheme corresponds closely to its equivalent in Tungusic.

(3) The reflex of *-n in Old Turkic formed nominals; e.g., aq- ‘to flow,’ aqîn ‘flow.’ The Mongolic reflex has that same function; for example, Mongolian singge- ‘melt,’ singgen ‘liquid.’ The Tungusic situation is a little more complex, but there, too, the morpheme forms nominals. In Evenki, it is used to build adnominal modifiers that in turn form present-tense verbals; for example, the word тəгənми ‘you’re sitting’ is derived from *тəгən-си, which is composed of the stem тəгə- ‘to sit,’ the suffix -н, and the second-person suffix -сi.

Middle Korean -(o/u)n was, in its basic usage, much the same as its modern reflex. When attached to a verb, it marked past or completed action; e.g., taton (MWUN) 닫은 (뭉) ‘closed (door)’ (1481 Tusi ḍñhãe 8:61a).

To summarize, then, the three Middle Korean verb endings used to form nominals and modifiers were: the general nominalizer -(o/u)m; the future marker -(o/u)lq; and the marker of past or completed action -(o/u)n. To our way of thinking, the correspondence of this Korean triad with three almost identical Altaic morphemes constitutes the most serious evidence brought forward so far in making the case for a genetic relationship between the languages. (It is the same kind of structure Antoine Meillet made use of in his research on Indo-European languages.) In both Korean and Altaic, the corresponding morphemes are found in a part of the grammar where borrowing rarely occurs, and, just as Meillet argued, it is difficult to imagine that the correspondence could be completely accidental. The correspondence is limited in its scope; it alone does not prove the genetic hypothesis. For that, robust rules must be established for interlocking lexical correspondences that in turn lead to other discoveries about linguistic prehistory. Nevertheless, the structural details of this particular comparison are too significant to be dismissed.

1.2.3 Korean and Tungusic

Although comparativists have proposed cognates from all three branches of Altaic, it is clear that the most likely correspondences for Korean vocabulary
are not evenly distributed. Few potential matches are found in Turkic; a slightly larger number of look-alikes can be seen in Mongolic. For example, in basic Mongolian vocabulary, *naran ‘sun’ bears a strong resemblance to Middle Korean *nal 날 ‘day’; *nidin < *nun-din ‘eye’ to Korean *nwun 눈 ‘id.’ Also, the stem of the first-person pronoun, *na- (attested in the locative *nadur and the accusative *namayi), looks identical to Korean na 나 ‘I’; Mongolian oru- ‘enter’ resembles wo- 오- ‘come’; yar- ‘to exit’ is similar to ka- 가- ‘go.’

But the greatest number of viable comparisons by far are found in Tungusic. This is particularly true of Southern Tungusic, a branch of the family consisting of ten or so languages, the best known of which is Manchu.

Korean was influenced by Manchu. The Manchu people were the last Altaic conquerors of China and Korea and the rulers of the empire during the Qing dynasty, but even before that they had occupied, for some time, lands to the immediate north of Korea. The Manchus are moreover believed to be the descendants of the Jurchen, a people who left numerous monuments throughout the northeastern part of the peninsula itself, territory which they considered to be part of their homeland. Korean records preserve clear cases of cultural borrowing from Manchu during the Qing period. But other vocabulary shared by the two languages consists of the more humble words of everyday life.

At least 250 Manchu lexical items correspond to Korean words in more than a superficial way. For the most part, these words belong to the kind of vocabulary considered basic; the correspondences are those proposed above for Altaic. Here is a small sampling: Ma. cejen ‘upper part of the chest,’ K. cec 척 ‘breasts’; Ma. coco ‘penis,’ cwoc 쓔 ‘id.’; Ma. deke, deken ‘a rise, high place,’ K. -tek- 덕 ‘id.’ (attested in place names); Ma. fatan ‘sole of the foot,’ K. patang 바닥 ‘bottom’; Ma. ferehe(singgeri) ‘bat,’ K. polk(cwuy) 별(🎁) ‘id.’; Ma. golo ‘river bed,’ K. kolom 河 ‘river’; Ma. gu ‘jadite, precious stone,’ K. kwusul 鉱 ‘gem, precious stone’; Ma. hacin ‘kind, sort,’ K. kaci 가시 ‘id.’; Ma. jahari ‘pebbles and stones found along a river bed,’ K. cakal 자갈 ‘gravel’; Ma. mu-ke ‘water,’ mul 물 ‘water’; Ma. na ‘earth, land,’ note also, Nanai na ‘id.’ (the ethnonym itself means ‘local people’), K. nalah 나람 ‘country, land’ (-lah is a suffix).

A few noun comparisons possibly represent early cultural or contact loans. For example, Manchu bele ‘rice’ could be so connected to pwoli 보리 ‘barley,’ and Manchu mere ‘buckwheat’ to Korean mil 밀 ‘wheat.’ Manchu mama ‘smallpox’ alongside Korean mama ‘id.’ is also a suspicious comparison for this reason. Manchu morin ‘horse’ and Korean mol 물 ‘id.’ is another.

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6 The low–low tone structure of the Middle Korean form is more typical of loanwords than native vocabulary.
7 These crops have been cultivated on the Korean peninsula since the Mumun period (c. 1500–850 BC); less is known about the history of Manchu crop cultivation.
But another type of vocabulary is relatively free from such concerns about borrowing. In the comparison of Manchu with Korean, what is especially remarkable is that a large number of apparent correspondences are inflecting forms, verbs, because that lexical category in Korean is known to be particularly resistant to borrowing. And at least seventy Manchu verb stems bear a close resemblance to Korean forms. Here is a selection of about half of those:

<table>
<thead>
<tr>
<th>Manchu</th>
<th>Korean</th>
</tr>
</thead>
<tbody>
<tr>
<td>dasa- ‘rule, correct’</td>
<td>tasoli- 다스리- ‘rule, govern’</td>
</tr>
<tr>
<td>dori- ‘gallop’</td>
<td>tol- 돌- ‘go at a gallop’</td>
</tr>
<tr>
<td>ete- ‘overcome, win’</td>
<td>et- 염- ‘get, obtain’</td>
</tr>
<tr>
<td>fata- ‘pinch, pick (fruit)’</td>
<td>pto- 부쳐- ‘pick, pluck, gather’</td>
</tr>
<tr>
<td>firu- ‘pray, curse’</td>
<td>pil- 빌- ‘pray, beg’</td>
</tr>
<tr>
<td>fithe- ‘snap, spring, pluck, play (a stringed instrument)’</td>
<td>ptho- 뽀- ‘play on (a stringed instrument), beat (cotton) out’</td>
</tr>
<tr>
<td>foro- ‘spin, turn, face, turn toward’</td>
<td>pola- 빠라- ‘hope for, expect’</td>
</tr>
<tr>
<td>foso- ‘shine’</td>
<td>pozoy- 불씀- ‘shine’</td>
</tr>
<tr>
<td>fufu- ‘saw’</td>
<td>pwupuy- 부쉻- ‘rub’</td>
</tr>
<tr>
<td>fulgiye- ‘blow’</td>
<td>pul- 불- ‘blow’</td>
</tr>
<tr>
<td>furu- ‘slice finely, grate’</td>
<td>poli- 빠리- ‘cut with a sharp instrument’</td>
</tr>
<tr>
<td>fuse- ‘propagate, reproduce’</td>
<td>psi 쑥- ‘seed’</td>
</tr>
<tr>
<td>fusu- ‘sprinkle (water)’</td>
<td>puz- 불- ‘pour’</td>
</tr>
<tr>
<td>gai- ‘take’</td>
<td>kaci- 가지- ‘take, keep’</td>
</tr>
<tr>
<td>goci- ‘draw, extract, press out’</td>
<td>kwocwo 고조 ‘device for extracting dregs from oil or wine’</td>
</tr>
<tr>
<td>hala- ‘exchange, change’</td>
<td>kal- 갈- ‘change’</td>
</tr>
<tr>
<td>here- ‘ladle out, fish for, take out of water with a net’</td>
<td>kelu- 거르- ‘strain, filter’</td>
</tr>
<tr>
<td>hete- ‘roll up, fold’</td>
<td>ket- 걷- ‘fold up, roll up’</td>
</tr>
<tr>
<td>holbo- ‘connect, join, pair’</td>
<td>kolp- 늙- ‘line up together’</td>
</tr>
<tr>
<td>ili- ‘stand, stop’</td>
<td>nil(u)- 넣- ‘come up, stand up’</td>
</tr>
<tr>
<td>jafa- ‘grasp, hold, grip’</td>
<td>cap- 잡- ‘grasp, hold, catch’</td>
</tr>
<tr>
<td>jirga- ‘be at ease, enjoy leisure’</td>
<td>culki- 즐기- ‘enjoy’</td>
</tr>
<tr>
<td>karka- ‘scrape w. chopstick’</td>
<td>kul- 쿼- ‘scratch’</td>
</tr>
<tr>
<td>karma- ‘protect’</td>
<td>kalm- 갈- ‘put away, put in order, conceal’</td>
</tr>
<tr>
<td>mara- ‘decline, reject, refuse’</td>
<td>mal- 말- ‘cease, refrain from’</td>
</tr>
<tr>
<td>mari- ‘return, go back’</td>
<td>mulu- 묻르- ‘retreat, go back’</td>
</tr>
</tbody>
</table>
One suggestion for why these correspondences are so numerous is that Korean might have branched off from Tungusic after the Proto-Altaic unity. There is also the possibility that the physical proximity between Korean and Manchu (and/or other South Tungusic languages) might have reinforced ties of common heritage long after the languages became distinct entities.

But some Anti-Altaicists have more recently aired a totally different idea. Impressed by the resemblances between Korean and Tungusic in spite of their Anti-Altaicist views, they have suggested that Korean and Tungusic are related to each other and to Japanese, but neither to Turkic or Mongolic. This school of thought, an offshoot of the Anti-Altaicist camp, is one that arose out of research comparing Korean with Japanese. 8

1.3 Japanese

Korean has been compared with Japanese even longer than with Altaic. Considering the prominence of Japanese in the world and the similarity of its structure to that of Korean, the attention is understandable. In 1717, well before the comparative method was even developed, the Japanese Confucian Arai Hakuseki speculated that the two languages must have had an earlier historical relationship. Later in the same century, in 1781, still long before the methodology of historical linguistics was known in Japan, Fujii Teikan suggested the two must have come from a common source. Serious

8 This hypothesis is described in Unger (1990).
comparative research, however, actually began in 1879, with the publication of a 48-page study on the subject by William George Aston. Aston, a British consular officer stationed first in Tokyo, then (as Consul-General) in Seoul, was a graduate of Queens University Belfast in Classics and Modern Languages who became a serious Japanologist during his time in Japan. Before his death in 1911, Aston authored numerous highly regarded books and articles on Japanese history, literature, religion, and language, including the first modern grammar of the language. As an educated Victorian, Aston was thoroughly versed in Greek, Latin, and Sanskrit and the reconstruction of Indo-European, and he was an avid student of Japanese language and literature, as well.

Aston’s knowledge of Korean, however, was much shakier and in most cases second-hand. He acknowledged that his principal source of information had been some manuscript manuals prepared by Japanese interpreters resident in the Japanese settlement in Korea, as well as, for the grammar, a sketch in Dallet’s “Histoire de l’Eglise de Corée.” It is undeniably impressive that in spite of this faulty and fragmentary knowledge of Korean, many of his observations and conclusions are still valid. He wrote, for example, that “the Korean word chi˘l [sic] ‘a Buddhist temple,’ must be the original of the Japanese tera, which has the same meaning.” Still, the fundamental imbalance between what Aston knew about Japanese and what he knew about Korean could not help but handicap his comparative work.

Traces of this imbalance remained in comparative research long after Aston, and to an extent even today. By the time Aston’s article appeared, modern linguistic science had reached Japan, and within a few years serious Japanese scholars picked up the idea of a genetic relationship and pursued it. This late nineteenth- and early twentieth-century scholarship in Japan culminated in the 1910 and 1929 works of Kanazawa Shōzaburō, a comparative linguist from Tokyo Imperial University who argued that both Korean and Ryūkyūan were branches of Japanese, a baldly political view that remained unchallenged until after the Pacific War. Then, in the liberal atmosphere of the postwar period, Japanese comparativists expanded the scope of their research far afield, and the latter half of the twentieth century saw attempts to relate Japanese not only to Korean and Altaic, but also to Austronesian, Dravidian, Tibetan, and to a host of other languages. For a time, one popular idea was that Japanese was a “mixed language” with “genetic” connections to both north (Altaic) and south (Austronesian). In comparative linguistic circles in Japan, quite reputable scholars floated one sensational idea after another, and all the while, the only real progress toward resolving origin questions was

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9 His essay is also marred for the modern reader by blatantly racist asides larded into the text. Aston speaks, for example, of “the poverty of imagination . . . of these races” that had resulted from structural defects found in their languages.
produced by research into Japanese and Ryūkyūan dialects. Meanwhile, because this was in Japan, Korean remained understandably of secondary interest.

But in the West, too, comparisons of Korean and Japanese have usually begun with research on Japanese. Western scholars active in the field have invariably been trained Japanologists whose interests in Korean came later, and usually because of its purported genetic relationship with Japanese. Some of these linguists have pursued comparative work in the context of Macro-Altaic – that is, a relationship of Japanese to Korean was treated as subsidiary to the grander comparative scheme that would include Japanese within an expanded Altaic family. The best-known publication in this genre was Roy Andrew Miller’s 1971 book *Japanese and the Other Altaic Languages*, a work that won general acceptance among Altaicists, especially in Russia and parts of Europe, and since that time their explorations of the genetic affinities of Korean have generally been shaped by the Macro-Altaic agenda. Most linguists in North America and Western Europe, however, have continued to focus primarily on establishing a link between Japanese and Korean. For them, Altaic has remained largely an afterthought.

The seminal modern work of this kind was Samuel E. Martin’s 1966 article in *Language*, “Lexical Evidence Relating Korean to Japanese.” Martin’s central contribution in that essay was to put order into what had before been unsystematic. He began with 265 lexical pairs, Japanese and Korean words he believed were etymologically linked. Then, rather than remain content with pairing look-alikes (as other comparativists had done), Martin drew up interlocking correspondences for each phoneme in each lexical pair. He realized that no matter how startling the resemblances might be, the pairings were worthless for comparative purposes unless rules could be established explaining how the modern words had developed from the proto forms. Finally, he classified the pairs into three categories: those of equivalent meaning with perfect fit; those of equivalent meaning with partial fit; those with perfect fit but divergent meanings. For good measure he added 55 more word pairs he suspected were linked for a total of 320 proposed etymologies.

Yet, in spite of this systematic treatment, Martin’s article was subsequently criticized, sometimes sharply. For one thing, many of the etymologies it included, especially those in the second and third categories, were judged to be implausible. But the strongest objections were leveled at the rules themselves. Matching all the phonemes in each word pair had resulted in such a complex set of correspondences that a single vowel in one language, say, could correspond to as many as six vowels in the other language, a consonant could correspond to four or five different matches. Thus, as Martin wrote, the reconstructed vowel system was “of necessity rich”; sixteen reconstructions were used to represent the correspondences of vowels. And consonant correspondences required the reconstruction of complex consonant clusters. In other
words, critics thought the treatment was too mechanical, and that the reconstructions were no more than formulations reflecting that mechanical process and bearing no resemblance to real language. In addition, Altaicists objected that no attempt had been made to verify the comparisons by independent witness, such as, say, through equivalents found in “other” Altaic languages. Nevertheless, despite the criticisms from some quarters, Martin’s article won applause and acceptance from others, and formed the basis upon which much of the subsequent work comparing Japanese with Korean was based. Over the next four decades historical research resulted in sharper arguments and better data used in the comparisons, especially for Korean. Western knowledge of the Korean language and its history has unquestionably improved.

Of course, the source of that knowledge and its improvement has naturally come largely from research advances in South Korea. In the decades following the end of the Korean War, linguistics underwent a remarkable boom in interest and expertise in that country, and advances and new discoveries continue to be made there today. Moreover, in the twenty-first century Korean scholars are ever more closely linked to colleagues in the West. Research findings are shared. Scholarly papers are written in English. But differences remain. For the most part, Korean comparativists and historical linguists do not share their American and European colleagues’ preoccupation with Japanese connections; for them, the question of possible Korean links to Japanese is of secondary interest, and only within the context of Macro-Altaic.

A genetic relationship between Korean and Japanese is widely accepted today in the West nevertheless. In North America, that hypothesis has at least as much currency as any of the various versions of the Altaic hypothesis. And yet, it is difficult to say how much closer we are now than we were in 1966 to resolving the questions surrounding the relationship between Korean and Japanese. As Martin himself later wrote, in 1991, “[t]here is no general agreement on the genetic relationships of either Japanese or Korean” (p. 269). Still, failing that ultimate prize, much progress has in fact been made in uncovering the prehistory of both languages. At the very least, we are beginning to understand how very complex prehistoric change was, and how much it altered the phonological and morphological structure of the two languages. As a result, instead of rushing to apply the comparative method to Japanese and Korean, or to compare either with Altaic, serious research has, in recent years, been concentrated more on first reconstructing earlier stages of each language independently. In other words, first reconstruct, then compare, rather than the other way around.

To our way of thinking, the single-minded focus of Western comparativists on the relationship of Korean to Japanese is overdone. At least judging from the present state of the art, there are at most 200 lexical pairs in Japanese and
Korean that look convincing, and no more than fifteen possible comparisons to be found in their sets of inflectional morphemes. In our view, the prospects for comparative work between Korean and Tungusic appear to be somewhat better. Recall how remarkably close the Altaic correspondences are for the three Middle Korean verb endings used to form nominals and modifiers: (1) -(o/u)m, (2) -(o/u)lq, (3) -(o/u)n. Only one of the three, -(o/u)m, appears to have a reflex in Old Japanese: -mi.

There are, to be sure, matches between Korean and Japanese for which correspondences are not to be found in Altaic or anywhere else. One, for example, is the well-attested pair Korean syêm 씨 ‘island’ and Japanese sima ‘id.’ And there are numerous others like it, including nat 洞 ‘sickle’: nata ‘hatchet’; path 밭 ‘(dry) field’: pata/patakay ‘id.’; and patah 바다 ‘sea’: wata (< *bata) ‘id.’ The extent to which such look-alikes resulted from cultural contact or came down as inheritances from proto forms cannot, at the present time, be known. And until such time as interlocking correspondences, whether Martin’s or anyone else’s, produce the critical mass described at the beginning of this chapter, such matters can never be completely clarified.

Ultimately, it is more likely than not that Korean is related to Japanese, though at the present state of our knowledge it is impossible to say just how distant such a relationship, if it exists, might be. What we do know is that the task of proving the relationship remains as yet very much incomplete.

1.4 Toward history

Experts are not in complete accord about the origins of Korean. Despite the perceived centrality of the question, we cannot yet know to what extent the numerous resemblances of Korean to other languages in northeastern Asia truly reflect development from a common origin, or are the result of long-term, intimate contact instead. The evidence of kinship with Altaic, especially with Tungusic, and with Japanese, is strong. The correspondences tantalize. And yet, what is missing is the enumeration of new information provided by those relationships. What do other languages tell us about Korean’s ancestral, prehistoric structure? What did that earlier language sound like? Speculation about such issues excites the imagination. But, still lacking a breakthrough, the myriad questions surrounding them have not been definitively resolved.

In the next chapter we will visit the beginnings of written history on the Korean peninsula. Those earliest records were written by outsiders, the Han Chinese, who wrote down impressions of the languages and words they heard spoken there. As we will see, their transcriptions provide the earliest adumbrations of Korean linguistic history.
In the world today, few nations are as homogeneous as Korea. There are no ethnic or linguistic minorities anywhere in its indigenous population. But the kinship-like bonds of this nation, together with its ties to the land itself, have fostered a monolithic view of the past. There is a tendency among Koreans to think of every artifact taken from Korea’s soil as the handiwork of their forebears, every ancient tribe as ancestors, all prehistoric languages as forms of early Korean. However, in the remote past the Korean peninsula was a multicultural place.

Just when Korea became so homogeneous is not altogether clear, but certainly, there was a time when many diverse groups of people lived in that part of the world. Such was clearly the case around the beginning of the Christian era. In 108 BC, when Han Chinese forces first established commanderies on the peninsula, the region was already filled with local polities. In their interaction with these local groups, a process which had already been going on for centuries, the Chinese transcribed a scattering of names as best they could in phonograms. Some of the group names are thus preserved in Chinese historical annals; and from these records we know a little about where they lived and how they related to each other. But little institutional memory of the languages remains. For the most part, the vague records left about the peoples on the Korean peninsula provide room largely only for guesswork. Which of the groups were the ancestors of today’s Koreans? Out of which of their languages would Korean be formed?

2.1 Old Chosŏn

The earliest state mentioned in Chinese historical annals was Chosŏn. Even though it occupied only a small part of what is Korean territory today, this early state came to be central to Korea’s foundation myth. According to traditional reckoning, Korean history began in 2333 BC, when the founding ancestor Tan’gun 檀君 established his capital in an area near modern Pyongyang and called it “Chosŏn.” Because of the name’s cachet for nationhood, it was later adopted as the official name of the state by the founders of the
Yi dynasty (1392–1910), and it is still used as the name of the state in North Korea. To distinguish the original name from these latter-day usages, historians usually refer to it as “Old Chosŏn.”

No one can say for sure what “Chosŏn” meant. If the name ever had some clear significance it was lost long ago, for the characters with which it was
written were almost certainly no more than a Chinese transcription of what the state was called locally. And yet the Tan’gun story contains what some believe to be a suggestive clue. After founding his capital at Chosŏn, Tan’gun later moved it to a place called Asadal (asatal 阿斯達), which was the name of a nearby mountain. In that name, -tal appears to have been a suffix much like a similar-sounding word used for ‘mountain’ in Koguryŏ place names. The part that remains, asa-, resembles both Middle Korean achom 아종 ‘morning’ and Japanese asa ‘id.,’ two words that have often been compared to each other and thought to have a common origin. Was it then an accident that the first of the two characters used to write Chosŏn (朝鮮) could mean ‘morning’? A problem with this inference is that the Chinese have always read the character in the name with a pronunciation that could never be interpreted as ‘morning’ but only as ‘tide’ or ‘court.’ There is also thought-provoking speculation about a few other ancient words. One is wangkem 王儉, a title used for Tan’gun that apparently meant ‘ruler’ or ‘sovereign.’ Since wang 王 was Chinese for ‘king,’ kem may well have been the nearest native equivalent, an inference reinforced by its phonological resemblance to a Silla word for ‘king.’

Besides “Old Chosŏn,” there was also “Kija Chosŏn.” This was the second state said to have existed in ancient Korea. Kija (or the Viscount of Ki) was a nobleman of the Chinese Shang dynasty, described in Chinese records as the paternal uncle or brother of the dynasty’s last emperor. But when Kija remonstrated with the emperor over his corrupt practices, the emperor threw him into prison. After the Shang was subsequently overthrown by the Zhou, Kija took refuge in Chosŏn and established a state there (though just where is a hotly disputed topic in modern Korea). The new Zhou rulers, rather than pursuing this member of the previous dynasty’s nobility, rewarded Kija for his virtue and conferred upon him a peerage. At one time, this story was important to Koreans because it tied the nation’s origins to Chinese institutions and classical traditions. Now, however, in this latter era, when ancient connections to China are less valued, Korean scholars usually dismiss the story as legend; it is glossed over briefly in passing, and Old Chosŏn is described as giving way to what was traditionally the third successive state of ancient Korea, “Wiman Chosŏn,” which was, after all, a much better documented entity. Nevertheless, some philological scholars have recently noted that the term used in Paekche for ‘king’ had a phonological shape similar to that of “Kija”; as a result, there is some speculation that the name might actually have been another early transcription of a local word for ‘ruler.’ Whether true or not, the reasoning shows the tantalizing nature of these ancient names and titles.
2.2 The Puyŏ and the Hán

After the Han Empire fell in AD 220, China came under the control of three kingdoms, Wu, Shu, and Wei. The northernmost of these kingdoms, Wei, bordered what is now Korea, and the account of that state known as the *Wei zhi* 魏志 contains a “Description of the Eastern Barbarians” (*Dong Yi zhuan* 東夷傳), the term the Han had used for the indigenous peoples of the area. This description is regarded as reasonably reliable because it was based upon an ethnographic survey the Wei had conducted following a victory against Koguryŏ in AD 244. According to the survey findings, the languages of the local inhabitants were roughly divided into three groups, the Suksin 肅慎, the Puyŏ 夫餘, and the Hán 韓. (These names are of course the modern Korean readings of the transcriptional characters; what the names actually sounded like at the time is not clear. Even more of a mystery is what the words they represented might have meant, or even what languages they might have come from.) The various Suksin and Puyŏ groups were scattered over Manchuria, southern Siberia, and the northern half of Korea; the Hán peoples occupied the southern half of the peninsula.

2.2.1 The Puyŏ languages

If the Chinese descriptions are to be believed, the “Puyŏ language group” included four languages: Puyŏ, Koguryŏ, Okchô, and Ye. The Chinese considered the Puyŏ to be friendly allies, and perhaps for that reason they appear to have been the starting point for describing nearby peoples. The Koguryŏ, on the other hand, were warlike and constantly giving the Chinese trouble; they dominated many of the surrounding peoples, including the Okchô and Ye. Here is what the *Dong Yi zhuan* had to say, first of all about Koguryŏ: “According to old statements by the Eastern Barbarians, the Koguryŏ are a special branch of the Puyŏ; in language and in many things they are similar to the Puyŏ, but they differ from them in character and clothing.” Of the Eastern Okchô, the document reported that “the language is much the same as Koguryŏ but with small differences here and there.” And as for the Ye, it was noted that “their elders say of themselves that they are of the same branch as the Koguryŏ; their language, laws, and customs are for the most part the same as those of the Koguryŏ; in their clothing there are differences.” The *Hou Hanshu* (fifth century) gave similar descriptions about these peoples and their languages.

The Chinese chroniclers further reported that the Puyŏ languages contrasted with those in the Suksin group. The Suksin peoples, which consisted

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1 Here the reading of the character 韓 is transcribed Hán to distinguish it from that of 漢, Hán.
largely of northern, semi-nomadic tribes, included the Úmnu, who were descended from the Suksin and related to the Mulgil and Malgal. Of the Úmnu, the *Dong Yi zhuan* said that “these people resemble the Puyo in appearance, but their language is not the same as that of the Puyo or Koguryo.” The “Description of the Mulgil” in the *Beishi* (659) described these nomadic people as “living north of the Koguryo, and their language is different.”

These descriptions are all we actually know about the Suksin languages. Suksin, Úmnu, Mulgil, Malgal – these are but names as far as the languages are concerned. All we have to work with are where the people who spoke them lived, what they were reported to look like, and what they practiced as customs. It is usually said that the Suksin were the ancestors of the Jurchen, but the only basis for that assertion is such extralinguistic evidence as their geographical distribution and physical appearance. Though possible, perhaps even likely, it is not even certain that the Suksin languages were Tungusic at all. Not a single word from any of them has been preserved.

The Puyo languages are different in this respect from Suksin only because one of them, Koguryó, became a powerful and well-established kingdom. But the linguistic evidence from Koguryó, too, is neither voluminous nor of high quality, and even those traces of the language that do exist are not unquestionably of Koguryóan origin. The evidence and its problems will be discussed presently.

2.2.2 *The Hán languages*

Turning to the south, the Wei portrayed the peoples there as significantly different from the Puyo and Koguryo. The Hán groups were not nearly so far along in the process of state formation; they were farther from the Chinese not only geographically but in their customs and lifestyles, too. The Wei survey divided them into three general groups, the so-called “Three Hán”: the Mahan, the Chinhan, and the Pyönhan (which were also called the Pyönjin). The Mahan communities, which were the most numerous, were found in the southwest and as far north as modern Kyŏnggi; the Chinhan were in the southeast; the Pyönhan were also in the southeast and living among the Chinhan, but some of their communities were found west of the Chinhan beyond the Naktong River. Thus, the Mahan lived in territory that would later become the kingdom of Paekche. The Silla kingdom arose out of Chinhan lands. And Pyönhan is generally recognized as related to the later state of Kaya (or Kara).

How did the various Three Hán communities relate to each other linguistically? The *Dong Yi zhuan* notes only that, “The Chinhan are found east of the Mahan . . . their language is not the same as the Mahan”; and “the Pyönjin lived mixed together with the Chinhan . . . their languages, laws, and customs
resemble each other.” From these statements, it appears that the Pyŏnhan and Chinhan languages were similar to each other, and the Mahan different from both. However, another archival source, the Hou Hanshu (fifth century), casts doubt on that conclusion: of the Chinhan and Pyŏnhan, it says, rather, that “the languages and customs have differences.” This textual confusion about basic facts serves as a reminder of how tenuous conclusions based upon such sources really are. The ancient Chinese authors may have had no direct access to information; and they certainly did not know any of the languages themselves, probably not a word. For them, the Three Hán existed on the extreme outer fringes of the civilized world; they were exotic and half savage, and whatever they spoke was incomprehensible to Chinese ears. Perhaps it is better to say only that the languages of the Three Hán very likely resembled each other but also had differences. What we know for sure is that the Three Hán coalesced later into the two states of Paekche and Silla. And the state of Kaya, which had formed in the Naktong River basin, was incorporated into the kingdom of Silla in the sixth century.

An even more difficult question concerns the relationship between the Puyo˘ and Hán language groups. The compilers of Chinese histories wrote about language, but their writings contain no mention of this issue. And later texts written by Koreans, including the Samguk sagi, contain not a single word about the languages spoken in the Koguryŏ, Paekche, and Silla kingdoms, much less offer suggestions as to what relationships could have obtained between them. These later authors at least must have known one or more of the languages, yet, in what has been preserved of their writings, they were silent about linguistic matters. For even the most basic information about the formation of Korean, one has to look beyond the historical narratives.

2.3 The Three Kingdoms

It was in the Three Kingdoms period that the first true states took shape on the Korean peninsula. The Wei survey had found no more than tribal federations, but by the fourth century these loosely defined groups had transformed themselves through a series of wars and political consolidations into impressive and sophisticated states. The eponymous “three kingdoms” of the period, Koguryŏ, Paekche, and Silla, were the political entities that would later be described in the Samguk sagi, the “History of the Three Kingdoms” (see Map 2). But Puyo˘ also existed as a fully articulated state during this period (at least until it was absorbed by Koguryŏ in 370), as did Kaya. The first of the states to emerge were Puyo˘ and Koguryŏ, which were already well on their way to statehood at the time of the Wei survey. Paekche and Silla arose a bit later. Just when Kaya became a state is not clear.
2.3.1 *The Samguk sagi*

Our information about the Three Kingdoms period comes from the *Samguk sagi*. Compiled by Kim Pusik in 1145, it is Korea’s oldest extant history. Koguryo, Paekche, and Silla each had its own national history, but none of these has survived. All we know from those and other earlier historical sources is what was incorporated into the *Samguk sagi*, or, in some cases, into Japanese histories. Writing two hundred years after the fall of Unified Silla, Kim Pusik structured his work after the retrospective style of imperial Chinese histories, dividing its fifty volumes into four parts: narrative histories called “annals” for each of the three kingdoms; tables of dates and events; monographs or essays on various topics; and biographies.

Linguistic information can be found in the *Samguk sagi* monographs on geography. There are four of those. Volumes 34, 35, and 36 treat Silla geography. Volume 34 describes the history and extent of lands Silla controlled during the Three Kingdoms period, and then details the administrative divisions of those lands. Volume 35 recounts what had happened to the administrative units Silla had seized from Koguryo, while volume 36 treats the territories Silla had taken from Paekche. Volume 37 is devoted to Koguryo and Paekche. The *Samguk sagi* has a distinctly Silla bias in almost all its parts, and in the volumes on geography, this imbalance is seen not only in the fuller treatment of the three volumes devoted to Silla, but in the structure of volume 37 as well. There the discussion of Koguryo place names, for example, is confined only to those parts of Koguryo that were later incorporated into Silla territory. The *Samguk sagi* is silent about the vast Koguryo lands extending from north of the Taedong River across the Yalu and into Manchuria.

2.3.2 *Koguryo*

As has been mentioned, Koguryo is the only Puyo language for which any linguistic evidence is believed to still exist. These fragments of language are difficult to decipher, however, since they consist solely of the words and morphemes out of which Koguryo names are composed. The most important of these proper nouns are the toponyms recorded in the *Samguk sagi* monographs on geography.

The majority of Koguryo place names are found in volumes 35 and 37. The basic data come from the names given in volume 37; the names in volume 35 provide supplementary and explanatory information. In volume 37, a Koguryo place name was often transcribed in two different ways. For example, what is now Suwŏn (a large city just south of Seoul) was written both as 買忽 and as 水城. Here is the form the entry in volume 37 took:

買忽 一云 水城
The first transcription, 買忽, was an attempt to represent the sounds of the Koguryŏ name using phonograms. The second transcription, 水城, used Chinese characters to approximate the meaning of the name, ‘water city.’ The second transcription, in other words, invited the reader to ignore the Chinese sounds associated with the characters and to read them as native words. This method of reading characters is called hun 訓 by Koreans (in Japan that same type of reading is called kun). The important thing to keep in mind here is that the two transcriptions in volume 37 represented two different ways of writing exactly the same name. Volume 35, on the other hand, was different. Unlike the names in volume 37, the names given in volume 35 reflected what had happened historically after the Three Kingdoms period, in the Unified Silla and Koryŏ periods.

In the Three Kingdoms period, the structure of place names had often been radically different from one place to another, and that remained true well after Silla had effected its unification of the peninsula in 668. In 757, however, the powerful Sillan monarch King Kyŏngdŏk carried out a reform in which all place names within the realm were made to conform to a rigid standard. From that point on, every significant place in Korea was given a Chinese-style name. Each was to be written with two Chinese characters, and both of those characters were to be read with standardized Sino-Korean pronunciations. Volume 35 of the Samguk sagi recorded these changes, as can be seen in the parallel entry for Suwŏn:

水城郡 本高句麗 買忽郡 景徳王改名 今水州
‘Susŏng County was originally Koguryŏ Maehol County; King Kyŏngdŏk changed the name; now it is Suju.’

The first part of this entry, 水城郡 ‘Susŏng County,’ was the name given under King Kyŏngdŏk’s rectification of names; the original Koguryŏ name came next; and Suju 水州 was the Koryŏ name used at the time the Samguk sagi was written. Notice that the characters used to write the name 水城郡 ‘Susŏng County’ were exactly the same as those used in one of the two original transcriptions of the Koguryŏ place name. But that original 水城 in volume 37 was completely different in nature from the 水城 in volume 35. That’s because in volume 37 the characters 水城 were read as the Koguryŏ words that meant ‘water city,’ whereas the same characters 水城 in volume 35 were read Chinese-style – that is, as Sino-Korean. We can well imagine that the choice of names in this latter case simply meant changing the way the original transcriptional characters were read. But the result was a truly fundamental change. Korean place names would never again be the same.

For us today, the difference in the way these two geography volumes of the Samguk sagi were structured means that research on the Koguryŏ language
must be focused primarily on the place names given in volume 37. It is from that volume, in the two ways each place name was transcribed, that Koguryŏ words and morphemes can best be deduced. For in that volume, one of the two transcriptions gives us clues as to how the words sounded, and the other indicates what the words meant.

Another Koguryŏ place name (which meant something like ‘water valley city’) was transcribed with the same characters: 水谷城郡一云買旦忽. This entry confirms that the Koguryŏ word for ‘water’ sounded much like the reading for the character 買, and ‘city’ sounded like the reading for the character 忽. Thus, from these place names we know the identity of two Koguryŏ words, 買 ‘water’ and 忽 ‘city.’ How the phonograms 買 and 忽 were meant to be read is a problem that may never be completely solved. Nevertheless, since the characters were borrowed from China, the readings must at least have been similar to their pronunciations in China around that time. There are also other clues. For example, the phonogram 買 was often replaced by 美 or 弥 in other place names:

內乙買一云內余美; 買召忽一云彌酆忽.

And so, by reconstructing the Middle Chinese pronunciations of 買, 美, and 彌, we can surmise that ‘water’ must have sounded something like *meːj, *mi’, or *mji. Or, if we assume that the traditional, Middle Korean readings were closer to the way characters were read in Koguryŏ, we arrive at something like *may or *mi (the reading of both of the latter two characters). Until other kinds of evidence are discovered, these are about the best approximations we can make for the sounds of this Koguryŏ word.

Altogether, scholars have found about 100 words used in Koguryŏ place names in the Samguk sagi. These data remain very much tentative of course, first of all because we can never deduce the phonemic structure of the words from phonograms alone. But there are other problems as well.

For one thing, a word was not always transcribed the same way. In the entry for ‘water valley city’ (given above), the pronunciation of 谷 ‘valley’ was indicated by the phonogram 旦, but that particular transcription is found in no other place name. However, since the sounds of ‘valley’ were indicated elsewhere by 頓 or 存, and since these characters had readings that were at least similar, ‘valley’ must have sounded something like *tan 단 (旦), *twon 돈 (頓), or *thwon 독 (存).

Other attestations were unique. That is the case with the following two entries, for example:

十谷縣一云德頓忽（‘Ten Valley District’）
於支存一云翼谷（‘Wing Valley’）
From these entries we deduce that the words for ‘ten’ (十) and ‘wing’ (翼) sounded something like *tek 덕 (德) and *eci 어지 (於支). But nowhere else were these words transcribed this same way, with indicators of the meanings as well as transcriptions of the sounds.

Then there is a still more serious question that has recently been raised about the nature of data derived from the Koguryō place names. The towns and administrative jurisdictions for which these names have been preserved were certainly located within the boundaries of the Koguryō kingdom; but, some ask, did not various other groups live in many of these areas? And that being the case, is it not likely that many towns and villages already had non-Koguryō names when the territories fell under Koguryō control? (In some cases the lands were only controlled by Koguryō for less than 200 years, from 475 to 668.) In other words, according to this line of reasoning, we do not necessarily know that all Koguryō place names were composed of Koguryō words. (It only takes a moment’s reflection to see the logic of this argument: Sapporo may be a Japanese city but the name is Ainu; the names Chicago and Terre Haute are not made up of English morphemes even though the people who live there speak English.) Absolute identification of these place names with Koguryōan is not an easy thing to do from geography alone. (Cf. Whitman 2002.)

However, it is important to note that the identification of these place names with the Koguryō language does not depend solely, or even principally, upon the fact that they were located in territories controlled by Koguryō. That would be unwarranted, for the reasons cited above (one cannot imagine that no other languages existed, or had left no distinct traces, on territory so recently brought under Koguryō control).

Rather, the belief that the place names so annotated were Koguryoan rests upon a totally different idea, a subtle cultural assumption that has to do with the nature of the transcriptions themselves. The reasoning goes as follows: first, Koguryō names were transcribed in a unique way. As explained above, this Koguryō method was a system in which a hun 訓 transcription was used to annotate the meaning, while phonograms were used in a second transcription to represent the sounds. For example, as cited above, the city that was to become Suwŏn was written 買忽一云水城, using the phonograms 買忽 to represent the sounds of the name (*mayhwol 매홀), and 水城 to approximate the meaning of the name, ‘water city.’ Now, given that kind of system, how could the Koguryō place names thus annotated represent words in some other language? It strains the imagination to suppose that Koguryō scribes might deliberately devise a hun transcription to represent meanings of morphemes making up some foreign name. But then, it might be argued, could not the transcription have been devised earlier, created by some other literate people, and thus already have existed when the territory came under Koguryō control?
For example, one might note that Paekche had controlled the territory where modern Suwŏn is before it was taken over by Koguryŏ; could not the transcription, then, represent a Paekche name? But that scenario, too, seems unlikely, for one very good reason: we do not see that kind of bipartite system in the records of Paekche place names.

The broader sociological and historical claim incumbent in this assumption about Koguryŏ place names has to do with how writing practices developed. Since Chinese writing reached Koguryŏ well before it did Paekche and Silla, it seems safe to assume that many of the writing methods used in the latter two kingdoms came to them via that northern neighbor. And if that was so, it is highly likely that the hun method of transcription itself was devised, or at least refined, by members of the Koguryŏ ruling classes or their scribes. Inevitably, this Koguryŏ invention reached Silla and Japan, where it would shape writing practice down to the present day.

Confirming evidence is hard to come by, however. Data from place names north of the Taedong River, in the “original” Koguryŏ homeland, are conspicuously missing in the Samguk sagi materials. For years scholars have pored over Koguryŏ writing found in stele inscriptions, including that of the famous Kwanggaet’o Stele just north of the North Korean border, yet, to date, no one has found identifiable morphemes in any place or personal name. For all these reasons, conclusions about the Samguk sagi place names unfortunately remain tentative.

2.3.2.1 Koguryŏ lexical strata
Still, such problems notwithstanding, the Koguryŏ corpus contains strata that can readily be compared to known sets of vocabulary. Many of the words appear to be Altaic – or at least Tungusic. For example, the word for ‘water’ discussed above (which sounded something like *may or *mi) had a phonological shape that strongly resembled Evenki mă ‘water,’ Manchu muke ‘id.,’ and Middle Mongolian mören ‘lake, river.’ And it looked even more like Japanese mi(du) ‘water.’ This resemblance suggests that Koguryŏan was linked to Japanese as well as to its continental neighbors. Overall, Tungusic look-alikes are numerous. They include, among other words, Koguryŏ 内米 ‘pool,’ which compares to Tungusic forms reconstructed for ‘lake, sea’ (*namu, *lamu); Koguryŏ 難隱 ‘seven,’ which looks like *nadan ‘seven’; and various transcriptions of ‘earth’ or ‘dike’ (內, 那, 奴), which resemble Manchu na ‘earth.’

Some Koguryŏ words strongly resemble Japanese. For example:

<table>
<thead>
<tr>
<th>Koguryŏ</th>
<th>Old Japanese</th>
</tr>
</thead>
<tbody>
<tr>
<td>旦 *tan, 頓 *twon, 吞 *thon</td>
<td>tani ‘valley’</td>
</tr>
<tr>
<td>烏斯含 *wosaham ‘rabbit’</td>
<td>usagi ‘rabbit’</td>
</tr>
<tr>
<td>那勿 *namwul ‘lead’</td>
<td>namari ‘lead’</td>
</tr>
</tbody>
</table>
Figure 1. The Kwanggaet’o Stele
This stone monument stands just north of the Yalu River, in what is now Jilin Province in China. Erected in 414 as a memorial to King Kwanggaet’o of Koguryŏ, the stele is one of the principal primary sources of information about the history of that ancient kingdom. But because its inscription relates a story of wars the king waged against Japanese forces (the Wa倭), the interpretation of the text and where those wars took place remains highly controversial. Carved out of one enormous slab of granite, the monument is almost 7 meters tall, with a girth of almost 4 meters.
Of these resemblances to Japanese, most startling of all are the numbers:

<table>
<thead>
<tr>
<th>Koguryo</th>
<th>Old Japanese</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘3’</td>
<td>密 *mil</td>
</tr>
<tr>
<td>‘5’</td>
<td>于次 *wucha</td>
</tr>
<tr>
<td>‘7’</td>
<td>難隱 *nanun</td>
</tr>
<tr>
<td>‘10’</td>
<td>德 *tek</td>
</tr>
</tbody>
</table>

密 *mil | mi
于次 *wucha | itu
難隱 *nanun | nana
德 *tek | topo

These four words for 3, 5, 7, and 10 are the only numbers preserved in the corpus of Koguryo place names, and all look remarkably like Japanese. Such a resemblance could hardly be accidental. It is a powerful indication that a language closely related to Japanese once existed on the Korean peninsula, and that language is usually believed to have been Koguryoan.

At the same time, however, the vocabulary found in the Koguryo place names includes even more elements that relate solidly to Middle Korean and thus to the mainstream development of the Korean language. At least thirty such comparisons seem secure. For example:

<table>
<thead>
<tr>
<th>Koguryo</th>
<th>Middle Korean</th>
</tr>
</thead>
<tbody>
<tr>
<td>於斯 *esa ‘horizontal’</td>
<td>es- ḍi-  ‘crosswise’</td>
</tr>
<tr>
<td>也次 *yacho ‘mother’</td>
<td>ezi 어져 ‘mother, parent’</td>
</tr>
<tr>
<td>波兮 *phahyey, 波衣 *phauy, 巴衣</td>
<td>pahwoy 바회 ‘boulder’</td>
</tr>
<tr>
<td>別 *pyel ‘pile’</td>
<td>pol 볼 ‘pile, layer’</td>
</tr>
<tr>
<td>首 *sywu ‘ox’</td>
<td>sywo 소 ‘ox’</td>
</tr>
</tbody>
</table>

Occasionally a Koguryo element shows greater similarity to the Silla corpus than to Middle Korean. For example, Koguryo 於乙 ‘spring’ corresponds to the Silla element 乙 ‘well,’ while the Middle Korean words soym 실 ‘spring’ and wumul 우물 ‘well’ are completely different forms. But such connections to a contemporary language believed ancestral to Middle Korean only underscore the Koreanness of the lexical strata.

In sum, Koguryo place names contain at least three strains of vocabulary. Some of the words can clearly be linked to Korean; some are Japanese-like; and some others look broadly Altaic and/or Tungusic. What are we to make of these facts?

### 2.3.2.2 The place of the Koguryo language

The multiple groupings of the Koguryo toponyms appear to be evidence of links that obtained between Altaic, Korean, and Japanese. In Korea, most researchers have long believed that the language spoken in Koguryo was in fact a “dialect” of Old Korean, and accordingly treat the toponyms as Korean words pure and simple. Others, particularly in Japan and the West, have
been more impressed with the lexical resemblances to Japanese. However, if
the various strains of vocabulary represented the lexicon of a single language,
a more logical conclusion is that Koguryŏan was related not just to Korean
or Japanese, but to both. The corpora are too large and the words too basic to
represent merely layers of cultural borrowing. And if that was so, Koguryŏan
might possibly have been a language intermediate between what later became
those two important world languages.

2.3.3 Paekche

Chinese visitors took note of the Paekche language. In the “Description of
Paekche” found in the Liang Shu 梁書 (629), we are told that “At present, the
language and clothing are about the same as those of Koguryŏ.” This state-
ment most likely referred to what was spoken by the rulers of the state. As we
have seen, Paekche came into being on Mahan territory, and from that fact
historians surmise that the basic population there spoke a Hán language.
But historians also agree that these southern people were ruled over by a
Puyo elite, immigrants from the north who had come in and founded the
Paekche kingdom. Moreover, a speech difference between the two groups is
strongly suggested by the Zhou Shu 周書 (636) in its “Description of Strange
Lands,” where we read: “The surname of the [Paekche] king is Puyo 夫餘;
he is known by the name *elaha 이라하 於羅瑕, the people call him *kenkilci
건길지 鞅吉支, and both of these terms refer to what in Chinese is called
‘king.’” This mention of two different words is usually taken as direct evidence
that the Puyo overlords and the Hán governed spoke different languages.

The few fragments of the Paekche language that still exist today strongly
resemble Sillan. This fact suggests that the language of the rulers did not
displace the language of the people they ruled, but only influenced it to a
certain extent. That would mean that Paekchean was basically a Hán language
with a Puyo superstratum.

Of the three kingdoms, Koguryŏ, Paekche, and Silla, the linguistic infor-
mentation from Paekche is the most difficult to glean from the Samguk sagi
transcriptions. As was mentioned earlier, the geography essays are our principal
source of information in that work, but the Paekche place names given there are
far more opaque than was the case for Koguryŏ. The reason is that, for
whatever reason, very few Paekche place names in volume 37 are represented
with the same kind of dual transcription, one for sound and the other – the hun
reading – for meaning. Thus, most of whatever information can be gleaned
comes from volume 36 (which tells what happened to the Paekche place
names after the Three Kingdoms period, in the Unified Silla and Koryŏ
periods). There, for example, one of the recurring elements in Paekche place
names is 夫里. This form appears to correspond to the word *pul ‘plain’ in
Silla place names, and since it is transcribed with two characters, it seems to show that a syllable-final vowel was preserved in Paekchean. That kind of guesswork is just about the extent of what can be known structurally about the Paekche language from the *Samguk sagi* place names.

There is yet another source of information about the Paekche language. The *Nihon shoki*, a Nara-period Japanese history traditionally dated to 720, contains a few dozen fragments of Paekche words, words which, for the most part, were taken from records brought to Japan by Paekche envoys or immigrants. (The Paekche state and the Japanese court had long enjoyed good diplomatic relations, and, following Silla’s destruction of Paekche in 663, many of its people purportedly fled to Japan.) The meanings of more than three dozen of these words are decipherable. Some of the words are written in phonograms in the *Nihon shoki* itself, but, in addition, Japanese pronunciations of many more were transcribed in a late thirteenth-century compendium using *katakana* orthography. These transcriptions include such words as *kuma* 久麻 ‘bear,’ *nuri* ว์ฟ ‘ford,’ *sema* 斯麻 ‘island,’ *nirimu* 爾林 ‘master,’ *mure* 武禮 ‘mountain,’ *aripisi* ว์ฟ ‘south,’ and *sasi* ว์ฟ ‘walled city.’

The best-known evidence adduced for the Paekche language, however, comes from a much later period. In the Middle Korean text *Yongbi ᄀᆞ朝鲜* of 1447, the name of the old Paekche capital 熊津 ‘Bear Ford’ was transcribed as *kwŏm maⁿlo* 獅마또로, and for obvious reasons the pronunciation is thought to have reflected a trace of the Paekche language. At the same time, however, the element *kwŏm* 獅 in the name is taken to be an older form of Middle Korean *kwŏm* ㅘ ‘bear,’ because even the tone shows a regular, Middle-Korean development. And comparativists have long noted the striking resemblance to Japanese *kuma* ‘bear,’ which has the same second-syllable vowel as the Paekche form.

Paekche correspondences to Sillan and Middle Korean yield a few intriguing clues about the history of the Korean language. One example can be found in this entry from volume 36 of the *Samguk sagi*:

石山縣本百濟珍惡山縣... ‘Stone Mountain Prefecture was originally Paekche “珍惡 Mountain” Prefecture.’

In this Paekche name, the character 珍 was used to represent the meaning of the Paekche word, which was ‘stone,’ while the character 恶 was added as a phonogram to indicate that the word ended in a sound much like *-ak*. What is interesting about this transcription is that it compares to the Middle Korean word for ‘stone,’ which was *twŏl* 짓. The /h/ at the end of the MK form is believed to have developed from a velar stop *k* (see p. 147, below), a reconstruction supported by the modern dialect reflex [tok] (which is found distributed widely throughout the southern part of the peninsula, from North
Ch’ungch’ŏng to Cheju). The MK “Rising Tone,” in this case, resulted from the syncope of a second-syllable, high-pitched vowel: *twŏlōk > twŏlh : 돕. The Paekche form seems to lend support to the reconstruction of that second syllable.

Other Paekche words found in the Samguk sagi that correspond to Middle Korean vocabulary include:

<table>
<thead>
<tr>
<th>Paekche</th>
<th>Middle Korean</th>
</tr>
</thead>
<tbody>
<tr>
<td>沙 *sa</td>
<td>say 새 ‘new’</td>
</tr>
<tr>
<td>勿居 *mwulke</td>
<td>molk- 목- ‘clear’</td>
</tr>
<tr>
<td>毛良 *molyang</td>
<td>molo 모 ‘ridge, ridgepole’</td>
</tr>
</tbody>
</table>

To these words can be added vocabulary attested in the Nihon shoki; here are examples:

<table>
<thead>
<tr>
<th>Paekche</th>
<th>Middle Korean</th>
</tr>
</thead>
<tbody>
<tr>
<td>arosi ‘below’</td>
<td>alay 아래 ‘below’</td>
</tr>
<tr>
<td>sema ‘island’</td>
<td>syem 섬 ‘island’</td>
</tr>
<tr>
<td>aripisi ‘south’</td>
<td>alph 앞 ‘front’</td>
</tr>
</tbody>
</table>

2.3.4 Kaya

Kaya, a fourth kingdom on the Korean peninsula during the Three Kingdoms period, was smaller than the three major peninsular states and has never merited separate treatment in Korean annals. Still, situated on the lower reaches of the Naktong River, Kaya was able to maintain vigorous trading relationships with both the Chinese commanderies and the Wa in Japan. But squeezed as it was on both sides by Paekche and Silla, this small state was greatly constrained in how much it could grow and develop. Eventually, in the sixth century, Kaya was overrun and absorbed by Silla.

Much about Kaya remains mysterious. This is particularly true because of how the kingdom has been treated in Japan, where it occupies a special place in the historical imagination. Much has been made there of the fact that in the Nihon shoki, where it is known as “Kara” or “Mimana,” Kaya is presented as a colony or vassal state of the Wa in Japan. Some Korean historians, on the other hand, maintain that Kaya had that kind of relationship not with Japan but with Paekche instead.

Whatever the nature of the Kaya state might have been, only one word has been preserved of its language. That word is found in volume 34 of the Samguk sagi, which contains the following explanatory note for the word 旃檀梁 ‘Sandalwood [something]’:

城門名 加羅語謂門為梁云
‘Name of the fortress gate. In the Kaya language “gate” is called 梁.’
The interpretation of this note is convoluted. First, philologists note that the character 梁 was commonly used in Silla transcriptional convention to represent the Silla word for ‘ridge,’ a form ancestral to the Middle Korean word twol 돌 ‘ridge.’ Then, they reason, the sound value of that Silla word was taken and used to approximate the sounds of the Kaya word for ‘gate.’ (Although the reasoning might otherwise seem strained, such transcriptional strategies were very much in line with methods early Koreans and Japanese used to write their languages; in Japan, this particular kind of character usage was known as kungana.) What most catches the eye and tantalizes about this curious note is that the Japanese word for ‘gate, door’ is と.

2.3.5 Silla

Silla arose in the southeastern part of the Korean peninsula, on territory described in the Wei surveys as belonging to Chinhan tribes. According to the traditional story of its origin (the earliest version of which is found in the thirteenth-century work Samguk yusa ‘Vestiges of the Three Kingdoms’), Silla began as a statelet called Sŏrabŏl located where Kyŏngju is now. (In the same source we are told that Sŏbol 徐伐 (syepel), an alternate form of the name Sŏrabŏl 徐羅伐, was the word there for ‘capital.’) This tiny city-state gradually began to annex its neighbors until it dominated the area east of the Naktong River, and the confederation ultimately became the Silla kingdom.

What we can know about the Sŏrabŏl language is of course limited, to say the least. But it does not take a big stretch of the imagination to surmise that with the growth of the state, the language also spread. Whatever was spoken by its neighbors, whether completely different languages or simply different dialects of the same Chinhan language, Sŏrabŏl must have provided the linguistic center of gravity around which the kingdom came into being.

Moreover, once Silla had defeated its rivals and consolidated control over the peninsula, much the same process must have continued, this time on a still larger scale. The first state to fall under Silla control was Kaya, the small kingdom lying on Silla’s southwest flank. This annexation took place in the sixth century. Then, in the seventh century, Silla overwhelmed first Paekche, then, finally, Koguryŏ in the year 668. This series of conquests brought the entire Korean peninsula under Silla control, and for the first time made it possible to begin the process of linguistic unification. For this reason, the establishment of Unified Silla was the most important event in the formation of Korean.

How long it took Silla to effect a linguistic unification is not known, nor is it possible to know in any meaningful way the details of that process. It would certainly have been likely for local speech patterns to linger long after 668, particularly in places far removed from the capital. It may even be that there
are still substratal traces of Koguryŏ, Paekche, and Kaya – or even of other, historically unnoted languages – to be found in the diverse dialects of contemporary Korean. (That at least is a romantic image of the Korean countryside that continues to resonate in the popular mind today.) Still, what seems beyond question is that the local language of Sŏrabŏl, the speech of an area near what would become the Silla capital of Kyŏngju, was the source out of which flowed the mainstream of the Korean language. Through military conquest and political consolidation, these speech patterns became the lingua franca of the Silla kingdom, then of the entire peninsula.

2.3.6 Relationships between the three languages

The Silla language was the direct ancestor of Middle Korean, and for that reason is most properly called “Old Korean.” Koguryŏan, and especially Paekchean, appear to have borne close relationships to Sillan. As mentioned above, at least thirty Koguryŏ words (perhaps a third of the attested vocabulary) bear a close resemblance to Silla forms. The resemblance of Paekche to Silla is even greater. Nevertheless, the similarities are not great enough to bolster the claim that the three belonged to the same, mutually intelligible language. For linguistic purposes it is better to treat the fragments of the three languages as representing three separate corpora.

How closely these three speech communities were in contact remains a matter of guesswork. Nevertheless, there are clues to be found. Connections can be explored, at least in part, by looking at the various word forms for two cultural concepts. The first is ‘king,’ or political ruler.

2.3.6.1 ‘king’

In this early period, different etymological groups can be detected in titles for high rank. Here is how one group of words was transcribed in phonograms:

<table>
<thead>
<tr>
<th>Koguryŏ</th>
<th>Puyŏ</th>
<th>Paekche (elite)</th>
<th>Silla</th>
</tr>
</thead>
<tbody>
<tr>
<td>皆 'king'</td>
<td>加 [suffix for titles]</td>
<td>瑣 ['king' suffix]</td>
<td>干 ['king' suffix]</td>
</tr>
</tbody>
</table>

Chinese: kai, kai, yai, kan
MK: kay, ka, ha, kan

These forms seem clearly related to each other and possibly comparable to the Middle Mongolian words for ‘monarch,’ qaɣan, qaɣan, qaɣa, as well. The likelihood is strong that these terms for ‘ruler’ represented widespread cultural borrowing.

But other words for the ruler of the state are represented in the records as well. One is the Paekche word transcribed as 鞞吉支, which is believed to have been the term for ‘king’ used by the non-elite. This Paekche title is also
attested in Japan, where it was transcribed in the *Nihon shoki* (720) as *kisi*. And certainly to be noted in this context as well is the Middle Korean word *kuyco* 길 شيء, which was the gloss for the character ‘king’ given in the 1575 Kwangju edition of the *Thousand Character Classic*. These three forms, *kile* 길 شيء (of 鞅吉支), *kisi*, and *kuyco*, were surely all transcriptions of what was etymologically the same lexical item. (The phonogram *ken* 건 鞅 may well have represented a form prefixed to the word for ‘king,’ and which can possibly be compared to Middle Korean *khun* 큰 ‘great.’)

Silla records also show evidence of differing terminology. One term appears as the suffix -干, which compares to the Koguryŏ word *kay 개 皆 ‘king,’ as shown above. This suffix can be seen in *Samguk sagi* and *Samguk yusa* transcriptions of Silla ‘king’ such as 居西干 and 麻立千. But the same texts also transcribe ‘king’ in various other ways, including 尼師今 and 尼叱今. Here, the form -今٢ compares to the second syllable of the Middle Korean word for ‘king,’ *nimkum* 님검, which itself is a compound of the word *nim* 님 ‘ruler.’ It is likely that the Old Japanese word *kimi* ‘prince, lord’ is a borrowing of the Silla term.

2.3.6.2 ‘city’

The fortified city is another concept for which words varied. As we have seen, a word for ‘city’ (*城*) transcribed 忽 [Chinese *xwət*, MK *hwol* 호], appeared in numerous Koguryŏ place names. It was phonetically similar to another form 濟 [Chinese *kəwluə*, MK *kwulwu* 구루] appearing in a certain place name, which a note in the *Wei zhi* “Description of the Eastern Barbarians” explains was the Koguryŏ word for ‘fortified city.’ These two transcriptions are close enough to suppose that they represented variants of the same word. And the two-syllable transcription in the *Wei zhi* may well have represented the older of the two forms.

The Paekche word for ‘fortified city’ was not the same; it was transcribed 己 [Chinese *ki’*, MK *ki* 기]. And the Silla form was yet again different. In the seventh-century poem “Song of the Comet” (as recorded in the 1285 text *Samguk yusa*), the Silla word was written in a way indicating that the form was ancestral to Middle Korean *cas* 갓.

The variation in the terms for ‘city’ during the Three Kingdoms period may well be indications of the early history of fortification in that part of the world. Note that in Japan two words for ‘fortification, fort’ found in Old Japanese (eighth century), *ki* and *sasi*, strikingly paralleled the Paekche and Silla forms. These words related to military construction were clearly borrowed into the islands from the Korean peninsula.

٢ The reading given here is the reconstructed Early Middle Chinese form in Pulleyblank (1991).
We have suggested in the previous chapter that Silla’s unification of the Korean peninsula was the most important event in the formation of Korean. That political and cultural consolidation led to the unification of the Korean language, passing through Middle Korean and Early Modern Korean directly to the language spoken on the peninsula today. The languages of the Three Kingdoms period, that is, those spoken in Koguryō, Paekche, and Silla – and probably in Kaya, too – appear from the fragmentary evidence we have to have been closely related. Paekchean and Sillan seem to have been particularly close. Yet, however close or distant those languages may have been, the mainstream of what later became the Korean language today flowed directly out of the wellspring that was Silla.

And yet that stage of the language is documented in only the most rudimentary way. We know virtually nothing about the speech of the tiny city-state Sŏrabŏl. Nor can we establish what changes the language underwent during the approximately one thousand years between the founding of the Silla state and its overthrow by the Koryŏ in 935. The documentary record provides little more than a vague outline of what that long first stage of Korean was like.

Silla was the last of the three kingdoms to take up Chinese writing. Curiously, the seventh-century history Liang shù describes Silla as “without writing; one carves wood to convey messages,” but that characterization surely represented little more than a fantasy passed along by Chinese ethnographers. Silla scribes most certainly wrote in Chinese. They had probably learned from Koguryŏ and Paekche ways of transcribing the local language using Chinese characters, but it is also likely that those methods were developed further once they reached Silla. In any event, wherever and however such transcriptional methods were devised, most of the textual evidence that has survived bears witness to their use in Silla.

What about Korean literature during the Old Korean period, then? Most prose writing was apparently done in Classical Chinese, the language that served for ordinary affairs of state and commerce. But for the Korean language, about all that is known about literary activity during that time is that poetic expression took the form of what are known today as hyangga.
鄉歌, or 'local songs.' These short poems are the oldest examples of completely Korean writing and literary composition that still exist.

We can imagine that Silla had a long tradition of poetic recitation in the local language, and certainly, during the Unified Silla period from the seventh to the tenth century, the hyangga verse form flourished. In the ninth-century Queen Chinsŏng commanded that one of the highest-ranking Silla ministers, Wihong, together with the monk Taegu, put together a collection of hyangga verse, and in 888 they produced the compilation known as Samdaemok 三代目. Although that text has been lost, the royal attention given to the project shows the importance the verse form had at that time.

As a more broadly considered fact about the Korean language, we know that Chinese influence on its vocabulary grew during the Old Korean period. This increase in sinification was, in a way, formalized by the state in 503, when the official word for ‘king’ was changed from native terms to the usual Chinese title wang 王. Chinese linguistic and cultural influence can also be surmised from naming practices. As mentioned in the previous chapter, King Kyŏngdŏk gave an order in 757 that all place names in the state be standardized by giving them a two-character Chinese-style reading. Not long after that, personal names too became sinified.

3.1 Sources

There are six sources of information about Sillan.

3.1.1 The transcription of names

The Samguk sagi and the Samguk yusa contain the names of numerous Silla people, places, and bureaucratic offices, and these entries are supplemented by Chinese and Japanese historical sources. Linguistic information can be obtained from these names by using the method described in the previous chapter for Koguryo names. That is, if a Silla name was transcribed in two ways, one using phonograms to represent the sounds and the other using Chinese characters to represent the meaning, its component morphemes can be deciphered, at least in an approximate way.

This is how linguists use the Silla place names in chapter 34 of the Samguk sagi. However, decipherment in these cases is complicated by the fact that chapter 34 ordinarily does not contain two different transcriptions of the same name, but rather one transcription of the original, native Silla name together with the name that replaced it under the reforms initiated by King Kyŏngdŏk. The reformed name was of course not the same thing as a different transcription of the old name; it was a new name that may or may not have been determined by what the place had been called before. For this reason, the Silla
place names must be treated with great caution. Moreover, even in cases
where the reformed name appears to have followed the old name, it still
remains to be determined whether the old name was written in phonograms or
with characters approximating the meaning. This determination often
involves informed guesswork. Take this transcription, for example:

密城郡本 推火郡

Here the old Silla name of this county, 推火, appears to have been transcribed
with characters used not for their sounds, but for their associated meanings.
Why? Because, first of all, we know that the characters in the reformed name
were read Chinese-style, which means that 密 was pronounced something
like mil (pronounced Middle Korean-style). Now, the Middle Korean word
mil- ‘push’ bears a phonetic resemblance to that pronunciation. Then we see
that the 推 in the old name means ‘push.’ Our best guess, then, is that ‘push’
was the intended transcription.

In contrast is this transcription:

永同郡本 吉同郡

The interpretation of this county name works in exactly the opposite way. Here the character 吉 in the old name was a phonogram approximating native
sounds. It was read something like kil, and the word it represented meant
‘long.’ That at least is what students of the text surmise because, first of all,
the corresponding character in the reformed name, 永, has that meaning of
‘long,’ and, second, the Middle Korean word for ‘long’ is kil-.

Nevertheless, despite the difficulties with interpretation, such transcriptions
can provide useful etymological clues. Consider this Samguk sagi entry:

星山郡本 一利郡 一云里山郡

If the reformed county name 星山 represented a sinification of ‘Star Mountain,’
then it is likely that the characters 一利 in the old name were phonograms;
and if that was so, the transcription may have been used to represent the
sounds of an old Silla word for ‘star.’ That word could then in turn be linked
to the etymology of the modern dialect word ili-nay ‘Milky Way’ (still used in
South Ch’ungch’ŏng and elsewhere). The modern word, otherwise etymo-
logically opaque, can thus be analyzed as ‘star stream.’

The texts of the Samguk sagi and the Samguk yusa themselves contain
etymologies that have long piqued the interest of Koreanists. The most
famous example is found in the first volume of the Samguk sagi, where the
surname of the founder of Silla, “Pak,” is explained as follows: “The people of
[Silla] call a gourd pak (朴), and because the original, great egg [out of
which the founder was born] resembled a gourd, he was given the name Pak.”
“The man was born from an egg. The egg was like a gourd. The native people
call a gourd *pak*; therefore, he was named Pak.” What to make of such legends is a question that will probably never be resolved.

### 3.1.2 *Idu*

*Idu* was the most common traditional method of writing Korean using Chinese characters. It was employed as far back as the Three Kingdoms period, and it continued to be used well into the nineteenth century. The purpose of an *idu* transcription was to alter a Chinese-language text so that it could be read in Korean; and, unlike other methods of writing Korean, *idu* continued to be used as a scribal technique for centuries after the invention of the alphabet. It is the best-known and historically most enduring of the pre-alphabetic transcriptional methods.

In translating a Chinese-language text into Korean using *idu*, the scribe first changed the words of the text around into Korean syntactic order. Then he added Korean particles and verb endings and other function words using Chinese characters either phonetically or semantically to represent those function words. As can well be imagined, *idu* is complex and difficult to decipher.

*Idu* also developed and changed over the centuries, reaching its more or less fully developed form around the eleventh century. The following example, taken from after the Old Korean period, shows how the system came to be used. It is an *idu* transcription from the 1395 Korean translation of the Ming legal code. First, the original Chinese text:

```
雖 犯 七 出 有 三 不 去
tho’ violate 7 go-out exist 3 not go
‘Even though there may be a violation of the “Seven Reasons for Divorcing a Wife,” there are three (reasons) not to go.’
```

Next, the Korean translation (the underlined elements are transcribed function words; Middle Korean readings for them are given in italics underneath):

```
必 于 七 出 乙 犯 爲 去 乃 三 不 去 有 去 乙
pilok ul hokena iskenul
tho’ 7 go-out OBJ violate do, but 3 not go exist
```

It can be seen that the original text has been altered in the *idu* translation to fit Korean syntactic order. Then the Chinese word for ‘although’ is replaced by a Korean equivalent, *必于* (*pilok*); the Korean object marker *乙* (*ul*) is added after the grammatical object; and the verbs are given Korean inflectional endings. At the same time, however, the original Chinese elements 七出 and 三不去 are left unchanged, in their original order. As is apparent in this example, *idu* involved mixing Chinese words and phrases together with Korean words and Koreanized syntax and morphology.
The Imsin sŏgi sŏk is a small inscribed stone 34 cm. in length that was discovered in the city of Kyŏngju in 1934. Though the inscription is written in Chinese characters, the syntax is almost pure Korean.
This complex system did not emerge fully developed of course. In its incipient forms, the *idu* method was used during the Three Kingdoms period, as is shown by the manipulations of Chinese text found in a few Koguryō transcriptions. One such transcription comes from an engraving on an ancient silver box; though excavated from a Silla tomb, the box is believed to have been crafted in Koguryō in 451. The engraving contains the phrase 三月中 ‘in the third month,’ where 中 is thought to have represented a locative particle. Such early examples amount to little more than subtle alterations of Classical Chinese syntax, however.

It was in Silla that *idu* seems to have been developed into a functional transcription method. A Silla stele called the *Imsin sōgi sōk* 壬申誓記石 ʻThe Imsin Vow Stoneʼ bears an extended inscription dating from 552 (or 612):

壬申年六月十六日 二人幷誓記 天前誓 今自三年以後 忠道執持 過失無誓 若此事失 天大罪得誓 若國不安大亂世 可容行誓之 又別先辛末年七月廿二日大誓 詩尚書禮傳倫德誓三年

ʻOn the sixteenth day of the sixth month in the year *imsin*, we two together do solemnly swear and record. We swear before heaven. We swear that from now and thereafter for three years to hold to the way of faithfulness without fail. We swear that should we fail in this matter, we will receive severe punishment from heaven. Even should the land not be at peace and the world in great discord, we will without fail go the way of faithfulness, we swear this. Further, we have in addition already taken a great vow on the twenty-second day of the seventh month in the year *simmī*. We swear to learn in turn [the classical Chinese texts] *Shi jing, Shang shu, Li zhi*, and *Zuo zhuan* for three years.ʻ

In this text, all the Chinese characters are used in their original, Chinese meanings, but the order in which they are put together is completely different from that of Classical Chinese. The syntax is almost purely Korean. For example, instead of the Chinese construction 自今 ‘from now,’ the order of the two characters is reversed, Korean-style (今自), so that ‘from’ becomes used as a postposition. Sentences end in verbs. Still, function words used in later *idu* texts do not appear here; only the symbol 之 is used to express the ending form of a verb.

Further development of the *idu* form can be seen on a stele erected on South Mountain in Kyŏngju in 591:

辛亥年二月廿日 二人幷誓記 天前誓 今自三年以後 忠道執持 退失無誓 若此事失 天大罪得誓 若國不安大亂世 可容行誓之 事為聞教 今誓事之

Although this particular inscription has not yet been fully deciphered, it bears the hallmarks of a transition between the stages of *idu* represented by the two texts cited above. The use of 之 is like that of the earlier text, but the employment of other characters such as 節, 以, 教, 令, and 爲 resembles usage in later transcriptional practice. For example, 節 was read *tiwuy* `time, occasion’ in later texts; and 以 was used for the instrumental particle. It is also possible that 者 was being used here to represent the Korean topic marker.
An even more developed form of *idu* was inscribed on the famous three-story stone pagodas erected at Karhang Temple 葛項寺 in 758:

二塔天寶十七年戊戌中立之
姊姊妹三人業以成在之
妹者零妙寺言寂法師在姊
姊者照文皇太后君女在姊
妹者敬信太王女在也

The use of the characters 中, 以, and 者 to represent Korean elements are features seen in earlier texts, but here we see new constructions that, on the one hand, look like later *idu*, but on the other hand reveal information about Korean syntax of the time. For example, the 在 appearing in the sequences 在之, 在妙, and 在也 was read in later texts as *kyen* 견 and was an adnominal functioning like the contemporary copular form *i.n* 인. Now, the stem of that verb, *kye*- 견-, appeared in Middle Korean only as a bound form together with the honorific morpheme -*si*- as the honorific verb of existence and location, *kyesi*- 견시-. (today, in the contemporary language, the form is *kyeysi*- 게시다). But here, in this Silla text from 758, we see what must have been the same verb appearing with a variety of endings. The 在 this text was an early phonogram used to represent a verb ending. It is probably to be equated to the morpheme often written as 齊 in *idu* texts. The character 妹, read *mye* in *idu*, represented the Middle Korean (and contemporary) verb ending -*mye* 며 ‘does/says/is and...’

The word *idu* itself has an obscure etymology. We do not know what the system was called by the people of Silla or any of the other states during the Three Kingdoms period. The most common written form of the word, 吏讀, first appears much later, after the alphabet was invented in fact, in the anti-alphabet memorial by Ch’oe Malli in 1444. But all of the various transcriptions of the word begin with the morpheme 吏 ‘clerk,’ and there is little reason to doubt that the system was most commonly used by government clerks, at least in the Koryŏ period and thereafter. Yet, the transcription of the second syllable is so varied, the word *idu* might possibly have a native origin. In any event, all of the countless passages in Korean historical writings that attribute the invention of *idu* to the famous seventh-century scholar Sŏl Ch’ong amount to no more than legend. That would have been impossible, for, as we have seen, there are textual examples of writing with *idu* that preceded him.

Characters added to an *idu*-type text to annotate the purely Korean grammatical elements eventually came to be known as *kugyŏl*, or, roughly, ‘oral embellishments.’ Though the conventions of *kugyŏl* usage evidently originated in the Old Korean period, what is known about the symbols and their development comes largely from later, Koryŏ-period texts.
3.1.3 Hyangch’al

Another, much fuller method Sillans used to write their language is called hyangch’al. It is the written form in which the poetry known as hyangga appears.

Only twenty-five hyangga have been preserved. Moreover, those that do exist are of somewhat mixed provenance. The oldest are the fourteen verses found in the thirteenth-century Samguk yusa ‘Vestiges of the Three Kingdoms,’ one of which is said to have been composed by a Paekche prince. The other thirteen were written by Silla poets between 600 and 879, for the most part during the eighth century. The remaining eleven poems are found in the biography of the scholar Kyunyŏ 均如傳. Although these latter verses were actually composed in the early Koryŏ period between 963 and 967, they are also considered Silla poetry.

Hyangch’al was thus used for literary writing that was purely Korean, and the hyangga poems transcribed in it are native in both form and spirit. Yet, though different in intent, hyangch’al writing did not involve the use of any new transcriptional methods. The scribes who wrote in it employed the same transcription strategies already seen in the representation of place names, as well as in both idu and kugyŏl annotations.

The methods can also be compared to those seen in the transcriptions of Japanese poems found in the eighth-century collection Man’yōshū. But while the readings of most Man’yōshū poems were explicated in the ninth century by priests using kana transcriptions, interpretation of the hyangga remains a monumental task. We quite honestly do not know what some hyangga mean, much less what they sounded like.

And so, interpretation of the poems is an extremely difficult task. Much of the content remains undeciphered, the sounds of the poems mysterious. Still, let us look briefly at the “Song of Ch’ŏyong”處容歌, one of the poems found in chapter 2 of the Samguk yusa. This verse is a representative hyangga, but fortunately, unlike most other hyangga, Koryŏ-period versions of the poem are found in the fifteenth-century music collections Akhak kwebŏm and Akchang kasa. These latter-day poems give clues as to what the Silla version of the “Song of Ch’ŏyong” meant and how it might have been read. For this reason, much of what is known about the hyangga begins with this particular poem. The readings on the right are reconstructed interpretations of the eighth-century forms romanized to conform with Yale-Romanization conventions for Middle Korean. The translation of the poem that follows is by David McCann:

東京明日月良 TWONG-KYENG polki to.l ala
夜入伊遊行如可 pam tuli nwolnitaka
入良沙寢矣見昆 tulesa caloy pwokwon
The song of Ch’o˘yong

In the bright moon of the capital
I enjoyed the night until late
When I came back and looked in my bed
There were four legs in it.
Two are mine.
But the other two – whose are they?
Once upon a time what was mine;
What shall be done, now these are taken?

The word hyangch’al 鄕札 means ‘local letters,’ and that is just what it was of course. But the word itself comes to us from a text written later, in the early Koryô period. No Silla text ever mentions that native writing system – we do not even know if Sillans had a special term for it. But just as the word hyangga, meaning ‘local songs,’ is what Koreans today call the ancient Silla poems, hyangch’al is what they call the native system used to write those poems. Both words are imbued with the romance and pride Koreans take in their ancient literary accomplishments.

3.1.4 Chinese transcriptions

Chinese ethnographers on the peninsula noted a few of the Sillan words they heard. The Liang shu description of Silla, for example, contains this passage: “In the local language they call a fortification 建牟羅. Their own villages they call 啄評; ones of outsiders are called 邑勒. In Chinese, these are called ‘counties’ (郡) and ‘prefectures’ (縣) . . . The hats of their officials they call 遺子禮; jackets are 尉解; trousers are 柯半; boots are 洗.” The Silla word for ‘jacket’ noted here was surely cognate with sixteenth-century wuthuy 우תי ‘clothes’ (a word still found in North Korean dialects). The attested word for ‘trousers’ was the earlier form of fifteenth-century kowoy 고외 < *koWoy (this word was transcribed in the twelfth-century Jilín lèishi as 珂背); and ‘boots’ is to be identified with fifteenth-century sin 신 ‘shoes.’ But the other transcriptions have so far proved uninterpretable.

3.1.5 Loanwords into Old Japanese

The ancient Japanese borrowed words from the Korean peninsula, but it is not always possible to know from which language the word was taken. Thus, to
use a loanword as information about Sillan, the word needs to be attested in other sources as well. Still, given this condition, the Japanese word can still be invaluable, because it can provide phonological information difficult to adduce from transcriptions written only with Chinese characters.

The Old Japanese word *kimi* 'prince, lord,' for example, is believed to have been borrowed from the Silla word for ‘king,’ a form transcribed with the phonogram [Chinese *kim*]. (That Silla word was cognate with the second-syllable morpheme of Middle Korean *nimkum* 니금 ‘king.’) Another Japanese word believed to be such a loan is *sasi* ‘fortified city,’ from the Silla word ancestral to Middle Korean *cas* 갑 ‘fortress.’ Old Japanese *kopori* ‘county’ has been identified with the Silla word for ‘county,’ which later became Middle Korean *koWol* 고을 ‘district, village’ – which in turn became Contemporary Korean *kwoul* 고을 ‘district.’

### 3.1.6 Chinese character readings

Since the traditional readings of Chinese characters in Korea date from the Old Korean period, they reveal some information about the state of the Korean phonological system at that time.

### 3.2 Transcription methods

How Sillans transcribed their language is not well understood. To be sure, the principles are known, but most of the essential details are missing. The scarcity of writing samples is of course the first, most obvious problem. But even for those texts that do exist, it can sometimes be difficult to tell whether a particular transcription character was meant to represent the meaning of a Silla word, or its sounds. And in those cases where we do know for sure that the Chinese character was meant to represent sounds, the crudeness and imprecision of the transcription renders it difficult, if not impossible, to reconstruct the phonemic shape with any accuracy. Nevertheless, some facts are clear.

#### 3.2.1 Phonograms

In Sillan writing most phonograms represented a syllable. This principle can be seen in the transcriptions of both names and *hyangga*. A very tentative and partial listing of those syllabic transcriptions is given below (phonological shapes are, at best, approximations):

- a 阿 (我); na 乃, 奈, 那; ra/la 羅; ta 多
- i 伊 (異); ki 己; mi 美; ri/li 理, 里
- ko 古; mo 毛; no 奴; ro/lo 老; so 所; to 刀, 道
For certain syllables, however, the transcription of names differed from that used for writing hyangga:

<table>
<thead>
<tr>
<th>Names</th>
<th>Hyangga</th>
</tr>
</thead>
<tbody>
<tr>
<td>ka:</td>
<td>加</td>
</tr>
<tr>
<td>ke:</td>
<td>居</td>
</tr>
</tbody>
</table>

The phonograms in these lists were used not only in Silla, but in Koguryŏ and Paekche as well. That fact is not particularly surprising, since the three peninsular kingdoms were presumably in fairly close cultural contact. Faced with similar transcriptional problems, they probably learned ways of solving them from each other.

But the Silla phonograms also corresponded closely to Japanese man’yōgana (in this case, the so-called “ongana” 音仮名 symbols, as most famously found in the poetry of the eighth-century anthology Man’yōshū. That coincidence is of great historical and cultural significance, for it could hardly be accidental. How should it be explained? We might at first be tempted to ask the question: who taught whom? Since peninsular peoples began using Chinese characters much earlier than people in the Japanese islands, and since many of the teachers of Chinese in ancient Japan (the so-called “on-hakase” 音博士) were from the Korean peninsula, it stands to reason that techniques of transcription were learned from peninsular teachers, and that is almost surely what happened. But the question itself betrays a modernist bias. In the eighth century and earlier, that part of the world was not so clearly divided by national boundaries into Korea and Japan as it is today. In those early days culture diffused across the sea to Japan the way it did on the peninsula itself and in adjacent parts of the Asian mainland. Perhaps this diffusion represented an ecumenical sharing of knowledge through Buddhist channels; perhaps it resulted from entrepreneurial teachers teaching transcription techniques wherever they found paying students. In any case, however it happened, what is most striking is that the non-Chinese peoples on the eastern fringes of Asia made almost identical use of Chinese characters to transcribe the sounds of their own languages. The man’yōgana are not uniquely Japanese.

3.2.2 Non-syllabic phonograms

Certain phonograms were not read as syllables by Sillans, however. These characters were used instead to indicate the sounds of a syllable-final consonant, and they usually occurred together with a meaning indicator, a gloss
(a *hun* reading) for the word. For example, in the transcription 夜音 (Middle Korean *pam* 밤 ‘night’), the character 夜 indicated to the reader that the meaning of the word was ‘night,’ and 音 (read *um*) showed that the word ended in -*m*, thus cueing the reader in to exactly what Korean word was meant. Here are a few of those characters used as indicators of syllable-final consonants: -*m* 音; -*r/l* 尸; -*s* 戰; -*c* 次.

### 3.2.3 Problematic phonograms

Certain phonograms were particularly problematic. The following six are noteworthy:

良 This phonogram was (approximately) read either as -*ra/l* or, it is often assumed, as -*a/e*. The first, -*ra*, conforms to the familiar reading of *man’yō-gana* usage. But when the phonogram was used to transcribe the infinitive ending of Old Korean verbs, linguists have assumed the character was read -*a/e* instead.¹ If true, the reading becomes difficult to explain.

膸 This character, a simplified form of 彌, was used to transcribe the coordinate conjunctive ending of verbs that meant ‘and also,’ and is thought to have been read -*mye*. That reading would indicate an especially old pronunciation of the character. For by the eighth century at least (if not slightly earlier), the prestige reading in China is believed to have changed from something like *myie* to *myi*.

渕 The Old Korean coordinate ending ‘and then’ was consistently transcribed with this character. Both Chinese reading (*khjian*) and traditional Korean reading (*kyen* 견) confirm that the phonogram should be read with a final nasal. But the Middle Korean form of the morpheme, -*kwo* 고, not only shows no sign of the nasal, but the vowel looks substantially different as well.

The other three of the six graphs have even more questionable readings. In fact, it has not been definitively established that the three were phonograms at all. (These will be discussed in more detail in the section on Old Korean phonology, below.)

户 Of all the transcriptional symbols used by Sillans, this particular character is probably the most enigmatic. If the character was a phonogram, then it must have represented a sibilant (the prestige Chinese reading was ʂi, and the traditional Korean reading is also *si*). But an *s*-like pronunciation does not appear to have been its phonetic value. Instead, the graph was used in Silla transcriptions as an annotation for a terminal consonant, which in later attestations was the liquid /l/. Take, for example, 日户 ‘day’ (where 日 is a *hun* reading indicating the meaning of the Korean word). Here 户 represents

¹ Because those were the phonological shapes of the Middle Korean infinitive.
the syllable-final consonant, thought to have been *l or *r in Silla times. (Since nal 날 is the Middle Korean form of the word, something like that consonant is assumed.) Similarly, Sillans used the characters 道尺 to write what later became Middle Korean kil 路 ‘road.’ It is not clear how this transcriptional usage can be adequately explained. Did the Silla consonant have a significantly different phonological shape (as some have proposed)? Or was the character being used in a way that we just do not understand?

This is another character Sillans used to write a syllable-final consonant, assumed in this case to have been *s. But the readings of the character (Chinese ʂhit; traditional Korean cul 출) would be more in keeping with the transcription of an affricate than of a fricative.

In idu tradition this character is read ki 기, and thus that is what it is thought to have represented in hyangch’al transcriptions as well. Both the Chinese reading of the character (tʂi) and the traditional Korean reading (ci 치), too, point toward a pronunciation with an affricate initial consonant rather than a velar. But it seems highly unlikely that an earlier affricate would have changed to a velar before a high front vowel.

(One suggested possibility is that these latter three characters, 道, 叱, and 只, were in fact the simplified forms of some other, as yet unidentified Chinese characters. But if so, what might those characters have been? As yet, the idea is not supported by much evidence.)

3.2.4 Word glosses

Many of the Chinese characters in a Sillan text were used for their meanings instead of their sounds. Each individual character was then read as a native word, using what was called a saegim 새김 ‘tag translation’ or hun 훈 ‘explanation’ reading. (It is no accident that this method of reading characters worked the way kun readings do in Japan; both word and method originally crossed over to the islands from the peninsula.) Using a Chinese character for its meaning like this was not a nonce transcriptional device; the character was by convention associated with the native word it represented.

Hun associations linking Chinese characters with native words remained part of Korean tradition in Middle Korean, and they are still used today. A hun reading is the way a Chinese character was, and is, identified. In the sixteenth-century character dictionary Hunmong chahoe, entries take the form (for example): 朝 achom tywo 아종도 `[the character] tywo [that is to be equated with] “morning.”’ A modern Chinese–Korean dictionary uses the same method of character identification. When Korean people meet, they often use the same formula to tell each other what Chinese characters their
names are written with. In other words, hun readings served, and still serve, as tag translations of the characters.

Because of this unbroken tradition, Middle Korean hun readings were, for the most part, to be identified with readings used in Silla times. That is certainly true, for example, of the characters 夜, 日, and 金, identified in Middle Korean texts as pam 밤 ‘night,’ nal 날 ‘day,’ and swoy 쇼 ‘metal.’ Occurrences of the characters in Silla texts were unmistakably meant to be read as the reflexes of these Middle Korean words. For some characters, however, the hun readings changed. For example, the character 谷 ‘valley’ was consistently identified with kwol 골 ‘valley’ in all Middle Korean texts. But in Silla transcriptions 谷 was read instead as (the earlier form of) another word for ‘valley,’ sil 실. Why would a reading change? There were undoubtedly many complex reasons. But in this case, although the word sil ‘valley’ is found widely even today in local place names, it is attested in Middle Korean only occurring together with nay 내 ‘stream’ in the compound sinay 시내 ‘brook, valley stream.’ Perhaps by Middle Korean times sil was no longer an independent word, making it less transparent as a hun reading.

3.2.5 Mixed transcriptions

The transcription of Silla names was done with phonograms, hun readings, or a mixture of the two. All three methods are seen in the Samguk sagi. But in hyangch’al, the mixed style of transcription came to dominate over the other two. There, for the most part, nouns and verb stems were written with characters used for their meanings and read as Korean words, while native particles and verb endings were transcribed with phonograms. In this respect at least, the transcription system resembles nothing so much as the senmyō-gaki 宣命書き writing style used for imperial edicts and Shinto prayers in Japan. Given the striking resemblance, the style’s use in Japan appears to be another case of cultural diffusion. On the other hand, no direct evidence of such a process still exists, and given that scribes in both realms had the same writing principles to work with, it is certainly not inconceivable that the two systems just happened to emerge around the same time but independently.

3.3 Phonology

Silla linguistic materials are far too poor in both quantity and quality to establish the phonological system of the language with any certainty. The best that can be done is to recover some of the characteristics of the system through philological detective work combined with internal reconstruction from Middle Korean.
3.3.1 Consonants

3.3.1.1 Obstruents

The Silla obstruent system is believed to have consisted of the plain consonants \( p, t, c, k \) and the aspirated consonants \( ph, th, ch, kh \). The Proto-Altaic system with which Korean is often compared has been reconstructed with an opposition between voiced and voiceless obstruents, and for that reason Korean scholars have theorized that the two Altaic series merged in Korean, after which the aspirated series developed.

If it is true that Korean once had a voiced–voiceless distinction (regardless of whether Korean is considered Altaic or not), the details of the process have yet to be worked out. Still, we might imagine that as a result of the merger, voiceless obstruents only appeared word-initially and in obstruent clusters, and voiced obstruents medially, in voiced environments. (That, after all, is the phonetic realization of plain consonants today.)

However, there is also the lingering question of whether the Old Korean reflexes of Middle Korean voiced fricatives were voiced. In the fifteenth century, the two consonants /z/ and /W/ occurred in medial voiced positions, and, certainly, many of their occurrences were demonstrably the result of lenition from /s/ and /p/. Thus, [\*s] > [z], and [\*b] > [β]. But not all occurrences of /z/ and /W/ can be easily explained that way. There is unmistakable evidence that [z] at least existed in the twelfth century. The question is whether any of these consonants were distinctively voiced in the Old Korean period. As yet, no philological evidence has been found to resolve the issue. Nor has internal evidence been conclusive, either. Some comparativists have tried to relate the consonants to voiced obstruents in Altaic, but such speculations remain highly tentative.

3.3.1.2 Aspirates

The development of the aspirates is somewhat better understood. In Middle Korean, as at all later stages of Korean, plain obstruents combined medially with \( h \) (e.g., -ph-, -hp-) to produce aspirated obstruents morphophonemically; and there is little reason to think the rule did not also apply in Old Korean. In word-initial position, aspirated consonants were far fewer in number in Middle Korean than plain consonants. In the case of the velar aspirate \( kh \), that is especially so: there were only a few words attested in Middle Korean that began with this consonant: khwong \( \text{朝鲜} \) ‘soybeans,’ khi \( \text{朝鲜} \) ‘a winnow,’ khoy \( \text{朝鲜} \) ‘dig,’ and khu \( \text{朝鲜} \) ‘big.’

Some Middle Korean aspirates historically developed from clusters following the syncope of an interceding vowel. Thus khu- \( \text{朝鲜} \) ‘big’ is from \*huku-. (See the evidence from Early Middle Korean, Chapter 4, below.) Some aspirates arose in other ways. After the Middle Korean period, for
example, kwoh 괴 ‘nose’ changed to kho 코, and kalh 갈 ‘knife’ to khal 칼, the plain initials of both nouns assimilating the word-final h as aspiration. The development of the Korean aspirated series was a process that continued for many centuries.

This does not mean aspirated consonants did not exist at all in Old Korean, however; some clearly did. One unmistakable indication of their existence, at least in nascent form, can be seen in the Korean readings of Chinese characters. Around the seventh or eighth century, when Koreans adopted their traditional readings of Chinese characters, the prestige variety of Chinese had a three-way distinction in its obstruents. The distinction between voiced and voiceless in Chinese was not maintained in Korean; both consonant series were, and are, treated as plain consonants in Korean. But the aspirated series in Chinese had a more complex outcome. The dental aspirates were consistently reflected (as expected) as the Korean aspirates th ᄄ and ch ᄅ. But labial and velar aspirates were different; they did not usually give rise to aspirated consonants in Korean. In fact, the Chinese velar aspirate *kʰ was quite regularly reflected as unaspirated /k/. All told, there are only a few examples of Korean character readings with velar aspirates: 卍 khwoay 쪽; 伓 khwoay 쪽; 驅 khwoay 쪽; and 偉 khwoay 쪽. These facts point to the conclusion that the Korean aspirate series were not fully established at the time the readings were borrowed. The dental aspirates arose first; then the labials; and, finally, the velars.

Nevertheless, transcriptions of Silla place names confirm the existence of aspirates in medial position. The Silla word for ‘uncultivated, fallow’ (glossed as 荒 or 菜) was transcribed in the phonogrammic form 居柒, the Middle Korean reading of which is kechul 거츨. The reflex of the Middle Korean verb ich- 임- ‘dislike, hate’ was written 異次 or 伊處, and both of these second characters are read in Korean with the aspirated initial ch-. Hyangga transcriptions provide further confirmation. In the Pohyŏn sibwŏn ka 普賢十願歌 ‘Song of the Ten Great Vows of the Lord of Truth,’ the form 佛體 ‘body of the Buddha’ corresponds to the Middle Korean word pwuthye 부터 ‘Buddha.’ There is a consistency about the transcription of these dental aspirates that could not be accidental.

3.3.1.3 Terminal consonants

One of the most consistent tendencies in the history of the Korean sound system has been toward an implosive articulation of syllable-final consonants. In Old Korean the reflexes of /t/, /s/, and /c/ maintained their distinctiveness in final position, but not /ch/ from /c/. In Middle Korean, /s, c, ch/ no longer remained distinct before a pause, but were, rather, pronounced there as the sibilant [s]. And today, in Contemporary Korean, the consonants /t, s, c, ch/ are all pronounced as an unreleased [t] in final position.
As noted earlier, the phonogram 叱 is believed to have represented a syllable-final *s. In the hyangga “Song of the Presentation of Flowers” 献花歌, the form that would become Middle Korean kes.게 ‘breaking off’ was transcribed 折叱可, and in the “Song of the Comet” 彗星歌, cas 城 ‘fortified city’ was written 城叱. These transcriptions were unmistakably aimed at representing *s. Moreover, the supposition that the graph reflected a sibilant is supported by the fact that it was also used to represent what in later periods was the genitive particle *s. (This same transcription convention was maintained in the Early Middle Korean period; see Chapter 4, below.)

As mentioned above, the affricates *c and *ch were apparently not distinct in terminal position. The phonogram 次, for example, could be used to represent either. In “Song of Praise for the [Hwarang] Knight Kip’a” 贊耆婆郎歌, (the reflex of Middle Korean) kac 갃 ‘branch’ was written 枝次; as noted above, the verb ich-억 ‘dislike, hate’ was written 異次.

Old Korean reflexes of syllable-final liquids merit particularly close examination, because in Middle Korean, syllable-final /l/ appears to have been the result of an earlier consonant merger. One such indication is that Middle Korean verb stems ending in -l- were at least four times greater in number than stems ending in any other consonant. Second, these stems were differentiated by tone in ways that other stems were not: in Middle Korean texts, (monosyllabic) l-stems were either marked with a low, high, or long rising tone, or they belonged to a class of stems whose pitch alternated between low and rising. This kind of distribution across the tone classes was true of no other stem-final consonant. There were other morphophonemic oddities as well.

Old Korean transcription conventions seem to confirm the existence of two kinds of liquids. For in writings from that earlier period, the phonograms 乙 and 乙 were both used to transcribe consonants corresponding to later occurrences of /l/, and since the two graphs were not interchangeable, they must have reflected a distinction. In particular, note that 乙 was used, among other things, to transcribe the prospective modifier of verb forms (in Middle Korean, -o/ulq). For example, in a hyangga written at the end of the seventh century, “Song in Admiration of the [Hwarang] Knight Chukchi” 慕竹旨郎歌, there is the line 慕理乙 心未 行乎乙 道乙 ‘the road that [my] longing heart follows.’ Here, in addition to transcribing a terminal liquid in the reflex of kil 길 ‘road’ (道乙), the line contains two verb forms, kulilq 그릴 ‘longing’ (慕理乙) and nyewolq 女울 ‘coming’ (行乎乙). In Middle Korean (as in Contemporary Korean) the prospective modifier caused the reinforcement of a following consonant, as is shown by the fact (among others) that it was often written as /l/ followed by a glottal stop (ʔ). (In passing, it might also be noted that the characteristic was, and is, typical of obstruents, but what that fact reveals about the nature of the distinction is not at all clear.)
Altaicists have long maintained that the Korean liquid /l/ represents the merger of an earlier *r versus *l distinction. If that was so, the evidence from Old Korean suggests that the loss of the distinction had at that time not yet taken place. In any event, in the larger Korean historical context such a merger, if and when it took place, could also be seen as part of the overall tendency toward an increase in implosive articulation.

3.3.2 Vowels

Reconstruction of the Old Korean vowel system remains especially tentative. In the absence of better philological materials, facts about its structure are mainly those that can be surmised from the system reconstructed for Early Middle Korean. Supplementary information is provided by Old Korean phonograms, but such vague phonetic hints are little more than suggestive.

Based at least on this kind of detective work, the Old Korean vowels do not appear to have been substantially different from those of Early Middle Korean. Evidence for change in either the inventory of vowels or their phonological values is thin. It has sometimes been suggested that Middle Korean /i/ represented an historical merger of a front vowel *i and an earlier back vowel *ɨ, because the Middle Korean vowel /i/ was a neutral vowel in the vowel harmony system. But that supposition is not well supported by the Old Korean philological evidence. The thirteenth-century rounded vowel *ə (corresponding to Late Middle Korean [ʌ] /o/) is thought to have been even more rounded in Old Korean. But the evidence from phonograms is, again, inconclusive. Late Middle Korean kalol 가 hol ‘split’ was transcribed 腳鳥, but Chinese readings for 鳥 have been reconstructed only as *ə or *ɔ, and never as a fully rounded [o]. The reflex of thirteenth-century *ə (Late Middle Korean [i] /u/ ㅡ) was almost never represented in Old Korean. Thirteenth-century *u and *ü (= fifteenth-century [o] /wo/ ㅗ and [u] /wu/ ㅜ) were transcribed with the phonograms 鳥 and 于; Chinese readings confirm the rounding of these two vowels, but not much more. The Middle Korean vowel *e appears to have been slightly lower in Old Korean, something like *ɨ perhaps, at least judging from its transcription in phonograms. The Middle Korean vowel a seems to have been *a in Old Korean as well. All in all, these were not big changes.

What may have been a significant phonological change, however, was the loss of some vowel occurrences. As we will see in the discussion of Early Middle Korean, syncope was the process through which some aspirates and, after the twelfth century, most initial consonant clusters were created. To what extent such processes were under way before then, in Old Korean, is still not altogether clear.
3.3.2.1 Vowel harmony
The status of vowel harmony in Old Korean is also not clear. There is no evidence of it in the extant materials; nothing in the documents shows us whether it then existed, or, if it did, what form it took. The hyangch’al transcriptions reflect no such alternations.

Nevertheless, it cannot be concluded so simply that Old Korean had no such system. The quality of the transcriptional materials is much too poor to reach that conclusion. Moreover, most internal evidence points toward just the opposite. For as we move back in time from Contemporary Korean to Early Modern Korean to Middle Korean, we find that the system of vowel harmony becomes more and more regular, with fewer and fewer exceptions to its rules. It seems reasonable that the tendency would continue to increase as we move back farther in time. One more fact can be added to the evidence. In reconstructing the vowel values before the vowel shift (to be discussed in Chapter 4, on Early Middle Korean), we arrive at a system that fits more naturally with the kind of palatal harmony commonly found in other languages.

3.3.2.2 Complex vocalic elements
Middle Korean had a vocalic system in which /w/ and /y/ appeared as onglides. But in addition to the attested occurrences of /y/ before /a, e, wo, wu/, there is morphophonemic evidence in Middle Korean of a broader distribution of /y/ as an onglide before /o, u/, and even as an offglide of /i/, *iy. (See Chapter 5, on Late Middle Korean.) The extent of Old Korean evidence for a broader distribution of onglides and offglides is a subject that has still not been explored.

3.4 Sino-Korean
Chinese writing was introduced very early into the Korean peninsula, and it came into widespread use during the Three Kingdoms period. As this foreign writing system was being assimilated and naturalized, the Korean readings of the characters were probably patterned, at least in the very early stages, on the pronunciations that Koreans heard from Chinese visitors. But beyond that initial assumption, there is little that can now be said about the incipient parts of the process. Silla was the last of the kingdoms to adopt Chinese writing, and so Silla scribes most likely were also influenced by reading and writing practices already in use in Koguryŏ and Paekche. But that is a guess, because no records have been preserved to confirm the roles as intermediaries possibly played by other peoples.

What we do know is that the Korean readings of Chinese characters have been preserved in an unbroken tradition from Unified Silla, through Middle Korean, down to the readings used in Contemporary Korean today. After the
eighth or ninth century there was no massive reintroduction of new readings or new rules based upon a later variety of Chinese. For the most part, the changes that character readings have undergone have been those operative within the Korean language more generally.

This Sinitic vocabulary, known in the West as “Sino-Korean” and in Korea as “Eastern Sounds” tongŭm 東音, is not a simple collection of loanwords, however. Rather, Sino-Korean forms are patterned as closely as possible on the interlocking relationships found in traditional Chinese rime tables and dictionaries. In other words, in adopting Sino-Korean, Koreans borrowed the system, not individual words. It is true of course that the Korean lexicon contains numerous early Chinese loanwords, but that vocabulary is separate from the lexical body represented by Sino-Korean. Those early Chinese loanwords are not associated now in any way with Chinese characters, and only scholars know that they are Chinese in origin.

The sounds associated with the traditional character readings of Sino-Korean reflect the structural features of Late Middle Chinese. For that reason, they are generally believed to have been patterned more or less on the prestige Chang’an readings of Tang-period Chinese. Of course, there are a few irregularities that may have stemmed from other sources.

One curious mystery about Sino-Korean is its treatment of the -t coda of “entering tone” syllables. Whenever Chinese syllables ended in -t, the corresponding Korean syllables consistently end in -l instead. For example, in the transcription of place names the character 勿, which was read mut in Chinese, was used to represent the word that became mul 물 ‘water’ in Middle Korean; in the hyangga, the character 贝 (Chinese qi) represented the accusative particle -oful. These consonants were not borrowed as *t. How do we know they were not? Because if they had been, native syllables ending in -t would also have changed to -l, and they did not. Many sinologists believe that fairly early on in the history of the Chinese language, the ending consonants in entering-tone syllables weakened in some northern Chinese dialects, and in those dialects -t weakened to [r]. The Sino-Korean readings seem to support that hypothesis. They indicate that it was probably from one of those leniting dialects that Koreans borrowed their readings of the characters.

In those same northern Chinese dialects, velar stops are also thought to have lenited: -k > *[g] > [*ɣ]. The Sino-Korean readings of these entering-tone syllables preserve the original -k, but some very early Korean borrowings from Chinese reflect a weakening of the consonant instead. In Middle Korean, these loanwords (which were considered native and thus never written with Chinese characters) were transcribed with a syllable-final /h/: alongside Sino-Korean sywok 속 ‘common, unrefined,’ there was the Middle Korean word sywoh 숏 ‘ordinary person’; Sino-Korean zywok 수 ‘mattress’ was paralleled by “native” zywoh 수 ‘mat, futon’; tyek笛笛 ‘flute’ by tyeh笛笛
Sino-Korean readings provide another vantage point from which to look for information about the phonological structure of Old Korean. Some Chinese structural features could not be accommodated into the Korean system. Chinese voiced initials, for example, were completely merged with voiceless initials; both were interpreted as Korean plain consonants. Chinese diphthongs and triphthongs were simplified. Knowing how the Chinese system was reflected in Korean, seeing how Chinese sounds were accommodated and how they were altered, provides information not always easily obtained through other methods.

3.5 Grammar

The only sources of information on the grammatical features of Old Korean are hyangch’al and idu transcriptions.

Idu transcriptions can be useful in the study of Korean morphology, but dating the information found there can be problematic. Most of the surviving idu documents were written during the Chosŏn period, and although these latter-day texts preserve transcription conventions harking back to Silla times, the archaic forms they contain are mixed together indiscriminately with what appear to be forms dating from later periods. The data in hyangch’al transcriptions are more reliable in this respect, but far fewer such texts have survived, and their decipherment is still imperfect. Research into the grammar of Old Korean is reliant on both types of materials, each of which presents the researcher with its own special problems.

3.5.1 Nouns and noun phrases

3.5.1.1 Particles

The following particles are attested in Old Korean:

<table>
<thead>
<tr>
<th>Case particles</th>
<th>Old Korean transcription</th>
<th>Middle Korean form</th>
</tr>
</thead>
<tbody>
<tr>
<td>nominative</td>
<td>伊, 是</td>
<td>i</td>
</tr>
<tr>
<td>genitive</td>
<td>矣, 衣</td>
<td>-oy/uy</td>
</tr>
<tr>
<td></td>
<td>叱</td>
<td>-s</td>
</tr>
<tr>
<td>locative</td>
<td>良</td>
<td>ay/ey</td>
</tr>
<tr>
<td></td>
<td>中</td>
<td>kuy</td>
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<td>akuy</td>
</tr>
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<td>accusative</td>
<td>乙</td>
<td>-ol/ul</td>
</tr>
<tr>
<td></td>
<td>舀</td>
<td>[h]ol/ul</td>
</tr>
<tr>
<td>instrumental</td>
<td>留</td>
<td>-(o/u)wo</td>
</tr>
</tbody>
</table>

Focus particles

| topic marker  | 隱, 焉                 | (n)on/un           |
| ‘too, also, even’ | 置                | two                |

Old Korean
The Old Korean accusative particle was usually transcribed with the character 乙. But it was also sometimes written with the character 阮, a transcription believed to have represented *hul, the initial *h of which belonged morphemically to the preceding noun. If true, the form would parallel the Middle Korean transcription hul  הייתי.

In Middle Korean texts, the shape of the accusative particle was notably varied. It appeared in a number of different forms, as -l, ol/ul, or lol/lul (-ㄹ, 온/울, 온/울), depending on the phonological environment and the rules of vowel harmony. The question that naturally arises is, did the particle in Old Korean have similar variation, or did it have a uniform, unvarying shape? This question bears most critically on the issue of vowel harmony, and whether it existed at that stage of the language. The imprecise nature of Chinese character phonograms makes it extremely difficult to find a resolution to this question.

3.5.1.2 Pronouns

Hyangga and idu texts contain a pronominal self reference transcribed as 矣 or 矣徒. According to idu texts from the late Chosŏn period, these forms were read as uy 의 and uynoy 의 ǐ. The second syllable of the latter form, noy ǐ, was apparently the reflex of the pseudo-pluralizing suffix -nay -푭 [‘the group, all of . . .’ that is seen in such Middle Korean forms as emanim-nay 어마님내 ‘mothers.’ (The form of the suffix in Contemporary Korean today is -ney.) Comparativists have speculated that 矣 (uy 의) was a reflex of what has been reconstructed in Altaic as the first-person pronoun *bi.

The first-person singular pronoun itself was transcribed with the character 吾, the Chinese graph for the word ‘I.’ The plural ‘we’ was transcribed 吾里, and it seems certain that this transcription represented the reflex of Middle Korean wuli 우리 ‘we.’

The second-person pronoun was transcribed simply with the character 汝, a Chinese graph for ‘you.’

3.5.2 Conjugations

One thing that is readily apparent from Old Korean transcriptions is that the language already had a complex inflectional system back then. From a typological point of view, Korean has remained unchanged in that respect throughout its recorded history.

The final endings attested in Old Korean can be classified into three types: (1) modifiers and nominalizers; (2) conjunctive endings; and (3) finite verb endings.

Just as is true today, verbs that modified nouns or noun phrases took special modifier endings. And the most common modifier endings in Old Korean were, as expected, reflexes of Middle Korean -(o/u)n (된 /된) and -(o/u)lq (된 /된).
However, what is especially noteworthy is that these same forms could serve as nouns. In other words, modifier endings were also nominalizers.

The Old Korean reflex of Middle Korean -(o)u/lq (:`~/~/`) was transcribed with the character «. As mentioned above, the hyangga “Song in Admiration of the Knight Chukchi” contains the line 慕理心未行乎道 «‘the road that [my] longing heart follows.’ The two verb forms in this line, kulilq 그릴 ‘longing’ (慕理 «) and nyewolq 너울 ‘going’ (行乎 «) are marked with this ending.

The Old Korean reflex of Middle Korean -(o)un (~/~/) was annotated with the character 隠. In the phrase 去隠春 ‘the spring that passed’ (also from “Song in Admiration of the Knight Chukchi”) the modifier ending is attached directly to (the reflex of) the verb stem ka- 가- ‘go.’

### 3.5.2.1 Conjunctive endings

The conjunctive endings attested in Old Korean are, for the most part, reflexes of endings still used in Korean today.

The conjunctive ending transcribed with this character was a reflex of Middle Korean -la (~-라), an auxiliary indicating ‘desire.’ (This ending became the purposive -(u)le in Contemporary Korean.) The ending is seen, for example, in such passages as this one from the hyangga “P’ungyo” 風謠 (‘Local Air’): 功徳修叱如良未來如 ‘coming in order to beg for food.’

As mentioned above, this character represented the coordinate conjunctive ending of verbs that meant ‘and also.’ The phonological form of the ending is believed to have been -*mye, and it was formed from the nominalizer -m and the particle ye ‘or, and, and the like.’ Here is an example from the eighth-century hyangga “Song of Prayer to the Bodhisattva of a Thousand Hands” 禱千手觀音歌: 膝肹古召遣 ‘dropping [to] his knees, and . . .’

This transcription represents the reflex of Middle Korean transferative -taka -다가, ‘does and then . . .,’ which was a compound of the assertive -ta and particle -ka (which marked the complement of a change of state). It is found, for example, in this line from the “Song of Cho˘yong”: 夜入伊遊行如可 ‘I enjoyed the night until late, and then . . .’

As mentioned earlier, the phonological interpretation of this phonogram is problematic. However, the graph was clearly used to transcribe an Old Korean conjunctive ending marking coordination of clauses, ‘and . . .,’ and so the ending it represented is usually treated as identical to the ending transcribed with the phonogram 古. But if that identification is correct, the nasal coda that seems to be indicated by the reading of the character 遣 remains unexplained. An example of the ending, 遣 ‘embrace and . . .,’ is found in the hyangga “Ballad of the Yam [gathering] Youths” 薯童謠.
3.6 Vocabulary

The paucity of Old Korean materials makes it impossible to present a comprehensive overview of the vocabulary. However, one thing that can be said about the Old Korean lexicon is that most of the words that are attested correspond to reflexes found in the vocabulary of Middle Korean.

Old Korean numerals illustrate these points – as well as the abstruse ways in which words were transcribed. First, three different Silla numerals are attested in the Hyangga: ‘one,’ ‘two,’ and ‘thousand.’ (Other numerals also appear, but the transcriptions contain no indications of their phonological shapes.) Each of the three is written with the Chinese character for the...
numeral plus a phonogram transcribing the ending sound. ‘One’ is attested in the following passage from the “Song of Sacrifice for a Departed Younger Sister” 祭亡妹歌: 一等隱枝良出古 (*hoton kacay nakwo ᵀʰᵒⁿ ᵀʰᵒⁿ 가제 나고 ‘grew from one branch, and . . . ’). The word is found as well in the “Song of Prayer to the Bodhisattva of a Thousand Hands” 禱千手觀音歌: 一等沙 (*hoton sa ᵀʰᵒⁿ ᵀʰᵒⁿ ‘it is one!’). In both examples, ‘one’ is written 一等. The first syllable of the word was transcribed with the Chinese character for ‘one,’ which of course reveals nothing but the meaning. But since the second-syllable phonogram 等 was read *tung, the word apparently corresponded to Early Middle Korean *hoton *ʰ튼 ‘one.’ The stem of that form was *hot ᵀʰᵒᵗ. Note in this connection that the Late Middle Korean compound holo ᵀʰᵒˡ ‘one day’ is from *holol, which in turn goes back to *hotol, a form composed of *hot ‘one’ and *ol ‘day.’ (In isolation, the Middle Korean word for ‘day’ was of course il 일, but the shape it took in numbers had a minimal vowel: ithul 이틀 ‘two days,’ saol 사올 ‘three days,’ naol 나올 ‘four days,’ yelhul 열흘 ‘ten days.’) The numeral ‘two’ is attested in the “Song of Ch’olyong” 處容歌 as 二脥, and in the “Song of Prayer to the Bodhisattva of a Thousand Hands” 禱千手觀音歌 as 二尸. Neither of these transcriptions gives a clear indication of the phonological shape of the word. But since the character 脥 is ordinarily thought to have represented the syllable *hul, and since 尸 was used to represent *l or *r in Silla times, the Old Korean word for ‘two’ appears to match up with Early Middle Korean *twupul/*twuWul ‘two.’ The numeral ‘thousand’ was written 千隱 in the “Song of Prayer to the Bodhisattva of a Thousand Hands” 禱千手觀音歌. That word corresponded to Middle Korean cumun 익문 ‘thousand.’ Nevertheless, there were certainly Old Korean words that left no obvious traces in that latter stage of the language. One case in point is the word for ‘spring, well.’ In the Samguk sagi and the Samguk yusa the birthplace of the founder of Silla is recorded in two ways, as 蘿井 and as 奈乙. These two transcriptions indicate that the Silla word 井 ‘spring, well’ sounded like 乙 *ul 을. Such a word is nowhere to be found in the Middle Korean corpus. The word for ‘youth’ is another example. In chapter 4 of the Samguk yusa one particular name was transcribed in two ways, as 𢈝福 and as 𢈝童. And for this second transcription the text notes that 𢈝童 “is elsewhere also written 𢈝卜; moreover, both 巴 and 伏 also are [ways of] expressing ‘youth.’” In other words, the Old Korean word for ‘youth’ was transcribed as 禰, 巴, or 伏, phonograms which indicate a reading probably something like *pwok 복. Nothing like that form meaning ‘youth’ is seen in Middle Korean.

Or take the word for ‘community, settlement’ found in many place names. That word was usually written with the phonogram 伐 (*pel 벌), but
sometimes with the *kungana*-type transcription 火 (that is, the native Korean reading of the character ‘fire’ was borrowed to write the sound *pul* 拐). That Silla word matches up with a similar word for ‘community’ (written 夫里) in Paekche place names. But the only traces of the word in Middle Korean are found in frozen compounds. One of those traces is the word *koWol* 꺽 몰 ‘town, district, village’ (> *kowol* 꺽 몰 – and, later, > (san-)*kwol* ‘(mountain) district’ in Contemporary Korean). Another is the word *syеШul* 서 볼 ‘capital’ – in other words, ‘Seoul.’ (In this connection it should be noted that the Korean word for ‘capital’ had existed from a time even before the founding of Silla – that is, if we believe the narrative about it found in the *Samguk yusa*. For in that work we are told (in chapter 1) that Silla began as the statelet Sŏrabŏl, or Sŏbŏl 徐伐 (syepel), and that the name of that state was also the local word for ‘capital.’ A variety of other names for the Silla state are found in both the *Samguk sagi* and the *Samguk yusa*, and almost all of them appear to be variants of that same word.)

The *Samguk sagi* and the *Samguk yusa* texts themselves offer a number of etymologies and explanations for Silla words, both works citing the Unified Silla scholar Kim Taemun as the source of the information. Here are three:

(1) “[A word written] 次次雄 is called 慈充 by many. Kim Taemun says that this means ‘shaman’ in local speech. Because the shaman serves demons and gods and also conducts sacrifices, the people fear and look up to him, and as a result call that respected elder 慈充 (*cochywung* 쓼충)” (*Samguk sagi*, chapter 1). The word being described compares to Middle Korean *susung* 스승 ‘master, shaman.’

(2) “Kim Taemun says that 尼師今 (*nisokum* 니소금) is a regional word and means ‘tooth’” (*Samguk sagi*, chapter 1). The same word is also written 尼叱今 (*niskum* 니금) and 齒叱今 (*tooth*-skum 齒사금) in the *Samguk yusa*. Clearly related is the Middle Korean word *ni* 니 ‘tooth.’

(3) “Kim Taemun says that 麻立 (*malip* 마립) means ‘post’ in regional speech” (*Samguk yusa*, chapter 1). The reflex of this word in Middle Korean was *malh* 맛 ‘post.’

What is doubly interesting, and curious, about these particular words is that they were used in the titles for Silla kings, from the founder to the twenty-second sovereign in the line. However, during the time of that twenty-second sovereign, the Chinese system of posthumous titles was adopted, and the native titles were all corrected to the Chinese title *wang* 王 ‘king.’ That was in the year 503.

That particular word change was part and parcel of the general sinification of the Korean vocabulary during the Silla period, a process that would continue for another millennium and a half, up until modern times. The fact that today place names, personal names, and official titles are virtually all derived from Chinese character readings had its origins in that process.
The influence of Chinese civilization on Korean vocabulary was enormous and long-lasting. Chinese institutions and learning penetrated deeply into Korean society and language, and Sinitic vocabulary became an intimate part of Korean life as a result. But, as we have already pointed out, the words and morphemes of this vocabulary were not ordinary loanwords. New terms were not borrowed by listening to how Chinese pronounced the words and then imitating those pronunciations. Rather, Koreans borrowed literary systems. Koreans patterned their readings of the characters not on what they heard, but on the relational systems found in Chinese rime tables and dictionaries. Sino-Korean vocabulary was, in other words, not borrowed from Chinese speakers, but rather created out of literary texts. The resulting Sinitic vocabulary formed a distinctive, largely recognizable strain of the Korean lexicon, something that remained true of the Korean language down to the present day. It is still like that. Korean words and morphemes of Chinese origin dominate literary usages, while native Korean words are overwhelmingly the words of everyday life.

That does not mean Koreans did not borrow words from Chinese. They did. There are many Chinese loans in Korean, and some have been there for thousands of years. But these words do not look like Sino-Korean and are not thought of as Chinese; they are considered native and never written with Chinese characters. Most (at least those loanwords we know of) are associated with cultural contact, terms brought in along with the objects they describe. They include the words we have already mentioned above. But, in addition, pwut 분 ‘writing brush’ and mek 먹 ‘inkstone’ are two other, well-known examples of early Chinese loans. The phonological shapes of both fall outside the rules laid down for Sino-Korean. The -t coda of pwut 분 ‘writing brush’ is particularly noticeable, since the Sino-Korean rendering of an original Chinese -t is always -l.
The stage of the language known as “Middle Korean” lasted from the tenth century until the end of the sixteenth century. It began with the establishment of the Koryŏ dynasty in AD 918, when the new government moved the capital from Kyŏngju, in the southeast, to Kaegyŏng (later to be renamed Kaesoòng) in the middle of the peninsula. It nominally ended when the Japanese invaded Korea in 1592, and the resulting chaos disrupted the written record of the language.

Middle Korean can be most conveniently divided into two parts: Early Middle Korean and Late Middle Korean. The language of the Koryŏ period (918~1392) is considered to be Early Middle Korean, while the language of the first two hundred years of the Chosŏn period is taken to be Late Middle Korean. That division is not made to mark sweeping changes in the language. On the contrary, political and social developments point more toward linguistic stability than significant change between the Koryŏ and the Chosŏn. At the end of the Koryŏ, in 1392, the founders of the new, Chosŏn dynasty chose a place not very far away to build their capital. Unlike the move from Kyŏngju to Kaesoòng, the move from Kaesoòng to Seoul (then called Hanyang) took place over a relatively short distance and is usually thought to have had a minimal effect on the language. The regional base of the language did not change.

What did fundamentally change was how the language was recorded. Late Middle Korean is attested by a detailed and cohesive body of works in alphabetic script; Early Middle Korean is barely attested at all. Unlike Chosŏn texts, extant Koryŏ documents are relatively rare, and written only in Chinese characters. The Chosŏn-period textual corpus, on the other hand, consists of a large number of books and writings in Hangul. The importance of this change in the writing system can hardly be overstated. While the written records from Koryŏ (and before) give at most broad hints about sounds and structures, the alphabetic writings of the fifteenth and sixteenth centuries show in minute detail what the Korean language was like. In a sense, Early Middle Korean still represents linguistic prehistory, since many, if not most, of the linguistic facts must be reconstructed.
But note that the dividing line between the Early and Late periods is not set precisely at the beginning of alphabetic writing. (Some Chinese phonograms written slightly before that are considered attestations of Late Middle Korean.) The demarcation is set instead at the fourteenth century, because that is when some noteworthy changes are believed to have taken place in the Korean phonological system, particularly in the vowels. These changes and the evidence for them will be discussed presently.

4.1 The formation of Middle Korean

What was Early Middle Korean, the language of the Koryŏ period, like? By moving the capital to the central region, the Koryŏ elite established a new base for the language, away from that of the old Silla capital. The land on which the new capital lay was in the extreme northwestern part of the Silla kingdom, on territory that had once belonged to Koguryŏ. It had been annexed by Silla in the latter part of the seventh century (in 668), and ruled by that southern kingdom for almost three centuries; does that mean the people who lived there spoke Sillan at the time? And if they spoke Sillan, did their dialect retain elements of Koguryŏan?

The answer to both questions is probably yes. Since, as has already been noted, Middle Korean was a direct descendant of Sillan, it stands to reason that the Sillan language would have been spoken in Kaegyŏng in the tenth century, when Middle Korean took shape. The Koguryŏan language must have already been displaced by Sillan when the Koryŏ set up their capital there. That does not mean that Koguryŏan left no traces, though. When speakers give up one language for another, they usually retain features of the old language in the new, and if a community of people who had once spoken Koguryŏan lived in Kaegyŏng, a Koguryŏan substratum may well have existed in the Sillan dialect spoken there. That appears, in fact, to have been the case. Although the philological evidence is fragmentary, it nevertheless suggests that there were Koguryŏan elements at least in Koryŏ vocabulary. For example, the thirteenth-century pharmacological compilation Hyangyak kugıppang contains the entry: 鉛俗云‘那勿 “lead” is called *namol in the vernacular.’ The correspondence here to the Koguryŏan word *namor ‘lead,’ which was reconstructed from the nearly identical phonograms 乃勿, is not likely to have been an accident. Another possible correspondence can be found for the Koguryŏan word for ‘valley,’ which was written with the phonogram 呑, or 頓. The Middle Korean correspondence can be seen in the 1400 Chinese booklet Cháoxiān-guăn yiyŭ (‘A glossary from the Chosŏn Interpreters Institute’), where the Korean word for ‘village’ is transcribed with the phonogram 吠, suggesting that the Koguryŏan word survived into the fifteenth century.
What is particularly noteworthy about these two words, however, is that at some point both disappeared from the Korean vocabulary. Not long after the Chinese booklet was published, in the alphabetic texts of the fifteenth century, the words for ‘lead’ and ‘village’ were nap and mozol. Both of these two latter words are believed to be of Sillan origin. The fact that they replaced the other words even after the Koryŏ central language had become established suggests that the old central language of Silla spoken in the southeast continued to exert an influence. Moreover, the influence of southeastern dialects on the central language was not limited to the Koryŏ period but continued to be important long after that.

4.2 Sources

4.2.1 Phonology

The two principal sources of information about Early Middle Korean phonology are the Chinese booklet Jilín lèishi (known in Korea as the Kyerim yusa), and the pharmacological work, the Hyangyak kugüppang. Some phonological information can also be gleaned from thirteenth-century Mongolian loanwords. Though these loanwords were first written down a few centuries later, they nevertheless provide important clues about the phonetic values and phonological structure of Korean at the time they were borrowed.

The Jilín lèishi 鶴林類事, ‘Assorted matters of Jilín,’ is a Chinese compilation and vocabulary list. The curious name for Korea seen in this title – Jilín, or “Kyerim” in Korean – was an old state name used by the Silla kingdom from AD 65 to 307, which was then picked up and used by imperial China during the Tang dynasty. Since the characters literally mean ‘Chicken Forest,’ it is usually thought to have been a reference to the white cock crowing in a forest that figured prominently in the founding myth of the Silla royal family. (The crowing of the cock had drawn attention to a golden box from which emerged the wondrous boy who became the first of the Kim line of kings.) But the explanation is itself curious. Another explanation might be that the transcriptional characters were phonograms representing a native Korean word. Just what word that might have been is unknown, however.

The Jilín lèishi was compiled over a period of two years, 1103–4, by a secretary of the Song imperial legation in the Koryŏ court named Sün Mù 孫穆. It has long been surmised that Sun Mu’s work was originally made up of three chapters dealing with local customs, system of government, and language, together with a supplement consisting of “texts of imperial decrees, inscriptions, and the like.” However, the original text is not extant today, and all that now exists are excerpts found in two Chinese encyclopedic compilations, the 1726 Qing volume Gùjīn túshū jíchēng (古今圖書集成) and the Ming text Shuō fú (説郛). The Ming edition of the Shuo fu has unfortunately
also been lost; all that remains of it are around thirty of its lexical entries cited in the 1558 Korean text Taedong unbu kunok (大東韻府群玉), as well as later editions of the Shuo fu from 1647 and 1925. The 1925 edition was compiled by using then-extant excerpts of the Ming edition to correct the 1647 copy, and the contents are for the most part identical to the citations found in the Taedong unbu kunok. These various extant excerpts comprise a text consisting of a short introduction, which deals principally with local customs and government, and a section on “regional language” (方言). Fortunately, despite the many problems with the text’s transmission, the section on language seems to preserve much the same form it had in Sun Mu’s original document.

The language section of the Jilín leishi is a simple vocabulary list of something over 350 words and phrases. Each entry takes, for example, the form 天日漢捺 “‘sky’ is called [the Korean word],” with the Korean word or phrase being transliterated using phonograms. These phonograms reflect Chinese readings of the characters from the late Song period, and recovering the sounds of the Korean word from them is a tenuous process. The Chinese readings of the phonograms must first be reconstructed, and then those sounds reconciled with what can be reconstructed by projecting back Korean phonological values known from fifteenth-century Hangul texts. At this remove,
there is much room for guessing and error; still, useful information can nevertheless be recovered.

The *Hyangyak kugūppang* (鄕藥救急方) is a compilation of herbal prescriptions for emergency treatment, and is the oldest Korean medical treatise that has been preserved. It was published in the mid-thirteenth century by the Interim Office of the Tripitika (*Taejang togam 大藏都監*), the Koryŏ agency charged with the production of the Buddhist Pali Canon, the Tripitika Koreana. The first edition of the *Hyangyak kugūppang* has been lost; the only extant copy is a later edition from 1417 in the possession of the Imperial Household Ministry Library in Japan. This book contains brief descriptions of over 180 plant, animal, and mineral ingredients used for medicinal purposes, and in these descriptions, the “local names” of the ingredients are recorded with hun transcriptions, occasionally supplemented with phonograms. Such transcriptions are scattered throughout the three volumes of the work, but the largest number are found in a supplementary list of herbal names.

The phonograms in the *Hyangyak kugūppang* have to be treated differently from those in the *Jtlin lēishi*, because the characters were written by Koreans and thus must represent Korean readings, not Chinese ones. For this reason, the phonograms in the *Hyangyak kugūppang* can be used not only in the reconstruction of the Early Middle Korean phonological system, but also to learn how Koreans read Chinese characters at that time, which in turn can help elucidate readings used in earlier periods, especially in Old Korean. The problem is avoiding circularity in applying these two uses. In any case, the work is also valuable for information it contains about the Korean lexicon.

Besides these two works, there are a few other, minor sources of phonological information. One is the Japanese compilation *Nichū-reki* (二中曆), which contains kana transcriptions of some Korean numerals. This text, a lexical compendium dealing with a variety of subjects, was put together in later years by unknown hands out of two source works (Kaichū goyomi 懷中曆 and Shōchū-reki 掌中曆) believed to have been compiled around the beginning of the twelfth century. That dating means that it coincides chronologically with the *Jtlin lēishi*. The numeral names it gives are as follows: *katana* ‘1,’ *tufuri* ‘2,’ *towi* ‘3,’ *sawi* ‘4,’ *esusu* ‘5,’ *hasusu* ‘6,’ *tarikuni* ‘7,’ *tirikuni* ‘8,’ *etari* ‘9,’ *etu* ‘10.’ The first two numerals match up reasonably well with the *Jtlin lēishi* transcriptions (河屯 [*xǐa-tūn*] ‘1’ and 途孛 [*tūa-piut*] ‘2’), but the rest are almost completely different. There appears to have been considerable confusion in how those other numerals were transcribed. ‘Three’ seems to have been switched with ‘4,’ ‘5’ with ‘6,’ and ‘8’ and ‘9’ might possibly have been ‘7’ and ‘8.’ For the most part, these data are disappointing.

Some songs from the Koryŏ period are found in the fifteenth-century collections *Akhak kwebŏm* (樂學軌範) and *Akchang kasa* (樂章歌詞), and
these provide a few clues. Since these vernacular songs were first written down in the Late Middle Korean period, most traces of Early Middle Korean have been lost. Nevertheless, a smattering can be found here and there—for example, in the song “Tongdong” (動動), where the word for ‘stream’ is nali 나리. Since the songs sometimes show this kind of archaic quality, they can be thought of as Early Middle Korean compositions, but for the purpose of linguistic reconstruction they can only be used with caution.

Despite the fact that it is written in Classical Chinese, the Koryŏ-sa (‘History of Koryŏ’) constitutes a potential source of linguistic information. In this 1454 official history of the dynasty are to be found a wide variety of personal and place names and bureaucratic titles, some of which provide provocative clues about the structure of Korean at the time. Moreover, not to be overlooked is the fact that this history contains numerous Mongolian loanwords. Another work that contains some Korean words is the Xuānhé fēngshǐ Gāoli tūjìng (宣和奉使高麗圖經) of 1124, a description of Koryŏ sights and sounds written by Xu Jing when he was posted there as part of a Song Chinese legation. In Xu Jing’s work, the (Late) Middle Korean word syem ‘island’ is transliterated in numerous places with the character苫 [*siam]; his text also offers the explanation that something “smaller than an island and yet having grass and trees is called a ‘苫.’” In volume 36 of the same work can be found the statement that “the Koryŏ vernacular for the spines of the hedgehog is ‘苫箑’ [*kʰu-ɕiam].” Here, ‘苫箑’ [*kʰu-ɕiam] corresponds to the kwoswom 고솜 of Late Middle Korean kwoswomtwoth 고솜돌 ‘hedgehog,’ suggesting that kwoswom was the original name of the animal, to which twoth ‘pig’ was added as a suffix. As supporting evidence for this idea, note that the Hyangyak kugūppang contains the explanation: “the hide of the hedgehog is popularly called ‘苫箑猪.’” The character 猪 ‘pig’ was not used here as a phonogram; it was meant, rather, to be understood as a semantic gloss.

The contact between Koryŏ and Yuan China left some Mongolian traces in the Korean language. However, except for names of Koryŏ governmental offices, loanwords from Mongolian were limited to terms related to horses, falconry, and the military. The majority of these loanwords were first put into writing after the fifteenth century, and the most reliable transcriptions are those written in Hangul in the sixteenth century, in the 1517 Pŏnyŏk Pak T’ongsa and the 1527 Hunmong chahoe. Information can also be gleaned from the phonogram transcriptions found in the Ŭnggolbang (鷹鶟方) and other writings. (The Ŭnggolbang itself purports to be a book from the Koryŏ period, but the oldest edition now extant dates from 1444; a handwritten copy of that latter text is in the possession of the Imperial Household Ministry Library in Japan.) Mongolian loanwords in Korean are not especially numerous, but it is still possible to derive information from them about the phonological systems of both languages at the time the words were borrowed.
4.2.2 Kugyŏl and kakp’il

Vocabulary lists are not the only linguistic records from the Koryŏ period, however. There also exist some materials that give information about grammatical structure. In 1973, a Buddhist sutra from the Koryŏ period, the Kuyok inwang kyŏng, was found to contain faint handwritten annotations, and since that time, especially during the 1990s, such annotations were found in other texts. These interlinear annotations, written in simplified Chinese characters known as kugyŏl, had been added to serve as guides to the interpretation of the texts by showing how the Chinese syntax could be altered and read as Korean. Virtually all of the kugyŏl texts discovered thus far date from the Koryŏ. Most such kugyŏl markings had previously escaped notice because they were deliberately unobtrusive and ordinarily nearly invisible in photocopies.

Kugyŏl were also called t’o. Though both terms were written in Chinese characters, they were apparently both native words. Kugyŏl (kwukyel) is the modern Sino-Korean reading of 口訣, characters chosen to gloss the native word ipkyec ‘oral embellishment’; the etymology of t’o is obscure, but the textual meaning, which survives in the modern language, seems to have been ‘grammatical particle.’ The word kugyŏl is preferred today as the term for these textual intercalations.

To understand how kugyŏl worked, let us look at how such markings might have been used if the early Koreans were to annotate a sentence from the English-language canon (the meanings of the hypothetical kugyŏl are indicated below the line):

In the beginning ey God i created the heaven and the earth hasyessta.

Note that if the inserted elements are taken away, what remains is completely English, without the remotest trace of Korean. This example is roughly analogous to how kugyŏl were used to annotate Chinese texts. Now let us look at an actual example of kugyŏl taken from the Tongmong sŏnsüp (童蒙先習), a primer of Chinese used in traditional Korea. The kugyŏl in this example are underlined (in the translation, the parenthetic words are meant to suggest the functions of the kugyŏl in the text):

天 地 之 間 萬 物 之 中 唯 人 伊 最 貴 爲 尼 所 貴 乎 人 者 隱 以 其 有 五 倫 也 羅
ey i honi nun ḷa at SUBJ. does, and so . . . TOPIC is

‘In the multitude of the myriad things midst heaven and earth (at that place), Man (he) is the most noble (and so): what is noble in man (it) is his possession of the Five Human Relationships (it is).’
If the kugyŏl are removed, the sentence is standard Classical Chinese. In other words, these markings were unobtrusive supplements to the Chinese text, and the information they provide about Korean is limited. Still, just as was the case with hyangch’al (see above, Chapter 3), some kugyŏl characters were phonograms and others were meaning indicators with hun readings.

One important feature of kugyŏl is that many of the symbols could be abbreviated. For example, the kugyŏl used in the text cited above often appeared as ᄧ (>({ }), ᄨ (伊), ᄩ (爲), ᄪ (尼), ᄤ (隠), and ᄬ (羅). Here is how the text would appear with those abbreviated kugyŏl:

天地之間萬物之中 fırsat人最貴所貴乎人者因其有五倫也。

These abbreviated kugyŏl were normally brushed into the printed text later by hand, most likely by a Buddhist monk or priest or the book’s owner, as a kind of private punctuation to help in understanding the text.

Simplified kugyŏl look like Japanese katakana. Some of the resemblances are superficial; Kugyŏl ᄨ (ho-), for example, resembles katakana ソ (so); ᄪ (ni) looks like ヒ (hi < fi); etc. But many other symbols are identical in form and value. For example, among the kugyŏl in the example given above, ᄨ, which was abbreviated from 伊, represents the syllable i; there is also ᄧ (ta) from 多, ᄩ (ka) from 加, ᄬ (ya) from 也, etc. These are the same as their Japanese equivalents. We do not know just what the historical connections were between these two transcription systems. The origins of kugyŏl have still not been accurately dated or documented. But many in Japan as well as Korea believe that the beginnings of katakana and the orthographic principles they represent, derive at least in part from earlier practices on the Korean peninsula.

In the year 2000, a second kind of textual marking system was discovered. This system was what is known as kakp’il, or stylus, annotations. This particular system consisted of tiny depressions made with a stylus in the paper – dots and/or angled lines – the interpretation of which depended upon where they were placed relative to the characters they were intended to annotate. The marks are even more unobtrusive than the kugyŏl described above. Dots look as if they might have been made with the tip of an awl, and except for their regularity – either perfectly round and at most a millimeter in diameter, or forming a straight, angled line – they are difficult to distinguish from flaws in the paper.

Stylus annotations had been known for some time in Japan (where they were known as kakuhitsu 角筆), because there are records mentioning them, and some of the actual stylus implements have survived. (In at least one case a distinguished priest had died while in the act of annotating a text, and, out of respect for the priest, his stylus had been left at the location in the text where he had left it.) Since discovering that stylus annotations are also found in Korea, both Japanese and Korean scholars have been involved in a flurry of activity documenting and deciphering the marks.
By their nature, kugyŏl and kakp’i’il reveal little about Korean phonology, but they do give information about the use of particles and other grammatical markers. Through philological analysis, these recent textual discoveries may yet reveal new and unsuspected information about the structure of earlier Korean.

4.3 The transcription of Korean

As has been mentioned, the transcriptional systems of the two principal sources differ greatly from each other. The transcriptional characters of the Jilin leishi are all phonograms based upon Chinese sounds. The transcriptional characters in the Hyangyak kugüppang, on the other hand, reflect a different, native tradition of indicating readings.

The Jilin leishi use of characters is completely unrelated to the native Korean transcriptional system. Apparently, Koreans played no role in the compilation of this work. The author was Chinese, the book was intended to be read by Chinese, and the characters served their purpose only if they succeeded in eliciting pronunciations resembling those of the transcribed Korean words. That was what the phonograms were intended to do. There was quite naturally no point in using transcriptional characters chosen for the meanings associated with them. However, these characters were not completely disassociated from meaning. One example is the transcription 刀子曰割 ‘knife is called [*kat].’ The transcribed word corresponds to Late Middle Korean kal, and the phonogram clearly represents sound values close to those the Korean word had. But since the transcriptional character meant ‘cut,’ it also stayed within the general semantic range of ‘knife.’ Similarly, in the lexical entry 傘曰聚笠 (‘umbrella’ is called [*tsfiya-lip’]), the sounds of the phonograms closely resemble sywulwup, but, in addition, the second character means ‘rain hat.’ In 水曰没 (‘water’ is called [*mut’]), the phonogram represents the sounds of mul ‘water,’ but the character is also associated with the meaning ‘sink.’ This kind of double duty for transcriptional characters is usual in Chinese transcriptions.

A feature of the Jilin leishi transcriptions deserving special attention is the treatment of syllables with a -p, -t, or -k coda. These transcriptions have curious patternings. First of all, representing a velar stop, the transcription 蚤曰批勒 (‘flea’ is called [*phi-lək’]) shows a coda that matched that of fifteenth-century pyelwuk벼룩 ‘flea.’ That velar correspondence looks perfect. But in the transcription 射曰活索 (‘shoot an arrow’ is called [*xfuats-ak’]), which represented hwal_swo 활소-, there was no velar consonant at all in the Korean form. Next, consider transcriptions with a dental stop -t, such as 火曰字 (‘fire’ is called [*pfiut’]) for pul 불, and 馬曰未 (‘horse’ is called [*muat’]) for mol 물. Here, the Chinese *t represented what was attested three
centuries later as /l/. But Chinese *t represented other Korean consonants as well: -th, -c, -t, and -s. For instance: 猪曰 ("pig" is called [*tiut’]) for toth 들; 花曰骨 ("flower" is called [*kut’]) for kwoc 꽃; 笠曰盖音渴 ("rain hat" is called [*kaj]; it sounds like [*khat’]) for kat 逺, 梳曰苾音必 ("comb" is called [*pjiit’]; it sounds like [*pjiit’]) for pis 킷. On the other hand, a *p coda in Chinese consistently represented a -p in Korean: 七曰一急 ("seven" is called [*ʔjit-kip’]) for nilkwup 닐굽; 口曰邑 ("mouth" is called [*ʔip’]) for ip 입.

What are we to make of these patterns?

The Chinese phonograms must have reflected northern Chinese sounds from the twelfth century, but that is a time frame for which it has been especially difficult to reconstruct a Chinese phonological system. The reconstructed values we have given in the examples above were for “Late Middle Chinese,” a stage of the language representing the Chang’an standard of around the seventh or eighth century, when Chinese had syllables closed by distinct -p, -t, or -k codas. But by the time of Old Mandarin in the early fourteenth century, these codas had all weakened to glottal stops, [ʔ]. It stands to reason that in the early twelfth century the Chinese codas could have had weakened values somewhere between those of the two stages, perhaps sounds like *β, *r, and *γ. Phonetic values such as these would help explain the choices of phonograms in the coda transcriptions. (In passing, it might also be noted that in the transcription 尺曰作 ("ruler" is called [*tsaβ’]), the character used to transcribe fifteenth-century cah 장 ‘ruler,’ had an *h as its reconstructed Late Middle Chinese coda.)

In contrast with the use of phonograms in the Jilín lèishi, the transcriptional system of the Hyangyak kugúppang continued the Korean tradition of character usage, in which some characters were used as phonograms, but many others as hun readings, i.e., semantic glosses. These two very different kinds of transcription were also often mixed together in sequences and combinations that may have made sense to people of the time, but they can sometimes be difficult for us to unravel today. For example, the medicinal herb Scutellaria baikalensis (黄芩) was transcribed in two different ways, as 精朽草 or as 所邑朽斤草. The first transcription used characters only for their meanings, and the second mixed sounds with meanings. Both were meant to be read as the native word swop_sekun phul 습서근플, which literally meant ‘inside-rotten grass.’ In the first transcription, the character 精, which means ‘essence,’ glossed swop 습 ‘inside,’ a word rendered in the second transcription phonetically by 所邑 swo-up 소읍. The character 朽 ‘rotten’ appeared in both transcriptions for sekun 서근 ‘id.,’ but in the second transcription, the phonogram 斤 kun 근 was added to suggest the sounds of the second syllable. Finally, both transcriptions were completed using 草 ‘grass’ as a semantic gloss for phul 플 ‘id.’

Yet, even though phonograms and semantic glosses could be mixed together, the character sets used for each of the two types of transcription
were in general carefully distinguished. A few characters, such as 加 and 耳, could be used to gloss either sound or meaning, but such crossovers were rare. In general, the phonogram usage in this pharmacological treatise was quite regular, and formed, in fact, a kind of elementary syllabary. The most commonly used of these syllabic graphs are as follows (the phonological values given are from the fifteenth century):

\[
\begin{align*}
\text{加} &= \text{ka 가, 居} = \text{ke 거, 斤} = \text{kun 근, 只} = \text{ki 기, 古} = \text{kwo 고} \\
\text{乃} &= \text{na 나, 你} = \text{ni 니} \\
\text{多} &= \text{ta 다, 刀/道} = \text{two 도, 豆} = \text{twu 두} \\
\text{羅} &= \text{la 라, 老} = \text{lwo 로, 里} = \text{li 라} \\
\text{朴} &= \text{pak 박, 夫} = \text{pwu 부, 非} = \text{pi 비} \\
\text{沙} &= \text{sa 사, 參} = \text{sam 삼, 所} = \text{swo 소} \\
\text{阿} &= \text{a 아, 於} = \text{e 어, 五} = \text{wo 오, 尤} = \text{wu 우, 隠} = \text{un 운, 伊} = \text{i 이} \\
\text{也} &= \text{ya 야, 余} = \text{ye 여}
\end{align*}
\]

For the most part, this transcription system was the same as the one that had been used in Silla. That fact gives what are perhaps important clues to the older readings of phonograms such as 只 [⁎tsi] = ki 기. Note that, among other similarities, the phonogram 羅 [⁎la] was often written as 灬, a simplification also used in transcriptions from earlier periods. Still more suggestive is the fact that the characters used to transcribe syllable codas were the same as those used in the hyangch’al transcriptional system of the Old Korean period. These transcriptional characters are as follows (the readings are the traditional Korean ones from the fifteenth century):

\[
\begin{align*}
\text{乙} &= \text{ul 을} = -l, \text{音} \text{um 음} = -m, \text{邑} \text{up 응} = -p, \text{叱} \text{cil 질} = -s, \text{次} \text{cha 차} = -c.
\end{align*}
\]

Perhaps most provocative of all, the character 支 [⁎tsi] was used in the transcription ㄝ, which was used to represent the word for ‘yam.’ In Late Middle Korean, the phonological shape of ‘yam’ was mah, so it appears that 支 [⁎tsi] was intended to transcribe -h – or its twelfth-century antecedent. One of the more difficult problems in reading phonograms in hyangch’al transcriptions is determining what phonological value or values were represented by the character 支, and this transcription from the twelfth-century Hyangyak kugypassang sheds what is perhaps revealing light on this problem.

The semantic glosses of the Hyangyak kugypassang are generally divided into two types. In the first type, the meaning associated with the Chinese character is directly related to the meaning of the word being glossed. Thus, the character 冬 ‘winter’ was used to transcribe (the antecedent of) Korean kyezul 겨울 ‘winter’; 犬 ‘dog’ = kahi 가히 ‘id.’; 山 ‘mountain’ = mwoy 곰 ‘id.;’ 水 ‘water’ = mul 水 ‘id.;’ etc.
But in the second type of gloss, the transcriptional character was abstracted from the original meaning. This usage was a complex process in which a semantic link was first established, and then the character was used as a phonogram for sounds similar to those of the first word. For example, the character 置 ‘put, place’ was first linked to the Korean verb twu- 두- ‘put, place’ by meaning; then the character was used to transcribe any syllable pronounced twu. Thus, 置 became a phonogram for twu 두. In a similar way, 火 ‘fire’ was associated with Korean pul 불 ‘fire,’ then it became a way to transcribe any syllable pronounced pul. The character 等 ‘rank, grade’ became first associated with the Korean postnoun toll/tul 틀/들 ‘and others,’ then it became a phonogram for toll/tul 틀/들; 休 ‘rest, cease,’ through a semantic association with Korean mal-말-‘stop (doing),’ became a phonogram for mal. Consider these examples: the transcription 置等只 represented what later became the fifteenth-century word twutuleki 두드러기 ‘rash’; all four characters were phonograms, but the first two were only used as phonograms through their semantic associations. In 楊等柒 (the name of a kind of spurge called, in Late Middle Korean, petul-wos 버들옷 ‘[literally] willow-lacquer’) the first character is a semantic gloss for petul 버들 ‘willow,’ the second a derived phonogram for the syllable tul 들, and the third a semantic gloss for wos 옷 ‘lacquer.’ In 刀古休伊 for (Late Middle Korean) twoskwomali 돗고마리 ‘cocklebur,’ 刀, 古, and 伊 are straightforward phonograms, while 休 is used as a phonogram through a semantic gloss. This transcriptional practice closely parallels Japanese man’yōgana usages known as kungana 訓假名.

Traces of what appear to be this same transcriptional strategy can be seen again and again in the Hyangyak kuguppang. The hints are tantalizing. In the plant names 雛骨木 (skuytyelkalis-pwulhwuy 쇠갈가릿불휘 ‘the root of Komarov’s bugbane, Cimicifuga heracleifolia,’ used in Chinese medicine for the common cold and bowel disorders) and 雛矣毛老邑 (skuy-mwolwop 쇠요모로 ‘pinellia,’ one of the most important herbs in Chinese medicine, used in moxibustion and to stop coughing), the character 雛 ‘pheasant’ appears to be used indirectly, through that semantic gloss, to represent the syllable skuy 쇠 even though the fifteenth-century Korean form of ‘pheasant’ was skweng 쇠. (Notice also the Contemporary Korean word kkathuli ‘hen pheasant.’) How did the association work? Or take this example: in the plant name 虎驚草 (stas-twulhwup 끓둘生产总 ‘spikenard, Aralia cordata’), the character 虎 ‘tiger’ seems to transcribe the syllable sta 쇠. Then there is the even more provocative use of the character 數 ‘number’ to represent (the ancestral form of) ton 돈. For example, the plant name ton-nezam 돈녀삼 (‘Astragalus membranaceus,’ one of the fifty fundamental herbs in Chinese medicine, used to speed healing) was transcribed as either 甘板麻 or 數板麻, where ton 돈 ‘sweet’ is rendered with 甘 ‘id.’ as a semantic gloss, or with 數,
presumably used as a (derived, kungana-like) phonogram. That is pretty strong evidence that Old Korean had a word for ‘number’ that sounded like ton 톤. Note that that Old Korean word, in turn, looks very much like Old Written Mongolian toγan (modern то) ‘number’ and Manchu ton ‘number.’

4.4 Phonology

Just as is the case with Old Korean, what can be stated about the phonological system of Early Middle Korean must necessarily be tentative. Nevertheless, as has already been mentioned, despite the paucity of Early Middle Korean materials, it appears that significant phonological changes took place sometime around the fourteenth century.

4.4.1 Consonants

4.4.1.1 Clusters and aspirates

The profusion of initial clusters found in the fifteenth century is believed to have developed sometime after the twelfth century through the syncope of vowels separating the consonants. The word psol 菽 ‘(uncooked) rice’ was transcribed in the Jilin lēishi with the two phonograms 菽薩 [*p'hui-sat], the first of which began with a labial stop, indicating that the form of the word was then *posol. In the pharmacological work Tongūi pogam (東醫寶鑑 湯液篇), which was compiled at the end of the sixteenth century and published in 1613, the medicinal herb wotwoktwoki ‘arbor monkshood’ was transcribed as wotwok.ptwoki 오독 penc기 (3:19). In the Hyangyak kugūppang, the word was transcribed with phonograms in two ways, as 五得浮得 and 烏得夫得, both of which point toward a reconstruction like *wotwokputuk, with a vowel between the p and the t. Since the Hyangyak kugūppang was compiled in the mid-thirteenth century, the syncope of the vowel must have taken place some time after that.

Aspirates existed in Early Middle Korean, but they appear to have been fewer in number than was the case later. Some aspirates developed through vowel syncope. The antecedent of the fifteenth-century verb tha ‘rides’ was transcribed in the Jilin lēishi as 轎打 [*x Çünkü-ta(ij)], indicating that the verb was then pronounced *hota. The fifteenth-century aspiration was apparently produced by syncope of the first-syllable vowel, then metathesis of the two consonants: *hota > *hta > tha [tʰa]. The Jilin lēishi transcription of ‘big’ was 黑根 [*xək-kən], which suggests the reconstruction *hukun, which gave rise to fifteenth-century khun ‘big.’ In other words, the same phonological process that produced consonant clusters also produced aspirates.

4.4.1.2 Reinforcement

Reinforced pronunciation of obstruents probably existed even in Old Korean as an automatic feature following the genitive s or a verb stem ending in the
liquid transcribed with the character ],$ usually thought to be *r. But it is not clear just when reinforced consonants first developed in initial position. It may well be that they existed as variants of s-clusters in the fifteenth century, or even before. One *Jilín lèishi transcription that adds support to that contention is 寶姫 [*puaw-dḥat ‘daughter,’ a word which probably must be reconstructed as *potol. But that word is written only as stol ṣ in Late Middle Korean texts, and never as *ptol, which is the form that should have been produced by syncope of the first-syllable vowel. How could that have happened? Perhaps the form written as stol ṣ was actually pronounced [tʔɔl], with a reinforced initial, at least as a variant. Or perhaps stol simply represents an irregular development. In any event, reinforced consonants were almost certainly not phonologically distinctive at an earlier stage of Middle Korean, in the twelfth century. There is no philological evidence for such a consonant series.

4.4.1.3 Voiced fricatives

In the fifteenth century, the letter △ represented z. Both the *Jilín lèishi and the *Hyangyak kugüppang provide evidence that that same voiced consonant also existed in the twelfth century. In the *Jilín lèishi, ‘younger brother’ is transcribed as 了兄 [*liaw-ri], and ‘forty’ as 葉刃 [*ma-rin]. Since the fifteenth-century reflexes of those Korean words are azo 앝 and mazon 맡, it seems clear that Sun Mu picked characters with the intention of representing the z sounds he heard in those words. The *Hyangyak kugüppang shows very much the same kind of transcription. One herb name, for example, is transcribed as either 豆音矣薺 or 豆衣乃耳; in the first transcription, the character 薺 ‘shepherd’s purse’ serves as a semantic gloss, and in the second, 乃耳 [*naj-ri] are phonograms representing sounds. Both transcriptions were intended to represent nazi ‘shepherd’s purse.’ Another name is transcribed 漆矣母 and 漆矣於耳, where 母 ‘mother’ and 於耳 [*ʔya˘-ri] both represent ezi 어ᇰ ‘mother, parent.’

However, not all occurrences of z in the fifteenth century go back to a z in the twelfth. The plant ‘dodder, love vine’ was transcribed in the *Hyangyak kugüppang as 鳥伊麻, where 鳥 ‘bird’ and 麻 ‘hemp’ were semantic glosses intended to be read as (the earlier reflexes of) say ‘bird’ and sam ‘hemp’ (伊 was a phonogram representing the -y glide at the end of the syllable say). That means that the twelfth-century form of ‘dodder’ was something like *saysam, a word that became sayzam in the fifteenth. Similarly, another plant name was written 板麻 ‘board-hemp,’ or *nelsam, which became nezam. These examples indicate that the change *s > z took place sometime around the fourteenth century. (The loss of *l in words like *nelsam will be discussed later.) The words twuze ‘several’ and phuzeli ‘overgrown land’ also appear to have undergone this change: twul ‘two’ + se ‘three’ > *twulse > twuze; phul
'grass' + seli ‘midst’ > *phulseli > phuzeli. And hanzwum ‘sigh’ must surely be derived from *hanswum, since, of course, swum meant (and still means) ‘breath.’ From these examples, it appears that the change s > z took place when the consonant occurred between a y, l, or n and a vowel.

On the other hand, z could apparently occur at the end of a syllable in the twelfth century. In the Jilín lèishi, the word ‘scissors’ was transcribed in phonograms as 割子蓋 [*kat-tsá-kaj]. Although there are problems with the interpretation of this transcription, in light of the fact that the fifteenth-century form of the word was kozGay [zэ], the word should probably be reconstructed as *kozgay. This word was derived from koz- ‘cut’ (attested in the 1459 Wörin sökpo, 10.13) + the nominalizing suffix -kay. Between vowels this consonant cluster underwent the following changes: [*zg] > [*zɤ] > [zɦ] > [z]. The fifteenth-century phonetic shape [zɦ] (which is transcribed phonemically in Yale Romanization as /zG/), was seen in kozGay [zэ] ‘scissors’; then, in the sixteenth century, the form became kozay [zэ], and this marked the last appearance of the z. Another example of the occurrence of [*zg] is found in the word for ‘earthworm,’ which was transcribed 居兒乎 [*kyэ-ri-xɦuэ]; this form corresponded to fifteenth-century kezGwuy 겉위 ‘id.’ and to sixteenth-century kezwuy 거위. Allowing for vowel changes, this twelfth-century form can perhaps be reconstructed as *[kezɤuy]; the fifteenth-century form was kezGwuy 겉위, and the sixteenth-century form was kezwuy 거위.

Early Middle Korean materials give no clear indication that the fifteenth-century bilabial fricative /W/ ㅸ existed in that form then. Nevertheless, it is premature to conclude that it did not. We must remember, after all, that transcribing sounds with Chinese characters was an inexact art. It is true that a bilabial fricative like [β] could perhaps have been rendered with a Chinese character read with an initial [f] or [v], but it is also possible that such a Korean consonant might have sounded to a Chinese ear more like [p] or [b]. And so, with that in mind, we notice that in the Jilín lèishi transcriptional evidence can be found for a labial consonant that might possibly have been [β]. Here are the relevant transcriptions: 途孛 [*tɦuэ-pɦut] ‘two’ (fifteenth-century twul 두음, twul 두), 酥孛 [*suэ-pɦiut] ‘rice wine’ (= swuul 수음, swul 술), 珂背 [*kʰa-puaj] ‘trousers’ (= kowoy 외), 枯孛 ‘trunk’ (= kwol 골), 雌孛 ‘scale’ (= cewul 저음). The phonograms in question here, 卣和 背, were also used to represent sounds that almost surely were labial stops; for example, 卣 ‘fire’ (pul 불) and 背 ‘cloth’ (pwoy 띄). But this double duty does not necessarily mean that they represented stops intervocally. Later, in the fifteenth century, the bilabial fricative /W/ was clearly distinct from a bilabial stop /p/; yet, the phonogram usage in the Chinese glossary Cháoxiàn-guăn yìyù, which was compiled around 1400, did not give even a hint of such a distinction.
Pre-alphabetic Korean transcriptions also do not confirm the existence of a bilabial fricative. But neither do they disprove it. It would not have been easy to provide unambiguous evidence for such a consonant in any case, since Sino-Korean has apparently never had a distinction between /W/ and /p/. And yet, notice that the *Hyangyak kuguppang* does contain transcriptions such as 多里甫里 ‘flatiron’ (*taliwuli* 多里우리). The phonogram甫 was clearly being used here to transcribe a labial that later lenited. This suggests that a *[β]* did in fact exist in Early Middle Korean even though it was not reflected in any transcription system.

Though the evidence is not nearly so clear, it appears that lenition produced /W/ in the same phonological environment that gave rise to /z/ – that is, between y or /l/ and a vowel: *[b] > [β]. This change took place at some unspecified time before the fifteenth century. We can see convincing evidence of the change in the fifteenth-century word *kulWal* 희박 ‘written letter’ (1447 *Yongbi och’on ka* 26). Since this word was a compound of kul ‘writing’ and the nominal suffix -pal, the bilabial fricative W had clearly lenited from a *p*. There are also numerous other cases where lenition must have taken place; for example: *twothwol.wam* 도톰활 ‘chestnut-oak nut’ (1481 *Tusi ohnhae* 5.26) < *twothwol’acorn* + *pam’chestnut*; *kalwem* 강됨 ‘tiger’ (1527 *Hunmong chahoe* 1.18) < *kal ‘reed’ + pem ‘tiger’; *tayWat* 대화 ‘bamboo field’ (1447 *Yongbi och’on ka* 5.26) < *tay ‘bamboo’ + pat(h) ‘field’; *tayWem* 대범 ‘big tiger’ (1447 *Yongbi och’on ka* 87) < *tay (Sino-Korean 大[TAY]) ‘big’ + *pem ‘tiger’; *meyWas* 메 방 ‘to bare a shoulder’ (1447 *Sökpo sangjöl* 9.29) < *mey ‘to shoulder’ + pas- ‘to take off.’

4.4.1.4 Terminal consonants

In Old Korean consonantal distinctions were generally maintained in syllable-final position. Much the same seems to have been true in Early Middle Korean. Here are two revealing transcriptions from the *Jilín lèishi*: 渴翅 [*khat-syi*] ‘skin’ (> LMK kach 각), 捺翅 [*nat-syi*] ‘face’ (> LMK noch olocation). These phonograms indicate that the words ended in an aspirated dental affricate *[tsʰ]*, even in isolation. It might be supposed that these forms incorporated the subject particle *i*, since, after all, before a vowel was the only environment where aspirated affricates were realized in the fifteenth century (*ka.ch_i 가치* and *no.ch_i 노치*), and it is easy to imagine that the same would have been true three hundred years earlier. But that was not the case. The subject particle does not appear once in the *Jilín lèishi*, even in constructions where it might be expected; for example: 嫗恥 [*nwen thri*] ‘snow falls,’ 孫烏囉 [*swen uo-le*] ‘guests arrive.’ Regardless what conclusions we might draw about Korean particle usage from this Chinese text, Sun Mu would certainly not have added subject particles to nouns in isolation when he did not do so in syntactic constructions. Moreover, as has been
pointed out, a terminal \( *-h \) was represented with a phonogram read with a velar coda; thus, \( *h \) was also realized in terminal position, and not just when a vowel was added.

Transcriptions in the *Hyangyak kuguppang* represent distinctions in terminal consonants even more clearly. In this book, the character ‘叱’ was not only used to represent the genitive particle ‘*s’; it was also used to represent the same sound as a terminal consonant: e.g., ‘你叱花 ’rouge (makeup),’ ‘鸡矣叱’cockscomb.’ In the first example, ‘花’flower’ is a semantic gloss, and you叱 are phonograms representing what would later be ‘nis’ёр. In the second, ‘鸡’‘chicken’ is a semantic gloss; ‘矣’was a phonogram representing the genitive particle ‘*uy’; and碧叱 were phonograms representing later ‘pyes’啌‘(chicken’s) comb.’

Besides ‘s’, the compilers of this medical treatise also represented ‘*[ts]’ as a terminal consonant. But that was not true of the dental aspirate ‘*[ts’h].’ The transcriptions did not reflect that latter distinction. On the one hand, we can see evidence for the consonant ‘*[ts]’ in the transcriptions of ‘twolac’bellflower root,’ 刀مص, 道羅مص, where the character 次 was used as a phonogram to represent a final affricate. This usage plainly indicated a contrast with the fricative ‘*s’, which, as a terminal consonant, was consistently transcribed with the character ‘叱’. This transcriptional convention dated back to Old Korean. But 次 was also used to represent the terminal consonant in ‘kach’(獐矣)加次‘(roe deer’s) skin,’ suggesting that the contrast between ‘*c’ and ‘*ch’may have been neutralized there. Of course, precisely because the use of 次 to transcribe final consonants was a convention passed down from the Old Korean period, using it as evidence for neutralization is somewhat suspect. Nevertheless, considering the system as a whole, the probability is great that such was the case.

As has been noted, the word for ‘yam’ was transcribed ‘支’. This indicates that the ‘-h’ in the Late Middle Korean form ‘mah’ was realized as such in Early Middle Korean as well.

To sum up, the contrast between ‘*c’ and ‘*ch’ was neutralized in the thirteenth century, but the contrast between ‘s’ and ‘c’ was not. This suggests that aspiration was not distinctive in terminal position except as a feature of the consonant ‘*h’. Thus, the terminal consonant distinctions that existed in the middle of the thirteenth century were ‘/p, t, k, s, z, c, l, n, m, ng, h/.

### 4.4.1.5 The liquid and its (later) development

In later stages of the language, the liquid ‘*l’ dropped before the dentals ‘*t, *s, *z, *c, *ch, *n’. But in Early Middle Korean it did not. We can see this was true because ‘firewood’ was transcribed in the *Jílín lèishì* as 孺南木 (*pul-namwo*), indicating that the terminal ‘*l’ of ‘pul ‘fire’ was preserved in this compound. Examples in the *Hyangyak kuguppang* are even clearer. For example,
‘mistletoe’ *kyezul-sali (literally, ‘winter-living’) was transcribed 冬乙沙伊, with the character 乙 used explicitly to indicate an [l] pronunciation. The plant ‘Sophora angustifolia’ *nel-sam (literally, ‘board-hemp’) was written 板麻, with the characters used as semantic glosses for ‘board-hemp.’ In Late Middle Korean texts, these two compound words were written kyezu-sali 거서사리 and ne-sam 너삼, showing that the liquid had dropped by that time. Thus, it can be seen that *l was lost in this environment by the latter half of the fifteenth century, but the process probably began a little earlier than that.

4.4.2 Vowels

Documentary evidence suggests that a significant phonological change – a “Korean Vowel Shift,” as it has been called – took place between the thirteenth and fifteenth centuries. The evidence for the change comes primarily from Mongolian loanwords.

First, we note that Middle Mongolian had a phonological distinction between front and back, with three front vowels ü, ö, e contrasting with three back vowels u, o, a. (A seventh vowel, i, was neutral in the system.) These vowels were reflected in Korean in the fifteenth and sixteenth centuries as follows:

<table>
<thead>
<tr>
<th>Mongolian</th>
<th>Front vowels</th>
<th>Back vowels</th>
</tr>
</thead>
<tbody>
<tr>
<td>ü</td>
<td>ü</td>
<td>[u]</td>
</tr>
<tr>
<td>ö</td>
<td>[uə]</td>
<td>[ə]</td>
</tr>
<tr>
<td>e</td>
<td>[e]</td>
<td>[o]</td>
</tr>
<tr>
<td>u</td>
<td>[u]</td>
<td>[a]</td>
</tr>
<tr>
<td>o</td>
<td>[o]</td>
<td>[|]</td>
</tr>
<tr>
<td>a</td>
<td>[|]</td>
<td>[|]</td>
</tr>
</tbody>
</table>

(Examples will be cited in the discussion of vocabulary in the following section.)

The crucial question is, why was the Korean vowel ㅗ equated to a front vowel? Had it been pronounced [u] in the thirteenth century, it would surely have been used to render a Mongolian back vowel. Instead, however, both of the Mongolian back vowels u and o were accommodated by the single Korean vowel ㅗ. It is reasonable to conclude from this that (the antecedent of) ㅗ was not a back vowel, but rather a front vowel, *[u], which moved to the back of the mouth by the fifteenth century. Similarly, ㅓ represented the Mongolian front vowel e and therefore must itself have been a front vowel *e that only later became [ə].

The Jilin leishi also provides some evidence bearing on the phonological values of Korean vowels. There, (the antecedent of) the Late Middle Korean low back vowel ㆍ was represented in phonograms as follows: 河屯 ‘one’ (LMK hoton *고든), 渴來 ‘walnut’ (kolay 모래), 珂背 ‘trousers’ (koWoy 모뢰), 末 ‘horse’ (mol 몽; 擺 ‘pear’ (poy 빗), 敞 ‘boat’ (poy 빗), 捞翅 ‘face’ (noch 털). The Yuan-period Chinese pronunciations of the phonograms 河,
渴, and 末 have been reconstructed as *xɔ, *kʰɔ, and *mɔ; and those of 擺, 背, and 捺 as *paj, *puj, and *na. These point to a vowel that was back and slightly rounded, perhaps something like *ɔ.

The Late Middle Korean high, unrounded back vowel — u [i] occurred in孛‘fire’ (pul 빌) and 沒‘water’ (mul 둘), the Yuan-period values of which were *pɔ and *mu. But the Late Middle Korean form khun 큰 ‘big,’ a word which was derived historically from *hukun, provides a much better clue. That form was represented in the Jılın lèishì as 黑根, and since these phonograms had the Yuan-period pronunciations *xəj and *kən, the vocalism points toward a mid value for the Korean vowel: *ə.

Here, then, is how we believe Korean vowels changed during this period:

<table>
<thead>
<tr>
<th>Thirteenth century</th>
<th>fifteenth century</th>
</tr>
</thead>
<tbody>
<tr>
<td>*i</td>
<td>[i] /i/</td>
</tr>
<tr>
<td>*ü</td>
<td>[backing] [u] /wu/ —</td>
</tr>
<tr>
<td>*e</td>
<td>[backing] [ə]/e/ —</td>
</tr>
<tr>
<td>*ə</td>
<td>[raising] [i] /a/ —</td>
</tr>
<tr>
<td>*u</td>
<td>[lowering] [o] /wo/ —</td>
</tr>
<tr>
<td>*ɔ</td>
<td>[lowering] [ʌ]/o/ —</td>
</tr>
<tr>
<td>*a</td>
<td>[a] /a/ —</td>
</tr>
</tbody>
</table>

4.5 Vocabulary

The source materials for Early Middle Korean contain more than a few lexical mysteries. Not only are the transcriptions rough and imprecise, they also contain what were surely numerous copying errors, where today we can only guess as to what the original meaning or intent might have been. But some of the Jılın lèishì and Hyangyak kuğppang transcriptions appear to be records of actual words that soon thereafter disappeared. Here are a few examples of vocabulary found in the Jılın lèishì that left no traces in later texts:稱‘dragon’ (in the 1925 edition of the Shuō fú text, the phonogram used is珍),阿尼‘Buddhist nun,’ 長官‘older brother,’ 漢吟‘young woman, female,’了寸‘married woman,’ 訓鬱‘mother’s older brother,’ 次鬱‘mother’s younger brother.’ Although scribal errors remain a very real possibility, these particular examples give every appearance of having been real words. For example, there are also traces of the word阿尼‘Buddhist nun’ in texts from the Old Korean period. Among the Silla bureaucratic offices listed in volume 39 of the Samguk sagi, one finds阿尼典 母六人, and volume 5 of the Samguk yusa contains the passage “The place where he met the woman was called 阿尼帖.”

There are also some examples in the Hyangyak kuğppang of vocabulary that later vanished. They include this entry: “Dried seeds of Citrus aurantium (枳實) [are called] 只沙伊; the rind of Citrus aurantium (枳殼) [is called]
只沙里皮．”Now, in texts from the (late) fifteenth century and after, the word for this thick-skinned orange was the completely different form *thoyungco 현주．But since the Late Middle Korean reading of the character for the tree, 桔, was *ki 기 (1527 Hunmong chahoe 1.10), both of the earlier words were perhaps compounds containing that reading: *ki-sai ‘citrus seeds,’ *ki-sali ‘citrus rind.’ Here are other examples of vocabulary that was subsequently lost: (1) “White grubs [are called] 夫背也只”; (using fifteenth-century phonemic values) this form can be reconstructed as *pwupoyyaki. Later, in LMK, the word for grubs and maggots was kwumpeng 군병, kwumpeng.i 군병이. (2) “Taro [is called] 毛立” (*mwoli). By LMK times this word for ‘taro’ had been replaced by Sino-Korean thwolan 土卵 ‘earth egg’). (3) “Lead is called 那勿 (*namol) in the vernacular.” By the sixteenth century, this word had disappeared completely from the textual record, replaced by the form nap 납. As we have already mentioned, *namol gives every indication of being a lexical holdover from Koguryŏan. That being the case, it is also possible that some of the unidentified words attested in the *Itlîn lêishî were remnants of Koguryŏ vocabulary.

4.5.1 Borrowings from Mongolian

The Early Middle Korean period was a time of contact with Mongolian, principally through Yuan-dynasty China (1206–1367). We see this Mongol influence in the Koryŏ-sa (‘History of Koryŏ’), where some of the Koryŏ official ranks listed were taken directly from rank titles used by the Yuan. But those rank names, copied from Chinese sources, reveal little about the Korean language, because we have no records of their Korean pronunciations.

More useful are loanwords related to horses, falconry, and the military. This specialized vocabulary comprised almost all the rest of the lexical borrowing from Mongolian, and in such vocabulary we see the essence of the contact between Koreans and Mongols. The Mongols were a pastoral people, and words from their nomadic, military culture left a clearly defined mark on the Korean language. Here are attestations of such Mongolian words found in the sixteenth-century alphabetic works, Pŏnyŏk Pak T’ongs’a (1517) and Hunmong chahoe (1527):

Equestrian vocabulary: acilkey-mol 아قيل게물 ‘stallion’ < Middle Mongolian (MM) aźirγa; aktay 악태 ‘gelding’ < MM arγa; celta- mol 절다물 ‘red horse’ < MM ʒe’erde; kala-mol 가라물 ‘black horse’ < MM qara ‘black’; kwola-mol 고라물 ‘brownish horse, roan’ < MM qula ‘palomino’; kwuleng-mol 구렁물 ‘chestnut horse’ < Written Mongolian (WM) küreng; kwodolkay 고둘개 ‘crupper’ < WM qudurγa; wolang 오랑 ‘girth’ < MM olang.
Falconry vocabulary: kalcikey 갈지개 ‘brown hunting falcon’ < MM qarciyi; kwekcin 겉진 ‘old wild falcon’ < WM kögsin; nachin 나친 ‘male Asiatic sparrow-hawk [Accipiter nisus]’ < WM način; pwola-may 보라매 ‘immature hunting falcon’ < WM boro < *bora; sywongkwol 송골 ‘[variant word for] falcon’ < WM šingqor, šongqor; twolwongthay 도롱태 ‘Asiatic sparrow-hawk [Accipiter nisus]’ < MM turimtai, WM turimtai, turumtai; thwuykwon 두곤 ‘white hunting falcon’ < WM tuiyun.

Military vocabulary: kwotwoli 고도리 ‘blunt arrow’ < MM γodoli; wonwo 오노, wonoy 오녀 ‘arrow notch, nock’ < WM onu, oni; pawotal 바오탈 ‘military camp’ < WM payudal, MM ba’u- (‘make camp’); sawoli 사오리 ‘stool (to stand on)’ < MM sa’uri, WM sa’uri; thyellik 텔릭 ‘officer’s uniform’ < WM terlig; chy-wulachi 측라치 ‘military musician who blows on a triton shell’ < WM ċurači.

There were also one or two Mongolian loanwords related to eating and drinking. One was thalak 타락 ‘milk’ < WM talay. Another possibility sometimes suggested was an honorific word used in the royal palace for meals served to the king, sywula 슐라 (水剌). The Middle Mongolian word šülen ‘soup,’ or a word related to it, might well be the source.

Another word borrowed from Mongolian was the subject of an interesting anecdote. Around the end of Koryŏ, the founder of the Chosŏn dynasty Yi Sŏnggye was in Unbong in Chŏlla Province chasing after Japanese pirates. At the time, there was a bold pirate chieftain, apparently no older than sixteen, who, according to a note in the Yongbi o’ch’ŏn ka (7.10) was called “aki pathwol” (아기바_tol 阿其拔都) by Korean soldiers. The note goes on to explain the name: “‘aki’ is Korean for ‘child’; ‘pathwol’ is the Mongolian word for a brave, unconquerable enemy.” This notation shows that the word pathwol, which was taken from Middle Mongolian ba’atür ‘hero,’ was widely used in Korea at the time.

4.5.2 Jurchen words

Since Jurchen lived in Hamgyŏng Province from the twelfth through the fifteenth centuries, that is where most traces of the language are found. A well-known example of a Jurchen place name is that of the Tumen River (known as Tuman-kang 豆満江 in Korean), a waterway running along the boundary between North Korea and China in its upper reaches, then between North Korea and Russia as it flows into the East Sea. In notes to canto 4 of the 1447 Yongbi o’ch’ŏn ka (1.8a), the river is called “Thwumen-kang (豆滿 투먼江)” and the name explained as follows: “In the Jurchen language ‘ten
thousand’ is *thwumen*; it was called that because a multitude of streams flowed into it.” There are also numerous other Jurchen place names listed in the *Yongbi o˘chner ka*, the geographical annals of the *Sejong sillok*, and the *Tongguk yöji sünnam* 東國輿地勝覽, a gazetteer published in the Chosón period during Sŏngjong’s reign (1469–94). For example, in the *Yongbi o˘chner ka* (7.23a), the place name Wehe (斡 合 候) is accompanied by the explanation, “In this place round stones are piled up, often more than 200 chang (600m.) high . . . In the [Jurchen] language ‘rock’ is *wehe*, and so the name comes from [the nature of] the land.” There is a similar entry in the *Tongguk yöji sünnam* gazetteer. Not only are these records in accord with extant Jurchen materials, the word for ‘rock’ used by the Manchus, a people believed to be descended from or closely related to the Jurchen, was also *wehe*. Another Jurchen word found in Korea was *tungken* ‘bell,’ which is attested in an old name for Chongsŏng (鐘城 ‘Bell City’). Chongsŏng, a city on the northern border of North Hamgyŏng Province, is located in the middle of erstwhile Jurchen territory, and its name bears witness to that origin. In the *Sejong sillok* geographical annals, the name is explained: “The northern barbarians call a bell *tungken* (童巾); the Tungken Mountain (童巾山) is in this district, thus the name [of the city].” There is also something else to be said about this word. In Jurchen materials, *tungken* (written 同 肯) meant ‘drum.’ (Not coincidentally, the Manchu word *tungken* meant the same thing.) Most likely, ‘drum’ was the original meaning, and when the Jurchen came into closer contact with Sinitic civilization, they extended the word’s meaning to include ‘bells,’ which were new to their society. Notice that in Korean (as attested in the Late Middle Korean period), ‘bells’ were also at first called ‘drums’ (*pwup* 콧), then later, ‘iron drums’ (*swoy-pwup* 쌈). The semantic association in Jurchen between drums and bells seems to have been similar.

4.5.3 Sinitic vocabulary

Words associated with Chinese characters began to inundate the language in Middle Korean times. In order to strengthen royal authority, King Kwangjong (949–75) instituted a series of reforms, and these served as a spur to the growth in importance of Chinese. The centerpiece of the reforms was the establishment of a Chinese-style civil service examination in 958, an action guaranteeing a heightened attention to Chinese writings among the ruling classes. As a result, specialized and literary terminology from Chinese swelled the Korean lexicon, often at the expense of older, native words, which then fell into disuse. A glimpse of this process can be seen in the lexicon of the *Jilín lèishi*. There, for example, ‘100’ was transcribed with the phonogram 酃 (百曰醃 representing the native word that would be written
won doch in the fifteenth century), but ‘1,000’ was rendered only by the Chinese character for ‘1,000’ (千千千). This transcriptional choice indicates that Koreans were then using the Chinese word for the larger number. Of course, since the native Korean word for ‘1,000,’ cumun 총몬, was attested later, in fifteenth-century documents, both native and Chinese words for ‘1,000’ must have coexisted in the twelfth century. But the native word had already begun to be displaced by the Chinese term during the Koryŏ. And after the fifteenth century it disappeared completely from the textual record.
Late Middle Korean is the stage of the language reflected in the Hangul texts of the fifteenth and sixteenth centuries. It is the earliest stage that is fully attested. Written records from before the invention of Hangul are fragmentary, unsystematic, and difficult to interpret; sound systems from earlier, pre-alphabetic periods must to a great extent be reconstructed. The use of the new alphabet changed that completely. The *Hunmin ch’ongūm* and the Hangul texts which followed it over the next century and a half present a fully developed and finely detailed picture of the phonological system, complete with transcriptions of its phonemes and allophonic variants. It is a contrast difficult to overstate: on the earlier side of this fifteenth-century divide there are hazy adumbrations; after 1446, there are precise and clearly defined written records. In quality and accuracy of phonological detail, the Hangul texts of Late Middle Korean are arguably the finest premodern linguistic records in the world.

Phonological and morphological quality is seldom matched by syntactic and stylistic quality, however. The body of Hangul works from this period consists mainly of vernacular exegeses of Chinese texts, and the compositional style is that of translation. In the fifteenth century there was already a long tradition in Korea of clarifying the reading of a Classical Chinese text through the use of *kugyŏl* inserted into the body of the text, and the creation of these exegeses, called ὀνδαι (諺解), must have been influenced by the earlier notational tradition. As a result, it is difficult to find Late Middle Korean texts written in a style that reflected the syntax of natural, idiomatic Korean. Almost the only works thought to lack this stilted quality are the *Sŏkpo sangjŏl* of 1447 and the *Pŏnyŏk Pak T’ongsa* and *Pŏnyŏk Nogŏltae* of the early sixteenth century. Strictly speaking, the *Sŏkpo sangjŏl* also belongs to the ὀνδαι genre, but the prose shows a natural stylistic quality that contrasts with that of other works of the period. The *Pŏnyŏk Pak T’ongsa* and *Pŏnyŏk Nogŏltae* are even more unusual; they are narratives written, for the most part, in everyday, conversational style.

Almost all Late Middle Korean Hangul texts were published in the Seoul capital. Many of these works, especially those issued early in the period, were
compiled in government offices, such as the Vernacular Script Commission (Ŏnmun Ch’ŏng 諺文廳) or the General Directorate for the Publishing of Sūtras (Kaŋ’gyŏng Togam 刊經都監), and probably for this reason they reflect an extremely homogeneous language. Scholars from other parts of the country occasionally participated in the compilations, but for the most part the resulting works appear to represent the language then spoken by the upper classes of the central region.

5.1 Sources

5.1.1 Chinese

The alphabetic record of this period extends from the publication of the Hunmin chŏnguım in 1446 to the Japanese invasion of 1592. However, these are not the only records of Late Middle Korean, nor are they the earliest. A Chinese booklet called Cháoxiàn-guān yìyǔ (‘A Glossary from the Chosŏn Interpreters Institute’ 朝鮮館譯語), which dates from around 1400, contains a list of Korean words transcribed with Chinese characters used as phonograms. Though similar in structure to the earlier, Koryŏ-period glossary, the Jīlǐn lèishiè, this Korean glossary from Ming China reflects linguistic characteristics enough like those seen in Sejong’s Hangul texts to be classified as a Late Middle Korean document. While far less revealing, the Chinese word list can be used to supplement information from the alphabetic texts.

The Cháoxiàn-guān yìyǔ is contained in the Hwá-Yí yìyǔ (‘Sino-Xenic Glossaries’ 華夷譯語), a Chinese-government collection of word lists from various languages. These word lists, the compilation of which was begun in the early Ming dynasty (1368–1644), fall generally into four groups by origin. The oldest is the 1389 prototype for the compilation, called simply the Hwá-Yí yìyǔ, which was a collection of words from Mongolian. Following that first word list came the compilations produced by offices responsible for tributary affairs, the Translators Institute (四夷館) and the Interpreters Institute (會同館). Finally, the last and most recent of the word lists were those compiled by the Interpreters and Translators Institute, the office into which the two previous government offices were combined in 1748.

The Cháoxiàn-guān yìyǔ was one of thirteen glossaries compiled by the Interpreters Institute. The compilations of the Interpreters Institute are difficult to date with any precision, but the Cháoxiàn-guān yìyǔ appears to be among the earliest. Probably first compiled around the beginning of the fifteenth century, it later went through a few minor emendations. Several copies of the text are preserved in London and Japan, and all show small differences in content. Still, each of the copies contains 590 word entries, and each entry is formulaically divided into three parts. This three-part form is
illustrated by the first entry, “天 哈嫩二 巳.” The first part of the entry, 天, represents the Chinese word tìān ‘heaven.’ The middle part, 哈嫩二, is a representation, in phonograms, of the Korean word for ‘heaven,’ hanol. Using Mandarin approximations, the reader would presumably have read the transcription as something like haner (the third character, 二, which today is pronounced èr, was used to approximate the final liquid of the Korean word). The last part of the entry was the character 巳, which was another phonogram. Pronounced tiān in Mandarin, the phonogram was intended to represent the Korean reading of the Chinese character 天, which, at the time, was [tyən].

5.1.2 Korean

The textual record of the Chosŏn dynasty is customarily classified by the reign dates of the dynasty’s kings. The first and most important era is that of Sejong, who presided over the early years of the alphabet, in the middle of the fifteenth century.

5.1.2.1 Fifteenth century

Sejong (r. 1418–50) The Korean alphabet, usually known today as Hangul, was promulgated in an official document known as the Hunmin chŏngŭm (‘The Correct Sounds for the Instruction of the People’ 訓民正音). First issued in a 1446 woodblock edition, the original printing of this document was bound together as a single book consisting of two parts, both of which were written in Classical Chinese. The first part is the Hunmin chŏngŭm proper. It is a small handbook of only four leaves that was intended to serve as a primer for teaching the new alphabet. The second part, the Hunmin chŏngŭm haerye (‘Explanations and Examples of the Correct Sounds for the Instruction of the People’ 訓民正音解例), is a long (29-leaf), scholarly treatise written by a group of young scholars commissioned by the king. It concludes with a postface written by Chŏng Inji, the head of the royal commission. This second part, the Haerye text, is our primary source of information about the shapes, construction, and use of the original Hangul letters; it provides an explanation of the phonological and philosophical theories upon which the writing system is based; and, finally, in the process of explaining the use of the alphabet, it provides an analysis of the Late Middle Korean phonological system, giving examples of words and sounds and how they were to be written. Most citations of linguistic information from the Hunmin chŏngŭm come from the Haerye text. Several copies of the Hunmin chŏngŭm have been preserved, but only one copy of the first edition containing the Haerye text is known to have survived. This unique and invaluable text was discovered in Andong, North Kyŏngsang Province, in
1940, after which it was purchased by the late Chŏn Hyŏngp’il, and is now preserved in the Kansong Library.

As noted above, the text of the Hunmin chŏngŭm was written in Classical Chinese, and it was only somewhat later that the basic text was translated into Korean. A surviving copy of this latter, Korean version, known as the Hunmin chŏngŭm o˘nhae, was found attached to the beginning of the first volume of the Wŏrin sŏkpo. Just when the Korean translation of this seminal text was made is not known, but it is believed to have been made quite early, during Sejong’s reign or slightly thereafter.

The Yongbi o˘ch’ŏn ka (‘The Song of the Dragons Flying Through Heaven’ 龍飛御天歌) was written in 1445, reworked, and later published in 1447. The early date of its composition makes the Yongbi o˘ch’ŏn ka the first work of literature ever written using the Korean alphabet. An epic poem composed by order of King Sejong to eulogize the founders of the Chosŏn dynasty, the Yongbi o˘ch’ŏn ka consists of 125 stanzas, each of which is followed by a translation in Chinese.
verse, which in turn is followed by a Chinese commentary. The linguistic value of the text lies not only in the Korean stanzas, but also in many of the personal and place names embedded in the Chinese commentary. These names written in Hangul and glossed in Chinese often provide the historical linguist with unique attestations of early morpheme shapes. The ten volumes of the first edition have all survived, but they are preserved in various different libraries in Korea. A later edition of uncertain date printed before the Japanese invasion, as well as still later redactions from 1612, 1659, and 1765, are preserved in the Kyujanggak Library of Seoul National University. The version most widely available to the public is a photocopy of the 1612 edition.

The Sŏkpo sangjol (‘Detailed Articles on the Record of Sakyamuni’) was the first of many Buddhist works to be published during the early Chosŏn dynasty. Distressed by the death of his queen in 1446, King Sejong

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1 However, there is ample reason to believe that the Chinese versions of the verses were composed first. According to the Sejong sillok, the king was planning the compilation in 1442, well before the announcement of the alphabet in 1443/4, and the evidence is that he was thinking only of creating Chinese verses at the time, not having yet conceived of creating Korean versions (see Ledyard 1998, p. 328).
urged his son, Prince Suyang (the later King Sejo), to head a group of writers and compile a devotional work in her memory. The compilation that resulted from this directive was completed in 1447. Of the estimated twenty-four original volumes of the *Sŏkpo sangjŏl*, only eight volumes (6, 9, 13, 19, 20, 21, 23, 24) from the first, movable-type edition survive. The copies of volumes 6, 9, 13, and 19 are complete; they are preserved today in the National Library. Fragments of the two volumes 23 and 24 are kept in the Tongguk University Library, and volumes 20 and 21 are in the Hoam Art Library. Later reprints of volumes 3 and 11 are extant and kept in private collections.

The *Wŏrin ch’ŏn’gang chi kok* (‘Songs of the Moon’s Imprint on the Thousand Rivers’ 月印千江之曲) was written about the same time, and published in 1447 as a companion piece to the *Sŏkpo sangjŏl*. According to the *Sŏkpo sangjŏl* preface, King Sejong was so moved by Prince Suyang’s work, he composed these Buddhist hymns of praise himself. Of the original three volumes of Sejong’s verse, which were apparently printed with the same
movable type used for the Sŏkpo sangjŏl, only volume 1 is known to still exist. This particular volume contains 194 poems, but all the verses of the Wŏrin ch’ŏn’gang chi kok, including those from the missing volumes, were later incorporated into the Wŏrin sŏkpo, and a number of volumes of this later work remain in existence. It is estimated that the original, complete text of the Wŏrin ch’ŏn’gang chi kok contained around 580 poems.

One of the major purposes of the new alphabet was to indicate the pronunciations of Chinese characters, and Sejong early on established a commission concerned with this task. The first work the commission compiled was the Tongguk chŏngun (‘The Correct Rimes of the Eastern Country’ 東國正韻), which was completed in 1447, then printed and distributed to schools in November, 1448. The Tongguk chŏngun is a six-volume dictionary of Chinese characters issued as an official standard for Sino-Korean pronunciations. The pronunciations that it contains are very much prescriptive and intended to “correct” the Chinese character pronunciations then in use in Korea. And though it ultimately failed to accomplish this objective, the artificial pronunciations the Tongguk chŏngun specified were followed
carefully in the Hangul writings published over the next few decades. In 1940,
the first and last volumes (1, 6) of the dictionary came to light and are kept
today in the Kansong Library; then, in 1972, a copy of the complete text was
found and is now in the possession of Kŏn’guk University. Another compila-
tion of Chinese characters, the Hongmu chŏngun yŏkhun (‘The Correct Rimes
of Hong Wu, Transliterated and Glossed’ 洪武正韻譯訓), was published in
1455. Printed in sixteen volumes, this dictionary gave the pronunciations in
Hangul for all of the characters in the 1375 Ming Chinese dictionary, the Hóng
wū zhēng yün 洪武正韻. But the Hongmu chŏngun yŏkhun differed from the
Tongguk chŏngun in that it was meant to record the Chinese pronunciations of
characters, not Korean ones. A copy of the Hongmu chŏngun yŏkhun is in the
possession of Koryŏ University, but it is missing the first two volumes, as well
as a few Hangul transcriptions in other volumes, which were apparently cut out
and removed. Because the Hongmu chŏngun yŏkhun was so voluminous, it was
abridged and published as the Sasŏng t’onggo (‘A Thorough Investigation of
the Four Tones’ 四聲通考). Although that latter work has not survived, it was
used by Ch’oe Sejin as the basis for his 1517 dictionary, the Sasŏng t’onghae
(‘A Thorough Explanation of the Four Tones’ 四聲通解), a work in which he
also reproduced the original introductory material. All of these lexical works
provide valuable information for research on the history of Chinese phonology.

Sejo (r. 1455–68) The Wŏrin sŏkpo (月印釋譜) (twenty-five volumes, 1459)
puts together the Wŏrin ch’ŏn’gang chi kok and the Sŏkpo sangjŏl. This later,
combined edition of the two works underwent considerable expansion and
revision and was then published in a woodblock edition. Until recently, only
the first volume, along with the copy of the Hunmin chŏngŭm ŏnhae attached
to it, was believed to survive from the original printing, but in recent years a
number of other volumes have also been discovered. Nevertheless, many of
the volumes of that first run are still missing, and most of what is extant
comes from later reprints and recut woodblock editions found in various
Buddhist monasteries. The Wŏrin sŏkpo was long thought to consist of only
twenty-four volumes, but more recently volume 25 was also found.

In 1461 King Sejo established the General Directorate for the Publication of
Sūtras (Kan’gyŏng Togam 刊經都監), and the first work this office compiled and
published was the Nŭngŏm kyŏng ŏnhae (‘A Vernacular Interpretation of the
Sūrarāgama sūtra’ 楞嚴經譯解). The ten volumes of the text were originally
published that same year, in 1461, in a movable-type edition, then, the following
year, in a woodblock printing. A number of other Buddhist works soon followed:
The Pŏphwa kyŏng ŏnhae (法華經譯解) (seven volumes, 1463); the Kŭngang
kyŏng ŏnhae (‘The Diamond sūtra’ 金剛經譯解) (one volume, 1464); the Sŏnjong
yŏngga chip ŏnhae (禪宗永嘉集譯解) (two volumes, 1464); the Amit’a kyŏng
ŏnhae (阿閦陀經譯解) (1464); the Panyasim kyŏng ŏnhae (般若心經譯解)
(1464); the Wŏn’gak kyŏng ŏnhae (圓覺經譯解) (twelve volumes, 1465); the
Moguja susimgyŏl ŏnhae (牧牛子修心訣詮解) (one volume, 1467). First editions of these works are extremely rare; most of the various extant copies are reprints or recut woodblock editions. What is usually called the Odaesan Sangwŏnsa chung-ch’ang kwŏnsŏnmun (五臺山 上院寺 重創 勤善文) of 1464 is composed of two things: a royal letter sent by King Sejo and his queen offering aid for the repair of the Sangwŏn Temple, and the Chungch’ang kwŏnsŏnmun document itself, written by the Buddhist monk Sinmi (信眉). Although these texts are very short, they are of special interest because they are handwritten. They are kept today in a repository of the Wolchŏngsa Temple in Kangwŏn Province. Another text written in Korean script during the reign of King Sejo, but with no connection to Buddhism, is the Kuguppang ŏnhae (‘A Vernacular Interpretation of Prescriptions for Emergency Treatment’ 救急方詮解). The two volumes of this work were written around 1466, but still extant are only two copies of a later recut woodblock edition (one preserved in the Hŏsa Library in Japan, and the other in the Karam Library of Seoul National University). The text is the oldest pharmacological work written in Korean script.

Sŏngjong (r. 1469–94) Although interest in Buddhism waned after the death of King Sejo, Buddhist works continued to be published throughout the reign of his successor, King Sŏngjong. The Mongsan Hwasang pŏbŏ yangnik ŏnhae (蒙山和尚語略錄詮解) (one volume), a Korean version of a popular work from the Chinese tripitika, is believed to have been printed in 1472. This text is characterized by an extremely conservative orthography that gives it the appearance of a much older work. The Kŭmgang kyŏng samga hae (金剛經三家解) (five volumes) and the Yŏngga taesa chŭngdo ka Nammyŏngch’ŏn sŏnsa kyesong ŏnhae (永嘉大師證道歌南明泉禪師繼頌詮解) (often abbreviated to Nammyŏng-chip ŏnhae 南明集詮解, two volumes) were published in 1482. (They are now kept in the library of Seoul National University.) The Pulchŏng simgyŏng ŏnhae (佛頂心經詮解) (three volumes) and the Yŏnghŏm yakch’o (靈驗略抄) (one volume) were both published in 1485, and it is noteworthy that they are the last Korean interpretations of Buddhist works that follow the prescriptive pronunciations of Chinese characters laid down in the Tongguk chŏngun. (Both are now in the possession of Seoul National University.)

From the beginning, Sejong had planned to produce vernacular editions of some of the more important works in the Confucian canon, but, for one reason or another, these projects had been largely set aside. Then, as interest in Buddhism faded and the state became more strongly neo-Confucian, works of this genre began to appear. Didactic works became a focus of attention during Sŏngjong’s reign. The Naehun (內訓) (three volumes), published in 1475, was a work the Queen Mother Insu Taebi had compiled as a moral guide for aristocratic ladies. The oldest version of this work still in existence
today is a reprint from 1573 (in possession of the Hōsa Library in Japan),
which bears traces of alterations added to the original edition. Sejong himself
had been particularly interested in the teaching of neo-Confucian morality,
and toward that end he had had assembled a collection of stories illustrating
virtuous behavior by loyal subjects, filial sons, and faithful wives. The
resulting book of anecdotes, which was published in Chinese in 1434, was
called the Samgang haengsil to (‘The Three Bonds and Actual Examples of
Their Practice, with Illustrations’ 三綱行實圖). Around the time the alphabet
was invented, there had been some discussion of a Korean translation, but the
work remained available only in Chinese during Sejong’s reign. Then, in
1481, more than three decades after his death, a Korean version was finally
published, and in various editions, it remained a popular work up until the end
of the dynasty. Just when this Korean translation was actually made is not
known, but, judging from the conservative nature of the orthography seen in
the use of the symbols ㅸ and ㆆ, it appears to have been completed at a much
earlier time. Of the various editions still in existence, the oldest is the one
preserved in the Sŏngam Library, which is possibly the first edition.

A variety of secular writings were published during Sŏngjong’s reign.
An especially popular work of this kind was the Korean exegesis of the Tang
poet Dù Fù’s poems, the Pul’vyu Tu kongbu si ŏnhae (分類杜工部詩諺解),
the title of which is customarily shortened to Tusi ŏnhae (杜詩諺解) (twenty-five
volumes). Compiled by the scholar Cho Wi at the king’s command, the work
was finished in 1481, but a complete copy of the first edition has as yet not
been found. Still missing are volumes 1, 2, and 4. (Most of the extant volumes
are in the possession of Yi Kyŏmno.) Du Fu’s verses were widely read and
loved in traditional Korea, and the literary quality of this Korean translation
was high. It is one of the best of the ŏnhae genre. For both qualitative and
quantitative reasons, the Tusi ŏnhae is especially valuable as material for
linguistic research. One noteworthy feature of the text is that it is the first
work not to follow the prescriptive values laid down for Sino-Korean readings
during Sejong’s reign. Although it does not usually give sound glosses for
Chinese characters, the transcriptions of words of Sino-Korean origin are
believed to follow actual pronunciations.

The Kugûp kani pang (‘Simplified Prescriptions for Emergency Treatment’
救急簡易方) (eight volumes) was a pharmacological work compiled in 1489
based upon the earlier Kugûppang ŏnhae. Only later recut woodblock editions
of this work survive. When the high-ranking scholar-official Kang Hŭimaeng
retired from office to his home in Kŭmyang (present-day Sihŭng, just south of
Seoul), he wrote a treatise on agricultural practices called the Kŭmyang
chammok (衿陽雜録). This comprehensive essay was published in 1492, and
a copy is preserved today in the Japanese Cabinet Library. In the same year,
1492, the Chosŏn dynasty Interpreters’ School (司譯院) published a Korean
version of the Japanese *Iroha* (伊路波) poem, a copy of which can be found today in the collection of Kagawa University in Japan. By transliterating the Japanese syllabary into Hangul, this textbook of Japanese provides phonetic information valuable for historical research on Japanese phonology. It is the only language text published by the Interpreters’ School in the fifteenth century that still survives.

**Yŏnsan’gun (r. 1494–1506)** During Prince Yŏnsan’s short reign as monarch, two representative Hangul writings were published: the *Yukcho pŏppodan kyŏng ḏŏnhae* (六祖法寶壇經諺解) (three volumes) and the *Sisik kwŏn’gong* (施食勸供) (two volumes). Both of these Buddhist works were printed in 1496 at the behest of the Queen Mother Insu Taebi, who considered them important, the *Sisik kwŏn’gong* in particular, because it was a translation of texts needed for the Buddhist mass, the *Chinŏn kwŏn’gong* 聞言勸供 and the *Samdan sisik* 三壇施食. (Copies of these two volumes, as well as the first volume of the *Yukcho pŏppodan kyŏng ḏŏnhae*, are maintained in the Ilsan Library.) The *Yukcho pŏppodan kyŏng ḏŏnhae* and the *Sisik kwŏn’gong ḏŏnhae* broke with tradition by not following the prescriptive pronunciations specified by the *Tongguk chŏngun*, and, by transcribing the actual readings of Chinese characters, mark a turning point in the textual record.

5.1.2.2 Sixteenth century

While the alphabetic works of the fifteenth century have received a great deal of attention ever since the beginning of the twentieth century, research on the sixteenth-century corpus began in earnest only in the 1950s. (The lone exception is the 1527 Sino-Korean glossary *Hunmong chahoe*.) Nevertheless, a significant number of Korean-language works were published during the reigns of Chungjong and Sŏnjo in particular, and it is fortunate indeed that copies of almost all of these texts have now been found. In Korea itself, not a few have been completely lost, but in Japan, where a great number of Korean books are believed to have ended up during and after the Imjin Wars, many of these still exist. Writings of the sixteenth century are of particular importance because they make it possible to determine how the language changed between the Middle Korean and Early Modern stages.

**Chungjong (r. 1506–44)** Books published during the reign of Chungjong include: the *Sok Samgang haengsil to* (續三綱行實圖) (1514), the *Iryun haengsil to* (二倫行實圖) (1518), the *Pŏnyŏk sohak* (譯譯小學) (1518), the *Yŏssi hyang-yak ḏŏnhae* (呂氏鄉約諺解) (1518), the *Chŏngsok ḏŏnhae* (正俗諺解) (1518), the *Kani pyŏgon pang* (簡易辟瘟方) (1525), the *Uma yangjŏ yŏmyŏkpyŏng chi’iro pang* (牛馬羊豬疫病治療方) (1541), the *Punnun onyŏk ihae pang* (分門瘟疫易解方) (1542), as well as the various works written by Ch’oe Sejin.
The *Sok Samgang haengsil to* (one volume) was patterned after its predecessor, the *Samgang haengsil to* of 1434, and as a result its orthography is peculiarly archaic. The letters ㅸ and ㆆ, for example, are used in its spellings, even though the two symbols were by that time ordinarily no longer in use. The first edition of the *Sok Samgang haengsil to* is missing, and the reprint found in the Karam Library is believed to be the oldest known copy. The *Iryun haengsil to* portrays in writing and in illustrations exemplary acts bearing on the relationship between the old and the young, and the relationship between friends (a copy of the first printing is extant and preserved in the Oksan Reading Room in Wŏlsŏng County, North Kyŏngsang Province; another is kept in the library of Ehwa University). Seven volumes of the *Pŏnyŏk sohak* (‘A Translation of [Zhu Xi’s] “Lesser Learning” ten volumes) are extant (volumes 3, 4, 6, 7, 8 at Koryŏ University, 9 in the Karam Library, and 10 at the National Library), and all appear to be from a later edition. The *Yŏssi hyangyak ŏnhae* and the *Chŏngsŏk ŏnhae* are both translations by Kim An’guk of Chinese books about villagers helping each other and following codes of ethics and proper customs. Both contain kugyŏl marking as well as Hangul to explicate the texts. Copies in excellent condition can be found in the Sonkeikaku Library in Tokyo, and in the collection of Yi Wŏnju. The *Kani pyŏgon pang* and the *Punnun onyŏk ihae pang* are medical works intended to teach methods of treating infectious diseases, and the *Uma yangjŏ yŏmyŏkpyŏng ch’iryo pang* is a book about the pharmacological treatment of veterinary diseases. The first printings of these three works have not been found, but the contents can be recovered through later reprints.

Throughout the Late Middle Korean period, Hangul was not considered a primary medium of literacy. That role, after all, was served by Chinese characters and Classical Chinese, and the supremacy of Chinese writing remained unchallenged. As a result, the vernacular writing system was employed only as a practical, linguistic tool. Hangul was used to explicate the reading of Chinese texts and the pronunciation of Chinese characters, and, for Buddhist doctrine and neo-Confucian ethics and ideology, a method of disseminating information and proselytizing.

Nothing illustrates this practical aspect of the vernacular script better than the pedagogical works of the Interpreters’ School, and the central figure in this foreign language pedagogy was Ch’oe Sejin. As professor of Chinese and a renowned interpreter of that language, Ch’oe wrote a wide variety of pedagogical and lexical works for which he is still much admired. His dictionaries, textbooks of colloquial Chinese, and other pedagogical materials reveal much to us today about how both Korean and Mandarin Chinese were spoken at the time. Among the most important of his works were the Korean versions of the textbooks *Nogŏltae* (‘The Old Cathayan’ 老乞大) and *Pak T’ongsa* (‘Interpreter Pak’ 朴通事). The first volume of *Pŏnyŏk Pak T’ongsa*
Fluent translation

Although the *Pønyŏk Nogŏltæ* was a textbook for learning colloquial Chinese, it was, ironically, also one of the very few early Korean works written in natural, conversational Korean.

*Figure 8. The Chinese-language textbook, “The Old Cathayan”*

Although the *Pønyŏk Nogŏltæ* was a textbook for learning colloquial Chinese, it was, ironically, also one of the very few early Korean works written in natural, conversational Korean.
Song Sŏkha, but today its whereabouts are unknown. The copies presently to be found in the Kyujanggak Library are ones printed soon after the Imjin Wars.

The work for which Ch’oe Sejin is best known, however, is his 1527 Sino-Korean glossary, the *Hunmong chahoe* (‘Collection of Characters for Training the Unenlightened’). It is this work for which he has justifiably been most praised. Intended as a pedagogical compilation, the *Hunmong chahoe* gives both Sino-Korean and native Korean readings, as well as definitions, for 3,360 Chinese characters. What sets Choe’s dictionary apart from earlier compilations is that its Sino-Korean readings reflect actual pronunciations, not prescriptive standards, and for this reason it is the earliest systematic source of Sino-Korean pronunciations. In addition, the *Hunmong chahoe* is the source of the alphabetical order and the names used today for the Hangul letters. A copy of the original, movable-type edition, as well as a woodblock redaction of the text published immediately after the original, can be found in Japan, in the Eizan Library in Shiga Prefecture and the Tokyo University Central Library.

Figure 9. The sixteenth-century Chinese–Korean glossary, *Hunmong chahoe*
This dictionary gives the natural Korean reading of each character together with a corresponding native Korean word. It is also the source of the Korean alphabetical order and the names used today for the Hangul letters.
Sŏnjo (r. 1567–1608) Several books published during the reign of Sŏnjo are linguistically useful today. The *Ch’iltae manpŏp* (七大萬法) (one volume) is a Buddhist book published in 1569. According to its inscription, the book was first printed in the Hŭibang Temple of the Sobaek Mountain in the P’unggi area of North Kyŏngsang Province. This work is unusual in that, first of all, the text contains no Classical Chinese and instead is written in a mixed style of Chinese characters and Hangul. Another unusual feature of the text is that it reflects dialect elements from Kyŏngsang. The *Sŏn’ga kwigam* (禅家龜鑑) was originally a Chinese-language introduction to Zen Buddhism written by the priest Sŏsan (Hyujo˘ng) in 1564, and the Pohyon Temple issued a vernacular exegesis of that work in 1569 (a copy is preserved in the private collection of Lee Ki-Moon). Three editions of the *Ch’o˘njamun* (‘The Thousand Character Classic’ 千字文) published before the Imjin Wars are preserved in Japan. One was printed in Kwangju in 1575; it is kept in the Ogura Library of Tokyo University. It is characterized by very conservative Korean forms used to explicate the Chinese characters. Similar but with certain differences is the edition in the collection of the Daitókyū Memorial Library in Tokyo; the publication date of this work is unknown. The third edition is a first printing of the so-called *Sŏkpong Ch’o˘njamun* (石峰千字文) published in 1583 and is kept in the Japanese Cabinet Library. This edition shows many points of difference from the later, “Kapsul” reprint of 1754(?), which is often reproduced in Korea. The *Sinjŭng yuhap* (新增類合) (two volumes), a lexical work compiled by Yu Huich’un and published in 1576, gives Korean explications and readings for 3,000 Chinese characters. Copies in excellent condition can be found in both Korea and Japan (in the possession of Kim Tonguk and the Tōyō Bunko). Two printed versions of the *Yaun chagyŏng* (野雲自警), the *Palsim suhaengjang* (發心修行章), and the *Kyech’o simhak inmun* (誡初心學人文), have been preserved. One of these two Buddhist compilations is from 1577, and the other is from 1582. The print notice for the first indicates that it comes from the Songgwang Temple on Chogy Mountain in the Sunch’ŏn area of Chŏlla Province (several copies of this work are extant); the print notice of the other states that it originated in the Sŏbongsa Temple on Kwanggyo Mountain in Yongin, Kyŏnggi Province (there are only two known copies of this rare work, one in the Yŏngnam University Library and the other in the Ogura Library in Tokyo).

Vernacular exegeses of the “Lesser Learning” and the “Four Books” were published in the government office known as the Kyojŏng Ch’ŏng (校正廳), and these are the last materials that show the characteristics of the Middle Korean stage of the language. (All are in the possession of the Tosan Sŏwŏn.) The first of these texts to be finished was the exegesis of the “Lesser Learning” (*Sohak ŏnhae* 小學詁解) (six volumes). Published in 1588, an inscription indicates that the work was completed in 1587. As is pointed out in the postface, this book was unlike the relatively free-flowing *Pŏnyŏk Sohak*, because it was based upon a more literal translation of the Chinese
original. The Korean versions of the “Four Books”（Sasŏ ḏŏnhae 四書諺解） – the “Great Learning”（大學諺解），the “Doctrine of the Mean”（中庸諺解），the “Analects of Confucius”（論語諺解），and the “Mencius”（孟子諺解） – have no postface or print notice, but from a dedication inscription it can be surmised that they were published in 1590. The Korean version of the “Canon of Filial Piety”（孝經諺解）(one volume) was published in 1590 and is preserved in Japan in the Sonkeikaku Library. Although this book was not published in the Kyŏjong Ch’ŏng, it bears the features of works from that office.

5.2 The Korean alphabet

In traditional East Asia, phonology began with the syllable. As the sound unit represented by a Chinese character, it was thought of as the building block of language. Fairly early on, however, the Chinese realized that syllables could rime, they could alliterate, and so on; by about the fifth century AD they knew that syllables could be classified into four tonal categories. These structural regularities made the syllable amenable to analysis. Before that time, the only way to transcribe pronunciation was with a homophone. But now, with expanded knowledge, the Chinese were able to develop a better method. They realized that if two syllables alliterated, they shared the same first sound, which they (later) called the “character mother”（字母）. If two syllables shared all the rest of their sounds, they were said to have the same “rime mother”（韻母）. Thus, the pronunciation of a syllable could be indicated with two characters, one alliterating character to gloss the initial sound, and a second character sharing everything besides the initial to gloss the rest of the syllable. This Chinese spelling method was called fānqiè (反切), or “turning and cutting,” and it was how pronunciations were indicated in all Chinese dictionaries up until modern times. In this division, there was no explicit awareness of discrete consonants and vowels, but, in effect, specifying the “character mother” was to identify the initial consonant (if the syllable began with a vowel, the initial consonant was zero). The fānqiè method of spelling represents a discovery that the syllable could be divided into two separate units, and this discovery made Chinese phonological science possible. It gave Chinese scholars a way to record, after a fashion, the phonological system of their language.

In Korea, this syllabic phonology of the Chinese was adapted and greatly improved upon. Whereas the Chinese division of the syllable had been into two parts, in Korea, with the invention of the Korean alphabet, the analysis changed into a three-way division. This new, Korean analysis appeared for the first time in the promulgation document for the alphabet, the Hunmin ch’ŏngŭm, where the syllable is divided into an “initial sound”（初聲）, a “medial sound”（中聲）, and a “terminal sound”（終聲）. In modern phonemic analyses, “initial sounds” and “terminal sounds” have equal standing as phonological units since they are all identified as consonants. But for Sejong the initial sounds were more basic
because they were the departure point provided by the Chinese-style framework. His innovation was that he realized the initials could be equated to sounds occurring at the end of the syllable: “For the terminal sounds, one again uses the initial sounds,” he wrote. That was all he chose to say about the terminals. Since the initial sounds had all been listed and explained, the terminal sounds did not need to be given again because they were the same. The part of the syllable that remained was the “medial sound,” which we recognize as the vocalic element. Thus arose the discovery of the vowel, for which separate symbols were devised, making the new writing system into a true alphabet.

5.2.1 The initial sounds

The Hunmin ch’ŏngŭm provides seventeen letters for initial sounds. The sounds associated with the letters are illustrated with Chinese characters (using prescriptive pronunciations later spelled out in detail in the Tongguk chŏngun of 1447). The reason is that, as the Haerye explains: “The initial sounds of the [new writing system] are equivalent to the Character Mothers of the rime books.” In addition, the Hunmin ch’ŏngŭm notes that six of the letters (ㄱ, ㄷ, ㅂ, ㅈ, ㅅ, ㅎ) could be doubled and used as geminates. These geminate spellings (ㄲ, ㄸ, ㅃ, ㅉ, ㅆ, ㆅ) were not ordinarily used to write Korean, but they were provided for in order to transcribe the “wholly muddy” sounds of the Chinese rime books. The following is a display of the Hunmin ch’ŏngŭm letters and the Chinese characters used to gloss them. The categories of classification are the conventional ones of Song Chinese philology:

<table>
<thead>
<tr>
<th>Molars</th>
<th>Linguals</th>
<th>Labials</th>
<th>Incisors</th>
<th>Laryngeals</th>
<th>Semi-lingual</th>
<th>Semi-incisor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wholly clear (全清)</td>
<td>(牙音) (舌音) (脣音) (齒音) (喉音) (半舌音) (半齒音)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partly clear (次清)</td>
<td>ᴺɪ ᴸɪ ᴷɪ ᴸɪ ᴷɪ ᴸɪ ᴺɪ</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wholly muddy (全濁)</td>
<td>[ㄲ] [ㄸ] [ㅃ] [ㅉ] [ㅆ] [ㆅ]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neither clear nor muddy (不清不濁)</td>
<td>ᴶɪ ᴶɪ ᴺɪ ᴺɪ ᴺɪ ᴺɪ</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5.2.1.1 Initial letter shapes

The rationale behind the letter shapes is detailed in the Hunmin ch’ŏngŭm haerye section entitled “Explanation of the design of the letters.” First, five

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2 Throughout this work, the translations of passages from the Hunmin ch’ŏngŭm are taken from Ledyard (1998).
“basic” letters were created. In each case, the shape of the basic letter was modeled on the articulatory organs used to pronounce the sound it represented:

The molar sound ㄱ [k] depicts the outline of the root of the tongue blocking the upper palate.
The lingual sound ㄴ [n] depicts the outline of the tongue touching the upper palate.
The labial sound ㅁ [m] depicts the outline of the mouth.
The incisor sound ㅅ [s] depicts the outline of the incisor.
The laryngeal sound ㅇ [∅] depicts the outline of the throat.

The five sounds represented by these basic letters were considered the “weakest” of the sounds pronounced at each position in the mouth.3

The remaining letters represent stronger sounds, which were derived by adding strokes to the basic shapes. Each added stroke makes the sound more “severe”:

The sound of ㅋ [kh] is a little more severe than that of ㄱ [k]; therefore a stroke is added.
ㄴ [n] then ㄷ [t]; ㄷ then ㅌ [th].
ㅁ [m] then ㅂ [p]; ㅂ then ㅍ [ph].
ㅅ [s] then ㅈ [c]; ㅈ then ㅊ [ch].
ㅇ [∅] then ㆆ [q]; ㆆ then ㅎ [h].

The consonants ㄹ [l] and ㅿ [z] fall outside this pattern, because the addition of strokes did not make them “more severe.” However, it was explained that: “The semi-lingual sound ㄹ [l] and the semi-incisor sound ㅿ [z] also depict the outlines of the tongue and the incisor [respectively], but the outlines are altered; in these cases there is no propriety for adding strokes.”

5.2.1.2 Initial letter usage
In the “Examples of the use of the letters” section, the Haerye shows each letter used in two native words. Thus, no examples are given there for the geminates (ㄲ, ㄸ, ㅃ, ㅉ, ㅆ, ㆅ), because those symbols were primarily intended for the transcription of Chinese. Moreover, as is explained elsewhere (using native words as illustrations), ㅆ (ss) and ㆅ (hh) represent the “combining of letters,” not unitary initials.

The laryngeal ㅇ [q] is also omitted from this section. That is because, like the geminates, the letter was created for the representation of Chinese character pronunciations. Throughout the reigns of Sejong and Sejo, there were only two ways in which this letter was used for anything else. The first was to

3 As can be seen, three of the “basic” sounds belonged to the “neither clear nor muddy” row. A salient exception was the “molar sound” ㄱ [k], which, the Haerye explains, was chosen as basic because the pronunciation of ㅇ [∅] was “too similar” to the laryngeal ㅇ [∅].
represent the prospective modifier -ulq/olq; e.g., hwolq (kes) 홀 것 ‘(something) to be done’; palo.1.0 kennesilq (cey) 바른 것을 건너싶 (제) ‘(at the time) they crossed the sea’ (Yongbi 18). The second, a usage found in the two texts Yongbi ᄋ朝鲜 ka and Hunmin chŏngǔm ᄆ oversee, was to replace the “genitive s” (사이 ᄂ ) in certain environments. In the Yongbi ᄋ朝鲜 ka, the letter was used to transcribe the “genitive s” when the morpheme followed a vowel and came before the word ptut ‘meaning, intent’; e.g., [SYEN KHWOW] q ptut 先考ohan ‘his deceased father’s will’ (12), hanolq ptut isini 前망 또디시니 ‘since it is heaven’s will’ (4). In the Hunmin chŏngǔm ᄆ oversee, the symbol was used after a vowel and before the Sino-Korean word CCO ‘character, letter’; e.g., KHWAY_q CCO 快 때 ᄀ 字풍 ‘the character KHWAY,’ NA q CCO 那.OrderByDescendingingElement[ ]字풍 ‘the character NA.’ This second usage can be found sporadically in a few later texts, as well.

Another letter, the so-called “light labial” [β], was added to the list of initials. The letter had been mentioned in the basic text and briefly described there as the symbol ᄀ written below the labial ᄂ to represent a “light sound,” but that was all that was said about it; the symbol was not actually shown. In this section, however, [β] is treated as an initial letter. Two examples of its usage are given, because, unlike ᄀ, it represented a Korean “initial sound,” not a Chinese one.

In the middle of the fifteenth century, the symbol ᄀ [ŋ] (with a little vertical mark on top of the circle) was often used as an initial letter, but gradually, as time went on, it fell into disuse. In texts from the middle of the sixteenth century, a few examples of the symbol can be found; after that, it disappears completely from the textual record.

5.2.1.3 Complex initials
Two or three initial letters could be written together, either as clusters or as geminates. As we have said, the geminates (ㄲ, ㄸ, ㅃ, ㅉ, ㅆ, ㆅ) were used primarily in the artificial readings of Chinese characters. In native words, they are sometimes found in medial position; for example, ma.ccoWi 마.BADKOREAN ’respectful meeting’ (Yongbi 95). Most commonly, however, a geminate spelling in a native string represents the doubling of an initial consonant after the prospective modifier -ulq/olq; for example, azoWol kka 아수沃尔까 ‘shall it be known?’ (Yongbi 43), swumwul kkum.k_i 수물 길기 ‘hole to hide’ (Wŏrin 2.51), pwol ttini 볼띠니 ‘since one will see’ (Wŏrin 8.38). (Notice that the ᄀ [q] of the prospective modifier is not written when the geminate spelling is used.) Otherwise, the geminates are not ordinarily found in native words.

4 These forms can also be found without the letter: hwol (kes) 홀 (것); …kennesil (cey) 건너싶 (제).
The exceptions are ㅆ (ss) and [++ (hh) – and to this can be added the curious geminate spelling ⓘ. The Haerye explains: “Initial letters can be used side by side with themselves: vernacular speech [i.e., native Korean] hye 씨 ‘tongue,’ but hhye 씨 ‘pull’; kwoyye 곤여 ‘loving someone,’ but kwogye 곤여 ‘being loved by someone’; and swota 소다 ‘turn something over,’ but ssota 쏘다 ‘shoot something.’”

Another unusual geminate, the double letter ㄴ (nn), can be found in the Hunmin chŏngŭm Ὠνhae: ta.nnona 닰니라 ‘[the tip of the tongue] touches [the upper teeth].’ But this spelling can only be considered an orthographic anomaly. The expected transcription would be *tan.nona 닰니라.

Beginning with the Wŏn’gak kyŏng Ὠnhae in 1465, initial geminates almost disappear from the textual record. Thus, in subsequent texts, words such as ssu- 쓴 ‘write,’ ssw- 쏴 ‘shoot,’ and hhye 씨 ‘pull’ are spelled su- 스-, sww- 스-, and hye 씨-. In other words, what we now know to have been a phonemic distinction between plain obstruents and reinforced obstruents was, for the most part, ignored in the orthography. In the sixteenth century the original distinctions were restored, and in texts from then on, the double-s spelling, ㅆ, is again found in word-initial position. But the double-h geminate CharCode was not revived; it was never used again.

Initial clusters were treated separately from geminates. The Haerye explains clusters this way: “As the initial sound, two or three letters may be used together and written side by side. For example, vernacular speech sta 쌈 ‘earth,’ pcak 푈 ‘one of a pair,’ and pskum 푌 ‘crack, opening.’” In texts of the Late Middle Korean period, the clusters sk-, sr-, sp-, pt-, ps-, pc-, pth-, psk-, pst- (시, sr, 승, pt, ps, pc, pth, psk, pst) are commonly found at the beginning of words. And, although extremely rare, there is also an anomalous sn- 삲 cluster; e.g., snahoy swoli kasnahoy swoli 삲소리 갓나히 소리 ‘a man’s sound, a woman’s sound’ (Sŏkpo 19.14), snahoy hyang kasnahoy hyang 삲향 갓나히 향 ‘a man’s scent, a woman’s scent.’ Finally, a transcription of a Jurchen place name in the Yongbi Ὠch’on ka contains a ‘chkh’ 쌧 cluster: Nin.chkhwesi 님처시 (Yongbi 7.23).

Besides clusters and geminates, there was yet another kind of complex symbol provided for in the Hunmin chŏngŭm. The main text explains: “[The laryngeal letter] 岁, written immediately below a labial sound, makes a light labial sound.” The Haerye elaborates: “‘, when written immediately below a labial sound, makes a light labial sound. This is because with the light sounds the lips join only momentarily and the pronunciation is more throatish.” These letters representing “light labial sounds” include the symbols Ṱ, ṽ, Ṵ, ṵ, but (as was mentioned in section 5.2.1.2, above) only Ṹ was used in writing native Korean words. The other “light labial” symbols were used exclusively for the transcription of Chinese.
5.2.2 *The medial sounds*

Eleven letters were created to represent medial sounds. As we have noted, what is called the “medial sound” was the syllable vocalism, a phonological concept new to fifteenth-century East Asia. And, unlike the initial sounds, which were equated to Chinese character mothers, medial sounds had no correlate in the Chinese phonological tradition. The *Haerye* provides this explanation: “The medial sounds are situated in the middle of the syllable rime, and combine with the initials and terminals to complete the syllable.”

The theory developed for the medials was therefore entirely new, but it was rationalized within the framework of neo-Confucian philosophy. It began with the creation of three basic letters, · ㅡ ㅣ, representing the three great powers of the universe. These were known as the “Three Germinants” (삼재):

Heaven, Earth, and Man:

With · [ʌ], the tongue retracts and the pronunciation is deep. Heaven commences in the First Epoch. The roundness of the outline is a depiction of Heaven.

With ㅡ [ɨ], the tongue retracts a little and the pronunciation is neither deep nor shallow. Earth opens in the Second Epoch. The flatness of the outline is a depiction of Earth.

With ㅣ [i], the tongue does not retract and the pronunciation is shallow. Man is born in the Third Epoch. The erectness of the outline is a depiction of Man.

The remaining eight of the eleven medial letters were made by combining the basic letters in various combinations. These composite symbols were rationalized with a similar mixture of articulatory description and philosophical symbolism:

・[o] is the same as · [ʌ], only the mouth is contracted. Its outline is formed by combining · with ㅡ. We take the appropriety of Heaven’s initial conjugation with Earth.

├ [a] is the same as · [ʌ], only the mouth is spread. Its outline is formed by combining ㅡ with ·. We take the appropriety of the operations of Heaven and Earth issuing forth from activities and things, but waiting for Man for their completion.

ㅡ[u] is the same as ㅡ [ɨ], only the mouth is contracted. Its outline is formed by combining ㅡ with ·. Here again we take the appropriety of Heaven’s initial conjugation with Earth.

・[e] is the same as ㅡ [ɨ], only the mouth is spread. Its outline is formed by combining ㅡ with ㅣ. Here too we take [the appropriety of] the operations of Heaven and Earth issuing forth from activities and things, but waiting for Man for their completion.

├ [a] is the same as ㅡ, only it arises from ㅣ.

├ [ya] is the same as ㅣ, only it arises from ㅏ.

ㅡ[yu] is the same as ㅡ, only it arises from ㅣ.

◄ [ya] is the same as ㆍ, only it arises from ㅣ.

As part of the neo-Confucian exegesis, the eight composite symbols are classified as “Yang” and “Yin”:...
In ᚁ, ᚎ, the circle is situated above and on the outside. This is because, emerging from Heaven, they are Yang.

In ᚎ, ᚁ, ᚁ, the circle is situated below and on the inside. This is because, emerging from Earth, they are Yin.

These “Yin” and “Yang” groupings constitute natural ones within the language, because they represent vowel harmony oppositions. The text continues, noting that “[i] alone has no station or number . . .,” apparently out of recognition that this vowel was the neutral member of the vowel harmony system.

5.2.3 Terminal sounds

An important orthographic decision is reflected in the representation of terminals. As we have said, terminals were identified with the initials, but the Haerye provides for a modified orthographic system in which only eight of the seventeen letters were to be used. Instead of making use of all the available symbols, the authors of the text decide that: “It will suffice to use [only] the eight letters ᗤ, ᑆ, ᗦ, ᗧ, ᗨ, ᗩ, ᗪ, ᗫ ᗥ [k, ṅ, t, n, p, m, s, l] for the terminal sounds.” The rationale for this statement is then immediately explained: “[In the case of terminals] like those in poys kwoc ᑡ [`pear blossom,’ and yez_uy kach ᑡ [`fox pelt,’ ᗩ [s] may stand for all of them. Therefore only ᗨ [s] is needed.”

In this passage, the compilers of the Haerye tell us that the contrasts between the dental sibilants /s, c, z, ch/ were neutralized in terminal position, and that these consonants were uniformly pronounced there as [s]. For the morphophonemic spellings poys kwoc ᑡ ‘pear blossom’ and yez_uy kach ᑡ ‘fox pelt,’ they recommend using the phonemic spellings poys kwos ᑡ and yes_uy kas ᑡ instead. In other words, these scholars of fifteenth-century Korea understood the difference between a morphophonic script and a phonemic script, and they deliberately chose to make theirs a phonemic one.

This orthographic rule of “eight final sounds” is followed strictly in the textual record of the fifteenth and sixteenth centuries. However, there are two important exceptions. In the Yongbi 弇’n ka (1447) numerous examples are found in which terminal sounds are written with ᗨ [z], ᗥ [c], ᗦ [ch], and ᗩ [ph]; e.g., az ᗥ ‘younger brother’ (stanzas 24, 103), kwoc ᑡ ‘flower’ (2), cwoch- ᗥ- ‘follow’ (36, 55, 78), niph ᗦ ‘leaf’ (84). This same, exceptional usage (including ᗨ [th] used as terminal) is also found in the Wŏrin ch’ŏn’-gang chi kok (1447); e.g., chez ᗦ ‘first’ (vol. 1, verse 114), nac ᗦ ‘daytime’ (1.16), noch ᗦ ‘face’ (1.49), pwuph ᗦ ‘drum’ (1.40), nath ᗦ ‘piece’ (1.40, 62, 91, 92). The early dates and importance of these two texts indicate that in those early years there was probably a scholarly controversy surrounding the
decision to use a strictly phonemic script.\(^5\) Nevertheless, the dispute was apparently soon resolved, for the phonemic rule governing terminal usage was adhered to conscientiously in all subsequent publications of the period. In many texts, the rule appears to be violated by the use of the symbol \(\triangle [z]\) as terminal. However, those particular examples constitute a special case, because in the phonological environments where it occurs, a terminal /z/ was not phonemically neutralized to /s/; the phonological conditioning governing this usage will be discussed later.

In the section explaining the combining of the letters, the *Haerye* provides for terminal clusters: “Two or three letters may be used together as the terminal sound. For example, vernacular speech *holk* ᴽ ᴰ ‘soil,’ *naks* ᴻ ᴹ ‘hook,’ and *tolks pstay* ᴹ ᴹ ᴹ ‘Hour of the Rooster (5–7 p.m.).’” When occurrences of the so-called “genitive *s*” (사 오타) are set aside, there are six different clusters found at the end of syllables in Late Middle Korean texts: ᴹ, ᴹ, ᴹ, ᴹ, ᴹ, ᴹ [ks, ns, lk, lm, lp, lq].

### 5.2.4 Combining the letters

Korean writing is both alphabetic and syllabic. As the *Haerye* explains, the letters are clustered into syllables:

The three sounds, the initial, the medial, and the terminal, combine to form the complete syllable. Some of the initial sounds stand above the medial sound; some stand to the left of the medial sound . . . Among the medial sounds, the round one and the horizontal ones stand below the initial sound; these are ˙[a], ː [i], ¶ [o], ¶ [u], ¶ [yo], and ¶ [yu] . . . The vertical ones stand at the right of the initial sound; these are 'url [i], ː [a], ː [ya], ː [ə], and ː [yə] . . . The terminal sounds stand below the initial and the medial.

In other words, shapes were determined by the positions the letters would occupy within the syllable. The letters may be alphabetic, but they were designed with syllabic writing as a precondition.

### 5.2.5 Tones

Tones are recorded in the alphabetic texts of the fifteenth and sixteenth centuries. The *Hunmin chōngu“um* provided a system of diacritics that Korean philologists call “side dots” (傍點) to mark the tone of each syllable, and the conventions of the system were followed more or less faithfully until the end of the Middle Korean period.

\(^5\) Nowhere in the textual record is there explicit mention of this controversy, but good historical and philological evidence does exist to support the idea that Sejong himself advocated the use of morphophonemic spelling (see Lee Ki-Moon 1997).
The side dots were placed on the left of the syllable. One dot indicates a high pitch. Two mark a long, rising pitch. No dots indicate that the pitch of the syllable was low.

The impetus for recording tones was undoubtedly connected to the importance placed on them in the Chinese phonological tradition, and Sejong and his commissioners made full use of Chinese terminology in their treatment. Here is how the side dot convention is described in the main text of the *Hunmin ch'ŏngǔm*: “One dot added to the left [of a syllable] indicates the departing tone. Two indicate the rising tone. If there are none, then it is the level tone. For the entering tone, the adding of dots is the same, while [the pronunciation] is hurried and tense.” The *Hunmin ch'ŏngǔm* description is couched in terms of the traditional four tones because these represented the departure point for any discussion having to do with suprasegmentals. Still, within the confines of the Chinese framework the *Hunmin ch'ŏngǔm* provided a marking convention that accurately represented the Korean data. The *Haerye* fleshes out the description and gives examples:

For the level, rising, departing, and entering tones of vernacular speech, there are the following examples: *hwal* 활 ‘bow, arc,’ in the even tone; *twŏl* 돌 ‘stone’ in the rising tone; *kâl* 갈 ‘knife, sword,’ in the departing tone; and *pwut* 붓 ‘writing brush,’ in the entering tone.

If at the left of any syllable one dot is added, it is a departing tone; if two dots, it is a rising tone; and if no dots, it is an even tone.

The entering tone of the literary is similar to the departing tone [of the vernacular]. The entering tone of the vernacular is not fixed. Sometimes it resembles the even tone, as in *kit* 길 ‘pillar’ or *nyep* 늘 ‘rib, flank’; sometimes it resembles the rising tone, as in *nât* 낫 ‘grain’ or *kip* 길 ‘silk gauze’; and sometimes it resembles the departing tone, as in *mwôt* 문 ‘nail’ or *îp* 입 ‘mouth.’ Adding dots is the same as for the even, rising, or departing.

As can be seen from this passage, the “entering tone” was a concept valid for Chinese vocabulary only. It had no significance for Korean. In the Chinese literary language, pitch distinctions were neutralized in syllables that ended in an unreleased voiceless stop, -p, -t, or -k, and in the Chinese phonological tradition, such syllables were therefore classified in a separate “tone” category called the “entering tone.” The *Haerye* description makes clear that, unlike Chinese, Korean syllables ending in stops were distinguished by pitch just as other syllable types were. Despite the use of Chinese terminology, the *Hunmin ch'ŏngǔm* does not distort the Korean facts or misrepresent the data.

5.2.6 Fifteenth-century orthography

Unlike most premodern scripts, fifteenth-century Hangul was highly standardized. Spellings and other types of symbol use are unusually consistent. And so, even though there is no historical record of such things, there had to
have been considerable discussion and debate surrounding the orthography to be adopted for the new script. Someone, somehow, solved the various problems surrounding the orthography and made decisions about it. The philological evidence from the texts themselves shows that orthographic rules were worked out in detail, and that these rules were followed carefully in almost all published materials throughout the period.

In discussing the terminal consonants, we have mentioned that the orthography of the fifteenth century was a phonemic one. In keeping with that principle, each phoneme was recorded faithfully, in context, without regard for morphemic or syntactic structure. Thus, morphophonemic alternations are reflected in how the words were written in context. For example, the noun *kaps* 값 ‘price, wage,’ which has a lexical, underlying form ending in a -ps cluster, appears with the subject particle *i* 이 as *kap.s.i* 값시, but with the focus particle *two* 두 as *kap_two* 값도. The shape of the verb stem *kiph-* 깊- ‘deep’ depended upon the inflectional ending attached to it, e.g., *kiphuni* 기프니, *kipkwo* 깊고. There was variation, of course. For example, *mitnun* 믿는 ‘believing’ (which consists of the verb stem plus the processive modifier *-nun*), was not written as *minnun* 믿는, even though nasal assimilation is normally expected in such forms. In fact, the textual record contains many alternates such as *ketne-* 걷니- and *kenne-* 건니- ‘cross over,’ *totni-* 둔니- and *tonni-* 둔니- ‘goes about,’ and so forth. These forms show that nasal assimilation existed in Late Middle Korean, but that it was not always transcribed.

The phonemic nature of the orthography affected how letters were clustered into syllables. For example, in isolation the final -*m* of the noun *salom* 사봄 ‘person’ was written as the terminal of the second syllable, just as it is today. However, when the noun was followed by a particle beginning with a vowel, liaison occurred and the -*m* moved over to become the onset of the following syllable. The orthography reflects this liaison; e.g., *salo.m_i* 사봄이, *salo.m ol* 사봄을. The inflection of the verb stem *mek-* 먹- ‘eat’ was written variously as *mek.ko* 먹고, *me.kuni* 먹그니, etc. Notice that this syllabic clustering contrasts with that of modern Hangul orthography, where the shape of the word is kept constant: *salam_i* 사람이, *mek.uni* 먹으니.

When the syllable boundary was not so clearly delineated, there could be alternative ways of spelling. One such case arose when a terminal -*s* was followed by a syllable beginning with *k, t, p,* or *s.* When that happened, the -*s* could remain as terminal, or be moved to the onset position of the next syllable and written as an *sC* cluster. Thus, fifteenth-century texts contain alternate spellings like *tas.ka* 닭가 ~ *tas.ka* 닭가 ‘cultivate, train,’ *eyes.pu*-어엿브- *eye.spu*- 어여بث ‘pitiful,’ etc. Another kind of spelling alternation can be found when the consonant -*ng- [ŋ]* appeared in intervocalic position. According to the original orthographic rules of the *Hunmin chôngum,* the consonant was supposed to be written as the initial of the following
syllable; thus, *pangwol* 바울 ‘drop,’ for example. But very soon, the orthographic practice of writing it as the terminal of the previous syllable came to be more common: *pang.wol* 방울.

Syllable clustering was also complicated somewhat by the mixing of Chinese characters into the text. Normally, for example, the subject marker *i* was written as an offglide /y/ when it followed a syllable ending in a vowel; e.g., *nay* 내 ‘I’; *kemunkwoy* 거문곳 ‘Korean harp.’ But if the syllable was represented by a Chinese character, the sound incorporated into the pronunciation of the syllable had to be written separately. The way such exceptions were handled is explained in the *Haerye*: “When the literary and the vernacular are mixed together, there are cases where, depending on the pronunciation of the character, there may be supplementation with medial or terminal sounds. For example, [KWONGCA]_i [LO]_s salom 孔子 | 魯 사름 ‘Confucius [was] a man of Lu.’”

One significant exception to the orthography’s use of the phonemic principle is its treatment of the so-called *sai-sios* 사이스, or “genitive s.” This “genitive s,” a particle used to link nouns, was by convention transcribed as *s*; e.g., *phul nip* 픐님 ‘blade of grass.’ However, two very early texts show that it was not always realized as /s/ phonemically. In the *Yongbi o˘ch’on ka* (1447), the genitive *s* was transcribed in a chameleon-like variety of ways. Before most obstruents it was written as the normative *s*. However, in voiced environments – that is, between vowels, laterals, and nasals – it was consistently written as a *z* (ㅿ); e.g., *nimkumz mozo.m_ı* 님 القومي ‘the king’s mind’ (39); *nalaz ilhwum* 나لازم 일환 ‘the nation’s name’ (85). Moreover, before the cluster *pt* (ㆁ), as well as once before *c* (ㅈ) and once before *s* (ㅅ), the *s* was omitted or replaced by another letter; e.g., [HYWENG]_k ptu.t_i 兄 뇽디 ‘older brother’s wish’ (8); *myes [KAN]_t ci.p_uy* 머예 지의 ‘in a house of how many rooms’ (110); *hanolq ptu.t_ul* 하늘 떼들 ‘the will of heaven’ (86).

The *Hunmin ch’ong’unhoe* shows the same kind of phonological pattern in its use of the genitive *s* to gloss Chinese characters: [ZYANG]_k [CCO] ›‘the character ZYANG’; [KWUN]_t [CCO] ›‘the character KWUN’; [CHIM]_p [CCO] ›‘the character CHIM’; [CCO]_q [CCO] ›‘the character CCO’; etc. As can be seen from these examples, the *s* was replaced by a stop homorganic with the preceding consonant, or, after /l/ or a vowel, by the glottal stop *q*. (See also section 5.2.1.2, above.) These replacements were evidently intended to show that the genitive *s* was realized as reinforcement of the following obstruent. In other words, if we take the transcriptions in these two texts at face value, the genitive *s* was alternatively realized as /s/, /z/, or reinforcement, depending upon the phonological environment. This transcription system was apparently too cumbersome to be used as a practical orthography, however, and, in other texts, the morpheme was instead written uniformly as *s*. The orthographic practice adopted in this case was morphophonemic.
5.2.7 The transcription of Sino-Korean

If we take Sejong at his word, the new symbols were devised explicitly to represent the sounds of Korean. In the preface to the *Hunmin chŏngŭm* he wrote:

> The sounds of our country’s language are different from those of the Middle Kingdom and are not smoothly adaptable to those of Chinese characters. Therefore, among the simple people, there are many who have something they wish to put into words but are never able to express their feelings. I am distressed by this, and have newly designed twenty-eight letters. I desire only that everyone practice them at their leisure and make them convenient for daily use.

But from the very beginning, the new letters were used to transcribe the readings of Chinese characters as well as to write native Korean words, and both are found together in the texts of the period. As we have said, these character readings do not represent natural Korean but rather the prescriptive pronunciations spelled out in detail in the *Tongguk chŏngun* of 1447.

In fact, the initial sounds given in the *Hunmin chŏngŭm* itself are illustrated solely by those prescriptive pronunciations of Chinese characters. In the *Hunmin chŏngŭm haerye* the king’s commissioners elaborate on these descriptions, explaining that: “The initial sounds of the [new writing system] are equivalent to the character mothers of the rime books.” Throughout the *Hunmin chŏngŭm*, the terminology Sejong and his commissioners used to classify the initial sounds are the same as those found in the *Tongguk chŏngun*; in both cases, the terms are those of traditional Chinese philology. In other words, the two orthographic systems are overlapping and related. The *Hunmin chŏngŭm* system of initial consonants was clearly connected to the categories of Chinese language science. It represents the Sinitic base upon which the Korean writing system is built, the departure point for Sejong’s analysis of Korean phonology.

The character readings in the *Tongguk chŏngun* dictionary of 1447 were certainly artificial. For example, among its initials the *Tongguk chŏngun* contains geminate consonants (ㄲ, ㄸ, ㅃ, ㅉ, ㅆ, ㆅ) to represent “wholly muddy” sounds, as well as a glottal stop (ㆆ) and a velar nasal (ㆃ). These were prescriptive pronunciations intended to “correct” the readings of Chinese characters then in use in Korea. Readings such as KKYWUW 펴 cmb ‘writhe,’ TTAM 훖 ‘vast,’ PPWO 步 뽜 ‘step,’ CCO 慈 씌 ‘compassion,’ HHWONG 洪 뎽 ‘flood,’ QUP 洩 쇼 ‘decant,’ NGEP 업 업 ‘profession’ were offered as substitutes for KYWU 규, TAM 담, PWO 보, HWONG 홍, UP 익, EP 업.

But these artificial pronunciations were not, strictly speaking, simply imitations of Chinese. The *Tongguk chŏngun* did not adopt, or reconstruct, the
system of the Chinese rime tables wholesale. For example, the traditional Song Chinese sources usually recognize 36 “character mothers” and 206 rimes, while the Tongguk chŏngun has only 23 character mothers and 91 rimes. The internal structure was also different. Among other things, while Chinese riming dictionaries are divided into separate volumes by tone, the Tongguk chŏngun grouped syllables differing only by tone together in one place. In other words, the Tongguk chŏngun system was a theoretical construct representing a compromise between the Chinese rime tables and dictionaries and the Sino-Korean readings actually used in Korea.

Still, because it did not reflect reality, the Tongguk chŏngun orthographic system could not be sustained. It did not last past the 1480s. The readings it mandated were transcribed scrupulously in the works published throughout the reigns of Sejong and Sejo, but during the reign of Sŏngjong these artificial conventions broke down. The Buddhist works published in the 1480s were the last to follow the prescriptive readings of the Tongguk chŏngun.

From this point on, the Tongguk chŏngun prescriptive system gave way to spellings based upon the way the characters were actually read. These natural Korean pronunciations were, and still are, called “Eastern Sounds” (東音). Since only the Tongguk chŏngun readings are found in the earliest texts, there is a question as to when these so-called “Eastern Sounds” were systematized. The Hunmong chahoe makes reference to a work called the Ch’ohak chahoe (‘Collection of Characters for Elementary Studies’ 初學字會) compiled in 1459 that, though no longer extant, was apparently put together using the “Eastern Sound” orthography. If so, it means the transcription of actual Sino-Korean pronunciations can be traced back to the reign of Sejo. This more authentic orthography came into general use during the reign of Prince Yŏnsan at the end of the fifteenth century, when it was employed for such representative works as the Buddhist translations, Yukcho pŏppodan kyŏng ŏnhae and Sisik kwŏn’gong ŏnhae of 1496. By the sixteenth century all Korean-language publications made use of these more natural spellings. A representative work from this latter orthographic period is the Hunmong chahoe, a glossary providing our most important source of Sino-Korean pronunciations during the Late Middle Korean period.

5.3 Phonology

Phonological analysis of Late Middle Korean begins with the Hunmin chŏngŭm system, supplemented and emended by linguistic and philological data from the textual record of the fifteenth and sixteenth centuries. It is constrained and shaped by information from later recorded stages of the language and the modern dialects.
5.3.1 Consonants

The consonant system of Late Middle Korean was as follows:

<table>
<thead>
<tr>
<th>Late Middle Korean consonants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plain: p t k c s h</td>
</tr>
<tr>
<td>Aspirated: ph th kh ch</td>
</tr>
<tr>
<td>Reinforced: [pp tt kk (cc)] ss hh</td>
</tr>
<tr>
<td>Voiced: W G z</td>
</tr>
<tr>
<td>Nasal: m n ng</td>
</tr>
<tr>
<td>Liquid: l</td>
</tr>
</tbody>
</table>

5.3.1.1 Aspiration

In Late Middle Korean there was a primary distinction between a series of “plain” consonants /p, t, k, c/ and a series of aspirated consonants /ph, th, kh, ch/. A separate symbol was created for each of these eight consonants and illustrated with examples. However, aspirated consonants occurred far less often than plain consonants, particularly in word-initial position. The consonant kh was especially rare; ph was the next least common. Over time, words with aspirated initials began to increase in number. For example, as early as the fifteenth century polh 셉 ‘arm’ became phol 폹; in the latter half of the sixteenth century kwoh 꼽 ‘nose’ developed into khwo 코, kahl 갈 ‘knife’ into khal 칼. But the imbalance between aspirates and plain consonants remained. In medial position, the glottal fricative h combined with plain consonants, often by metathesis, to produce aspirates – just as it does in the language today. It is especially common to find contracted forms of the verb ho- ‘is, do’ showing this process. For example, hota 힌타 was often written as tha 타; hokuy 흑기, hokey 흑계, and hokwo 흑고 all appear alternatively as khuy 케, khey 케, and khwo 쿼: kulithangita 그리타이다, [KWANGMYENG]_i wonols nal [HYEN] thas ma.l ila 꾸민이 오年下半年 現 탓따리라, [PHYENAN]_khuy 便安’e, [LIIK] key khwocye hoya 利益계저 흉야, and so forth.

5.3.1.2 Reinforcement

In Contemporary Korean, the consonants written as geminates (ㄲ, ㄸ, ㅃ, ㅉ, ㅆ) are pronounced with a tense, unaspirated articulation referred to here as “reinforcement.” These sounds also existed in Late Middle Korean, but reinforced consonants did not yet form a phonemically distinct series. As was noted in section 5.2.1.2, the Hunmin chŏngŭm does not provide symbols for such consonants in native words, and the geminate spellings used today for reinforced consonants were introduced there as a convention to transcribe the “wholly muddy” sounds of the Chinese rime books. Only 쾽
Reinforcement regularly occurred in medial position. It was a demonstrably productive process in Late Middle Korean. As was noted in section 5.2.1.2, an initial obstruent was often written as a double consonant following the prospective modifier -ulq/olq; e.g., kwum.k_i 흉기 ‘hole (as subject)’ but swumwul kkwum.k_i 수물 흉기 ‘hole to hide in’ (1459 Wŏrin sŏkpo 2:51a). The geminate spelling indicated that the consonant was reinforced, just as it is in the language today. Another important source of reinforcement was the ubiquitous “genitive s.” As described in section 5.2.6, above, this linking particle was sometimes replaced by a stop homorganic with the preceding consonant, or, after /l/ or a vowel, by a glottal stop. In the 1447 Yongbi ḍch’ŏn ka and the Hunmin chŏngŭm ŏnhae, this replacement took place when the “genitive s” was followed by a word beginning with -s-, c-, or the cluster pt-. But replacement is occasionally found in other texts as well; e.g., CYWONG-CYWONG k kwos 종종종 종 곳 ‘all kinds of flowers’ (1447 Sekpo sangjŏl 9:22b); salom_p seli_’la 사물 서리라 ‘it is in the midst of people’ (1459 Wŏrin sŏkpo 1:19b). Such transcriptions provide evidence that the morpheme was realized in these environments as reinforcement. In other words, a cluster of two obstruents automatically induced a tensing in the pronunciation of the second consonant, giving rise to what is here called reinforcement; e.g., s + k- → skk. If the first obstruent was s, the sibilancy was suppressed in some environments. In the Yongbi ḍch’ŏn ka and the Hunmin chŏngŭm ŏnhae, the suppression of the [s] was limited to occurrences before c-. But the 1447 Sekpo sangjŏl shows that sibilancy was apparently suppressed in some cases before k- as well – that is, if the above cited example is taken at face value. Another example from the same text, CYWONG-CYWONG k HYANG 종종종 종 종향 ‘all kinds of incense’ (9:22b), shows replacement of /s/ before h-. A parallel phrase from the 1459 Wŏrin sŏkpo, CYWONG-CYWONG k

6 The 1447 Tongguk chŏngun states unequivocally that “muddy” sounds did in fact occur in Korean. What “muddy” originally indicated in Chinese does not come into question, since the feature, usually interpreted as voicing, had been historically lost in any variety of Chinese that could have been heard by fifteenth-century Koreans. What was meant by “muddy” in these Korean works could therefore only have been a feature (reinforcement, glottalization, or tensity) found in the Korean language. The statement in the Tongguk chŏngun about this phonological feature comes from the Introduction, where it is said that: “The differentiation of ‘clear’ and ‘muddy’ in the sounds of our language is no different from that of China; it is only the sounds of characters that are without ‘muddy’ sounds …” In other words, native Korean words did in fact have reinforced sounds, but the Korean readings of characters did not. Note that even today Sino-Korean morphemes do not, with few exceptions, have reinforced initials.

7 Replacement before pt- was redundant, as is shown by the fact that there are also cases where the s was simply not transcribed at all before that cluster. Replacement before the homorganic s- was equally vacuous.
The reinforced consonant **cc** (ㅉ), however, never occurred in initial position. It is found only in word-medial position, in such morphemically complex forms as **ma.ccoWi** 마 addButton, **yen.ccopkwo** 연복지, and **cwo.ccowa** 조죽와, in which the verb stems **mac-** 'meet,' **yenc-** 'place,' and **cwoch-** 'chase' are combined with the deferential verbal suffix **-sop-(炷W-)- Stanton.** The noun **nwun.ccozo** 눈Numero 'the pupil of the eye' (which was also transcribed variously as **nwunt.cozo** 눈문로, **nwun.s.cozo** 눈문로, and **nwun.cozo** 눈문로) is a compound consisting of **nwun 눈** 'eye,' the "genitive s," and **cozo** 'nucleus, core, kernel.' No native word in Late Middle Korean is transcribed with either an initial *cc-* or an initial *sc-.*

The reinforced sibilant **hh** (ㆅ), which does not exist in Korean today, occurred only in the stem of the verb **hhye-** 'pull.' This morpheme is also found in compounds such as **spa.hhye-** 'extract,' **nilu.hhye-** 'raise up,' **twolo.hhye-** 'turn one’s head,' and **twulu.hhye-** 'turn around.' Beginning with the 1465 **Wŏn’gak kyŏng ŏnhae** when geminate spellings were eliminated from the orthography, **hh (ㆅ)** was replaced by a simple **h (ㅎ).** In the sixteenth century the geminate spelling **ss** (ㅆ) was restored, but the double-**h** spelling was not. However, in the seventeenth century the morpheme ‘pull’ was spelled with an initial **sh-** (ᄯ), showing that the consonant was at that time still pronounced with reinforcement.

Late Middle Korean texts also contain another geminate spelling, the curious double-zero ** Forg** (as noted in **section 5.2.1.3, above**). This symbol is found in medial position in compound verbs consisting of a stem ending in **-Vy** plus the passive (or causative) morpheme; for example, **kwoyOOye** 리[object] 'being loved by someone,' **moyOOi.nonila** 믿[object] 는 니라 'is bound to, by.' Since the single circle ** Forg** (without a tick on top) represented zero in syllable-initial position, there was no consonant to be reinforced. The most likely possibility is that the doubling was a way of indicating that the causative/passive morpheme began with a voiced velar fricative **γ** (transcribed in this work as **G**).
5.3.1.3 Initial clusters

Three kinds of consonant clusters are found at the beginning of words in Late Middle Korean texts: (1) clusters that begin with s-; (2) clusters that begin with p-; and (3) clusters that begin with ps-. The *Haerye* illustrates the three types succinctly with the examples *sta* ‘earth,’ *pcak* ‘one of a pair,’ and *pskum* ‘crack, opening’ (See section 5.2.1.3, above). There are nine of these clusters:

(1) sp- st- sk-
(2) pt- pth- ps- pc-
(3) pst- psk-

Here are examples of each:

(1) *spul* ‘horn’; *stek* ‘rice cake’; *skwum* ‘dream’
(2) *ptut* ‘intent’; *ptho-* ‘pluck’; *psol* ‘rice’; *pcak* ‘one of a pair’
(3) *pstay* ‘time’; *pskwul* ‘honey’

These initial clusters are believed to have developed in Early Middle Korean, sometime after the twelfth century, through the syncope of vowels separating the consonants. The word *psol* ‘(uncooked) rice’ was transcribed in the Chinese glossary *Jìlín lèishi* (c. 1103) with the two phonograms 菩薩, the first of which began with a labial stop, indicating that the form of the word was then *posol*. In the pharmacological work *Tongū pogam* (東醫寶鑑 湯液篇), which was compiled at the end of the sixteenth century and published in 1613, the medicinal herb *wotwoktwoki* ‘arbor monkshood’ was transcribed as *wotwok.ptwoki* 오독기 (3:19). In the earlier, Koryŏ-period pharmacological guide *Hyangyak kugūppang*, the word was transcribed with phonograms in two ways, as 五得浮得 and 烏得夫得, both of which point toward a reconstruction like *wotwokputuk*, with a vowel between the *p* and the *t*. Since the *Hyangyak kugūppang* was compiled around 1250, the syncope of the vowel must have taken place some time after that.

Most words beginning with *pst- or psk-* appear to have morphemically complex etymologies. If vowels indeed once separated the consonants in these clusters, the earlier forms of the words consisted of three or more syllables, too long to be single morphemes. (As a rule, Korean morphemes do not exceed two syllables in length.) Many of these words form a semantic word family having to do with breaking, cracking, piercing, etc. Here are examples: *pskay-* ‘break’; *pskete-* ‘collapse, fall in’; *pskey-* ‘thread, stick through’; *psko-* ‘peel (a shell, etc.), hatch’; *pski-* ‘stick in’; *pskul* ‘chisel’; *pskum* ‘crack, interstice’; *psto.li* ‘break, shatter’; *psilG-* ‘pierce, gore, stick, poke.’ Because of their phonological shape and meaning, such words appear to be compounds containing the (pre)verb *pozo-* ~ *poso-* ~ *pozG-* ~ *posG-* ‘break,
shatter.’ (Notice, for example, that psilG~pstilo- 넹 - is an intensive variant
of tilG~tilo- 넳 - ‘hit, stick in.’) Another word family consists of psku~pski
~pskuy 볼~빛~빛 ‘time, occasion’ and pstay 빛 ‘time, occasion.’ A few
words, such as pskwul ‘honey,’ pskwu- ‘borrow,’ and pstul ‘smallpox,’ have
more opaque etymologies. Whatever the origin, however, words with these
initial clusters remain lexical anomalies.

Initial clusters became reinforced consonants in Contemporary Korean, and
the reinforcement is usually all that remains to show there was an earlier
cluster. However, in a few pC- and psC- clusters, the labial stop left a trace.
For example, a p is seen today in such compounds as cwop-ssal 좁쌀 ‘hulled
millet’ (cwo ‘millet’ + ssal ‘rice’), chap-ssal 찥쌀 ‘glutinous rice’ (< chal-
‘sticky’), and hayp-ssal 헵쌀 ‘new rice’ (< hay ‘year’). This p is written as if
it belonged to the first noun, but it was originally part of the initial cluster of
psol 볼 ‘rice.’ Similarly, the p in pyep-ssi 빛씨 ‘rice seed’ (pye ‘rice plant’ +
ssi ‘seed’) shows that ssi 씨 comes from psi 扁. The form ip-ccak 입짝 ‘this
side,’ often heard in Kangwŏn and Kyŏnggi dialect usage, confirms that
ccak 락 ‘side’ was once pcak 밧. The forms ipttay 입때 ‘(until) that time’
(i ‘this’ + ttay ‘time’) and cepttay 접때 ‘that time’ (ce ‘that’ + ttay ‘time’)
preserve the earlier p- in pstay 빛 ‘time, occasion.’ The Contemporary Korean
word hamkkey 함께 ‘together’ is derived from fifteenth-century hon pskuy
보고 ‘at one and the same time.’ In sixteenth-century texts, the form is
attested as hom skuy 보고 (1518 Pŏnyŏk sohak 10:6), showing that the n in
hon changed to m as the result of assimilation to the labial in pskuy 보 ‘time.’

Reinforcement is the only trace that remains of the s- in Late Middle
Korean clusters, however. There is no known evidence left in Korean today
to show that sC clusters ever contained a sibilant. There is also very little
historical evidence from before Late Middle Korean. For these reasons,
the authenticity of the s- in some of the clusters is open to question. As we
have said, the historical change of clusters into reinforced consonants was
already under way in the Late Middle Korean period, and for some scribes the
s- may well have been used simply to mark reinforcement, as it habitually was
a few decades later.8 As has been noted, the Koryŏ-period form of the word
stol 볼 ‘daughter’ must be reconstructed as *potol, since it is transcribed in the
Jtín lēishi with the phonograms 寶姐, the first of which was clearly meant
to represent a labial stop, not an s-. Yet, the word is written only as stol 볼 in
Late Middle Korean texts, beginning with the Yongbi ोch’ŏn ka. It may well
be that the word was actually pronounced with an initial s- in the fifteenth
century, and that it simply represents an irregular development of a pt- cluster.

8 This “thick s” (unakan) convention was the rule in the late traditional period; 쭈, 쭈, 쭈 (sk-, st-, sp-)
can be found in place of 킷, 쭈, 쭈 (kk-, tt-, pp-) even in texts written in the early
twentieth century.
But, at the very least, the *Jilin leishi* transcription brings the etymological identity of such clusters into question.

It is also the case that some of the reinforced consonants found in Contemporary Korean do not go back to clusters. Reinforcement of a plain consonant has been used in Korean for centuries as an emotive device to add emphasis to a word, and over time the more forceful, reinforced pronunciations have tended to displace the original pronunciations. In Late Middle Korean, these emphatic variants were transcribed as $sC$ clusters. For example, the verb *kuz* (G) - 느슨- ~ 늘- ‘drag’ is recorded as *skuzu*- 느슨- in a number of fifteenth-century texts; e.g., *skuzul ssi la 쓸سل 살라* (1463 Pŏwha kyŏng ŏnhae 7:91), *skuzetaka 쓸택다가* (1481 Tusi ŏnhae 8:66). The verb forms *pipuy*- ‘rub’ and *twutuli*- ‘beat’ coexisted with *spipuy* and *stwutuli*. The verbs *tih*- ‘pound’ and *pih*- ‘scatter (seed), sprinkle’ are found in the earliest Hangul texts, but the variants *stih* and *spih* appeared soon after, in texts such as *Kugûppang ŏnhae* (c. 1466). In the sixteenth century this emphatic vocabulary began to spread more widely through the lexicon; for example, the 1527 *Hunmong chahoe* contains the forms *ssip*- 씹- ‘chew,’ *spwupuyl* - 쳐- ‘rub,’ and (in the first edition only) *ssus*- 썩- ‘wash’; the 1542 *Punmun onyŏk ihae pang* has *skulh*- 불- ‘boil,’ *ssahol*- 살- ‘chop,’ etc.

There were also other sources of reinforcement. A few words came to have initial reinforced consonants because they frequently occurred in non-initial position after an obstruent, usually the genitive $s$. Such words include the noun *kocang 장* (< *koz* ‘brink’) ‘end, most, many,’ which was used together with the genitive $s$ as a delimiting particle, *skocang 쌈장* ‘until, to that extent.’ That word was the precursor of *skoci 지*, which in turn became the modern particle *kkaci 까지*. The honorific dative particle *skuy 싸며*, from which modern *kkey 개며* is derived, is another postposition formed with the genitive $s$, as is *stolom 쌈越来 ‘just, only,’ the source of modern *ttalum 따름*. The words *kwoc 꽃 ‘flower’ and *pwulhwuy 불휘 ‘root’ occurred frequently with the genitive $s$ in plant names, e.g., *poys kwoc 과일 꽃 ‘pear blossom’ (1446 Hunmin chŏngŭm) and *nomol spwulhuy 묘물회 ‘herb roots’ (1587 Sohak ŏnhae 6:133), and the usage eventually produced reinforcement in the initials of the isolated words as well.

For the most part, the textual spellings of the fifteenth century have to be taken at face value. The authors of the *Haerye* obviously intended $sC$ clusters to be treated in the same way as $pC$ clusters (see section 5.2.1.3, above); at least some of the time, they must have heard the sibilancy of an $s$.

9 The process is still going on today; for example, *ccokkum* ‘a little’ is a smaller amount than *cokum*, *kkam* ‘wash’ is more serious cleaning than *kam*, and *sssey* ‘strong’ represents something more powerful than *sey*. A *kkochwu* is a spicier ‘chili pepper’ than a *kochwu*.
(see section 5.2.1.3) surely intended the s- to be taken as s-; the same word is attested later as sonahoy .sonahoy after all. But the suppression of the s-, as well as the loss of p-, was a complex process that took place over a long period of time, and the balance between cluster and reinforced consonant probably varied greatly from speaker to speaker.

The change of sC clusters into reinforced consonants is generally believed to have taken place in the sixteenth century. At the latest, the process must have been complete by the time sC clusters and pC clusters began to be confused; mistakes of that kind can be seen in the 1632 reprint of the Tusi ŏnhae, where, for example, the word ptut 훗 ‘meaning, intent’ is repeatedly transcribed as stut 훗. Still, as we have said, reinforced variants of the clusters are found even in the earliest fifteenth-century texts.

By the middle of the fifteenth century, the p- in psk- clusters had dropped in some people’s speech. Even in the earliest Hangul texts there is variation between psk- and sk-, and both pronunciations must have coexisted throughout the fifteenth and sixteenth centuries. For example, ‘collapse’ is written psketi- 훗디- in the Nüngōm kyŏng of 1461, but as sketi- 헐디- in the Yongbi ḏŏch’on ka of 1447. The sixteenth-century glossary Hunmong chahoe (1527) transcribes skwul 훗 instead of pskwul 훗 ‘honey,’ and skum 퐩 instead of pskum 퐩 ‘crack, interstice.’ But the same text also shows the opposite, more conservative tendency, giving pskul 퐩 ‘chisel’ instead of skul 퐩, a form which is attested in the 1459 Wŏrin sŏkpo (21:45). By the seventeenth century, reinforcement was probably all that remained of these clusters. In the 1617 Tongguk sinsok samgang haengsil, the verb psketi- 훗디- ‘collapse’ is written alternatively not only as sketi- 헐디-, but also as pketi- 헐디-.; pskwuli 퐲리- ~ skwuli 퐲리- ‘wrap up’ is written as pkwuli 퐲리-. What all of these transcriptions represented was surely the reinforced consonant /kk/.

The cluster pst- is not confused with st- in texts written during the fifteenth and sixteenth centuries, and it was the seventeenth century before it was transcribed as pt-. Just why there is this textual difference between psk- and pst- is difficult to explain. Still, it seems unlikely that pst- clusters had not begun to change into reinforced consonants at around the same time that psk- clusters did.

Reduction of the clusters pt- and ps- took place around the middle of the seventeenth century. In the 1632 reprint of the Tusi ŏnhae, the word ptut 훗 ‘meaning, intent’ is often transcribed as stut 훗, and in texts from the latter half of the seventeenth century pt- and ps- are regularly confused with st- and ss-. In the Ch’ŏphae sinŏ of 1676, ‘leave, depart’ is written both as ptenasye 훗나셔 (5:3) and stenasye 헐나셔 (5:11) (the verb is a compound of ptu- ‘float, leave’ and na- ‘go out, come out’). The mistaken transcription pse 훗 (1:9) as the infinitive of ssu- 쓰 ‘write’ can be found in the same source. The Pak T’ŏngsa text of 1677 records ‘use’ as psukwo 훗고 (3:28) and the
nominalization of the verb as ssun.i 쓰임 (2:2); the same text contains pswuk 쓰 ‘wormwood’ (1:35) and ssuwuk 쓰 ‘id.’ (1:35), ptu- 쓰- ‘cauterize with moxa’ (1:35) and stu- 쓰- ‘id.’ (1:35). The earliest example of sc- can be found in the 1676 Ch’o˘phae sinŏ, but by the eighteenth century, pc- had generally been replaced by sc-. For example, in the Waeŏ yuhae (early eighteenth century), pcwoch 쓰- ‘drive out’ was written as scwoch 쓰-(1:29), and pcak 쓰- ‘one of a pair’ as scak 쓰(2:33).

There are a few cases of clusters developing into aspirates. In the fifteenth century, ptelp- 쓰- ‘astringent’ was occasionally transcribed as pthelWun 쓰(1447 Sŏkpo sangjol 19:20); ptel- 쓰- ‘shake’ as pthelusya 쓰(1461 Nŭngŏm kyŏngŏnhae 2:29); and ptut- 쓰- ‘pluck out’ as pthutkwo 쓰(1459 Wŏrin sŏkpo 10:24). Today, in many Kyŏngsang dialects, ‘astringent’ has the form thelp-; and in a few places in Kyŏngsang (e.g., Chinju), ‘shake’ has the form thel-; and in a few places in Kyŏngsang (e.g., Chinju), ‘one of a pair’ has the form chak-; and in a few places in Kyŏngsang (e.g., Chinju), ‘pluck out’ has the form thut-; and in a few places in Kyŏngsang (e.g., Chinju), ‘cut open’ has the form pcoy-. In the Cheju dialect, /th/ and /ch/ are the regular reflexes of Middle Korean pt- and pc-. For example, pto- 쓰- ‘pluck, pick’ is thʌ-; ptel- 쓰- ‘shake’ is thel-; pteleti 쓰- ‘fall’ is theleci-; ptu- 쓰- ‘open (eyes),’ thu-; ptalki 쓰 ‘strawberry,’ thʌl; ptwuy 쓰- ‘run,’ thwi 쓰 ‘raft,’ they- [tʰe]; ptoy 쓰 ‘grime,’ thay [tʰe]; ptolwo 쓰- ‘separately,’ thʌlo; ptut- 쓰- ‘pluck out,’ thu-; pcwoy 쓰- ‘warm (over a fire),’ cho-; pcak 쓰 ‘one of a pair,’ chak; pcoy 쓰- ‘cut open,’ chay-; pco- 쓰- ‘weave,’ chʌ-; pcoy 쓰- ‘squeeze out,’ chʌ-.

The p- in the aspirated cluster pth- dropped after the Late Middle Korean period, leaving only th- as the initial. This simplification is believed to have taken place in the seventeenth century; in texts from the eighteenth century, pth- regularly appears as th-.

5.3.1.4 Medial clusters
Clusters of two consonants were common in medial position between vowels. There were also clusters of three consonants in case the first consonant was /l/, or a nasal plus an sC cluster. When a consonant followed the stem of a verb ending in two consonants, the final consonant of the stem dropped. For example, if the stem of the verb task- 쓰- ‘cultivate, train’ was followed by the infinitive ending -a, the resulting form was tas.ka 쓰가; but if the stem was followed by the ending -ti, the k dropped and the word was written tas.ti 쓰디. In texts of the fifteenth and sixteenth centuries, the stem of the verb ‘overflow’ was transcribed variously as nem.psti- 넘쓰(1461 Nŭngŏm kyŏngŏnhae 8:101), nems.ti- 넘디(1459 Wŏrin sŏkpo 2:48), or nem.sti- 넘치(1461 Nŭngŏm kyŏngŏnhae 9:54; 1527 Hunmong chahoe 3:11). Whether the p- was excrescent or an artifact of the orthography is unclear; in any case, there was no phonemic difference between the three forms. In texts from the middle of the fifteenth century, the phrase hon pskuy 쓰 appears in the meaning of ‘at one and the same time,’ but by the beginning of the sixteenth
In the middle of the fifteenth century Korean had a series of voiced fricatives, /W, z, G/. The distribution of these obstruents was extremely restricted, and all three soon disappeared from the language.

\( W (\ Canter ) \) The consonant \( W (\ Canter ) \) was a voiced bilabial fricative [\( \beta \)]. That the consonant was a labial follows from the fact that it alternated morphophonemically with /p/; that it was voiced can be deduced from the fact that it appeared only in voiced environments. Labiality and voicing, as well as the fact that the consonant was a fricative, are phonetic values also supported by the explanation given in the Hunmin ch'ongu haerye, where, in the “Explanation of the design of the letters,” the symbol \( \ Canter \) is said to represent a “light labial sound.” The text continues, explaining that “the lips join only momentarily, and the pronunciation is more throatish [than p].”

A reflex of \( W \) in some modern, peripheral dialects is /p/, which, because the environment is voiced, is always realized as [b]. For example, corresponding to Middle Korean \( saWi \) 사비 ‘shrimp’ is Kyŏngsang [s\( \text{\text{	ext{"e\}}} \)bi]; the South Hamgyŏng reflex of \( chiWe \) 치벼 ‘cold’ is [\( \text{\text{\text{"c\}}} \)iba]. These forms suggest that [\( \beta \)] represents the lenition of an earlier [\( *b \)], and that the change was originally restricted to the central region.

The consonant \( W \) appeared in the following phonological environments: (1) \( V_V \); (2) \( y_V \); (3) \( l_V \); (4) \( z_V \). Unlike \( z \), \( W \) was never transcribed in word-initial position.

Most occurrences of \( W \) are found between vowels. The Hunmin ch'ongu haerye gives examples of this type of environment, (1) “\( W (\ Canter ) \), as in saWi 사비 ‘shrimp,’ and tuWuy 드 dụ ‘rounded-out gourd.’” Here are examples of the consonant in the other environments: (2) \( tayWem \) 대俺 ‘big tiger’ (1447 Yongbi \\( \text{\text{"o\}}} \)ch’\( \text{\text{"o\}}} \)n ka 87), \( tayWat \) 대반 ‘bamboo field’ (1447 Yongbi \\( \text{\text{"o\}}} \)ch’\( \text{\text{"o\}}} \)n ka 5:26); (3) \( kulWal \) 글abal ‘letter’ (1447 Yongbi \\( \text{\text{"o\}}} \)ch’\( \text{\text{"o\}}} \)n ka 26), \( malWam \) 말слав ‘water chestnut’ (1459 Wŏrin sŏkpo 21:80); (4) \( wuzWu \) 옹entifier ‘funny.’

Evidence bearing on the phonemic status of this consonant is difficult to find in the pre-alphabetic records. The twelfth-century Chinese glossary Jilin lēishi gives phonogram readings for five words that later contained an occurrence of \( W \). These indicate that there was a labial in the words but give no
indication that the consonant was then distinct from *p. The Chinese transcriptions found in the Cháoxiàn–guǎn yìyǔ (c. 1400) are no different. There are nine that bear on this question:

<table>
<thead>
<tr>
<th>Gloss</th>
<th>Transcription</th>
<th>Late Middle Korean form</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) 月‘(moon) goes down’</td>
<td>(得)吉卜格大</td>
<td>(tol) kiwulGeta</td>
</tr>
<tr>
<td>(b) 江‘(river) middle’</td>
<td>(把)索懸得</td>
<td>(pala) kawontay</td>
</tr>
<tr>
<td>(c) 險舍 ‘neighbor’</td>
<td>以木(直)</td>
<td>iwus (cip)</td>
</tr>
<tr>
<td>(d) 蝦蟹 (and crab)</td>
<td>酒必(格以)</td>
<td>saWi (key)</td>
</tr>
<tr>
<td>(e) 妹 ‘younger sister’</td>
<td>娜必</td>
<td>nwwuy, nwwuwu, 누의, 누위</td>
</tr>
<tr>
<td>(f) 酒 ‘wine, beer’</td>
<td>數本</td>
<td>swul, swuwul 술, 수율, 수율</td>
</tr>
<tr>
<td>(g) 熱酒 ‘warm wine’</td>
<td>得本數本</td>
<td>teWun swul</td>
</tr>
<tr>
<td>(h) 二‘two’</td>
<td>都卜二</td>
<td>twul, twuul 도, 두울</td>
</tr>
<tr>
<td>(i) 瘦‘thin’</td>
<td>耶必大</td>
<td>yewuya 여위다</td>
</tr>
</tbody>
</table>

Note: These reconstructed forms are supported by modern dialect evidence.

The phonograms used in the above to transcribe this labial, 卜, 噴, 本, and 必, were also used to transcribe the consonant that became /p/ in Late Middle Korean (for example, pyelwo 비로 ‘inkstone’ was written 必路), and from this fact one might conclude that around 1400 there was no distinction between /p/ and /W/ in Korean. But it seems highly unlikely that that was the case, since soon thereafter all these words apparently did contain a /W/. The lack of a graphic distinction is much more probably to be attributed to the crudeness of the transcription instrument, Chinese phonograms, which seldom reflect anything more than gross phonetic differences. Similar reasoning can be used about the Jilin lèishi phonograms as well. Pre-alphabetic transcriptions do not provide evidence of a phonemic distinction, but they do not conclusively disprove it, either.

However, some occurrences of W in Late Middle Korean can be shown to have lenited from an earlier *p. These known cases of lenition all come from compounds. The following examples are classified by the phonological environments given above:

(1) V_V: Demonstrable cases of lenition between vowels are fairly rare. One that has been clearly established, however, is phywoem, phwowem 표염, 표봄 ‘leopard, panther’ (1527 Hunmong chahoe 1:9,18). This form is a compound of Sino-Korean phywo 豹 ‘leopard’ and pem 벌 ‘tiger’ (and in Early Modern Korean the word was restored to phywopem 표범). The noun koloWi 뜫狸 ‘drizzle, fine rain’ is a compound of kolo 뜫 ‘fog, mist’ and pi 비 ‘rain.’ Another example that has often been cited is howak 효악, 효악 ‘mortar,’ which appears to be derived from *hopak, but the etymology is uncertain.

Intervocalic lenition may also have occurred in the stems of certain irregular verbs. These verbs, which include, for example, nwup-~nwuW- 돕-~뜸- ‘lie down’ and twop-~twoW- 돕-~뜸- ‘help,’ have predictable stem shapes,
/p/ appearing before consonants and /W/ before vowels: nwupkwo, nwuWe 놀고, 누벼; twopkwo, twoWa 놀고, 도바. The problem with treating these alternations as the result of lenition is that the -p in other verb stems, such as cap- 잡- ‘catch,’ does not alternate with -W: capa 자바. If lenition produced the p～W alternations found in the irregular verbs, it remains to be explained why the -p in these other verbs did not lenite. (Proposed solutions to these and other problems in the irregular verbs will be discussed below.)

(2) y_V: The nouns tayWem 대범 ‘big tiger’ and tayWat 대밭 ‘bamboo field’ are compounds of pem 벼 ‘tiger’ and pat 받 ‘field.’ The verb stem meyWas 멘밥- ‘remove clothing from one shoulder (as a sign of respect)’ is a compound of mey- 멘- ‘carry on the shoulder’ and pas- 밥- ‘take off (clothing).’

(3) l_V: The noun kulWal 글 exacerbated ‘letter’ is apparently a compound of kul 글 ‘writing’ and pal 발 ‘(a nominal suffix).’ malWam 말밤 ‘water chestnut’ combines mal 말 ‘water chestnut’ (though this etymology is not certain) with pam 박 ‘chestnut.’ The noun kalwem 갈웜 ‘spotted (i.e., striped) tiger’ (as opposed to a phwowem ‘leopard, panther’) is a compound of kal- 갈- ‘spotted’ and pem 벼 ‘tiger.’ The noun twothwolwam 두톨웜 ‘acorn’ combines twothol 두톨 ‘acorn’ with pam 박 ‘chestnut.’ Both show the development p ＞ *W ＞ w. Another obvious case of this kind of lenition is syelwep 셰럽 ‘Buddhist sermon,’ the Sino-Korean reading of 说法 found in the early sixteenth-century Pŏnyŏk Pak T'ongsa (1:75).

(4) z_V: The evidence for lenition here is not conclusive. The verb wuzWu- 웃- ‘funny’ combines wuz(u)- 웃- ‘laugh’ with -pu/Wu/p/wo/ 브/복/복/ 볼, a postverb used to derive adjectives from (process) verbs. The phonological shape of this postverb varies with the shape of the stem to which it attaches, the bilabial fricative /W/ appearing after voiced segments, and /p/ after /h, k, t/. But the alternation is not necessarily evidence of lenition, since it could also represent the neutralization of a voicing distinction after a voiceless obstruent.

It is difficult to date these changes of /p/ to /W/. However, as will be seen below, the lenition of s ＞ z took place around the fourteenth century, and so it seems reasonable to assume that labial lenition also happened around that time.

In any event, /W/ disappeared around 1450. The advent of the Korean alphabet in 1446 coincided with almost the very end of the historical existence of this phoneme. Only a few decades earlier, as can be seen from the Cháoxiān-guăn yìyǔ transcriptions, words such as kiwulketa 기울거리 ‘go down,’ kawontay 가운데 ‘middle,’ iwus 이웃 ‘neighbor,’ nwuuy 누의 ‘younger sister,’ swul 술 ‘wine, beer,’ twul 둘 ‘two,’ and yawita 야비타 ‘thin’ had all contained a labial consonant. Yet, nowhere in the alphabetic
corpus is that consonant attested in these words; all that remained, and then only in some cases, was its trace in the form of the semivowel /w/. The verb toWoy- 토의 ‘become’ is attested in the 1447 Yongbi och’ŏn ka. But in the 1447 Sŏkpo sangjŏl and the 1449 Wŏrin chi’ŏn’gang chi kok, this form with /W/ is found only in morphemically complex verbal expressions such as UYSIM_toWoy- 의심 ‘doubt’ and enkuk_toWoy- 언국 ‘be destitute’; otherwise, the verb is always written towoy- 토이-. By the time Sejo ascended the throne in 1455, the letter had almost vanished from the textual record. It is seen in a few forms in the 1464 Amit’a kyŏngŏnhae and in the 1467 Moguja susimgyŏnhae, where, among other uses, it appears in derived adverbs, such as kapoyyaWi 가요야 ‘lightly’ (9), cwozoloWi 조졸로 ‘importantly’ (11), enkuk_toWoy- 언극 ‘be destitute’; otherwise, the verb is always written towoy- 토이-. But these two texts were the last ones to make regular use of the letter.

In most environments, W lenited and merged with the semivowel w. For example, kulWal 글발 ‘letter’ > kulwal 글발; teWe 더 ‘hot’ > tewe 더; sukoWol 스국 별 ‘the country’ > sukowol 스국; elyeWun 어려운 ‘difficult’ > elyewun 어려운. However, when followed by the vowel /i/, W usually did not weaken to w but elided instead: swuWi 수이 ‘easily’ > swui 수이; kaskaWi 갓가 ‘closely’ > kaskai 갓가이; teWi- 더 ‘dirty (something)’ > telei- 더이-, teley- 더이-, nwuWi- 누이 ‘lay (something) down’ > mwui- 누이; saWi 사이 ‘shrimp’ > sai 사이. There are three counterexamples where Wi > wi: chiWi 치이 ‘cold(ness)’ > chiwi 치이, teWi 더이 ‘heat’ > tewi 더이, and the derived adverbial ending -tiWi- 더이 > -tiwi-더이.

z (△) The consonant represented in Late Middle Korean by a triangle, △, was the voiced dental fricative z. This value can be deduced from the fact that the consonant alternated morphophonemically with s, and because it was found only in voiced environments. In the Hunmin ch’ŏngŭm, the consonant is called a “semi-incisor sound” and identified with the “ɾi` (日) character mother” of the rime tables. That particular “character mother” has been reconstructed for Middle Chinese as a palatal nasal (a fact that has led to speculation that the Korean initial might also have been a nasal), but at least by Song times, the Chinese initial had a dental sibilant quality, *nz’, and in Old Mandarin (fourteenth century) the consonant was pronounced *z. Like the Chinese sound, the Korean consonant was a voiced dental spirant.

In the same modern dialects that show /p/ as a reflex of W, the reflex of Late Middle Korean z is often s. For example, LMK mozol 모솔 ‘village’: Andong [masil]; LMK kozolh 코솔 ‘autumn’: Pukch’ŏng [kasil]. Note that /s/ is never voiced in these dialects, even intervocalically. These correspondences suggest that z lenited from an earlier *s in the central dialects.
The occurrence of the consonant \( z \) was normally restricted to medial position. It was found in the following phonological environments: (1) \( V_V \); (2) \( y_V \); (3) \( *l_V \); (4) \( n_V \); (5) \( m_V \); (6) \( V_W \); (7) \( V_G \).

The Hunmin ch'ŏngŭm haerye gives examples of the first environment, (1): “\( z \) (△), as in azo 아소 ‘younger brother’ and nezi 너 siti ‘bustard.’” An example of (2) is sayzam 새잠 ‘dodder, love vine.’ Examples of (3) entail the reconstruction of *l. These include twuze 두서 ‘a couple of,’ which is derived from \( twul \) 두 ‘two’ + se 서 ‘three’; and phuzeli 프셔리 ‘land overgrown with weeds,’ a combination of phul 플 ‘grass’ and seli 서리 ‘space.’ Examples of (4) include hanzwum 한숨 ‘sigh,’ hanzam 한잠 ‘a creeper, vine,’ and swonzwo 손젓 ‘with (his) own hands, personally’; (5) includes mwomzwo 몸젓 ‘in person (i.e., with one’s own body)’; and (6) wuzWu 윤뼈 ‘funny, laughable.’ An example of (7) is kozGay 크애 ‘scissors’; occurrences of \( z \) in this environment will be discussed together with /G/, below.

The examples in (3), (4), and (5) coexisted with doublets containing /s/ in Late Middle Korean; e.g., twuze 두서 ~ twuse 두서, phuzeli 프셔리 ~ phuseli 프셔리, hanzwum 한숨 ~ hanswum 한숨, hanzam 한잠 ~ hansam 한잠, mwomzwo 몸젓 ~ mwomswo 몸소. In addition, the example in (2), sayzam 새잠, is transcribed as saysam in the seventeenth-century pharmacological text Tongŭi pogam (T'angaek-p'yŏn 2:39).

Although the occurrence of \( z \) was usually restricted to medial position, the consonant also appeared, in certain special vocabulary, in word-initial position. This special vocabulary included mimetics such as zelzel 설설 ‘(the appearance of flowing water)’ and zemzem 섬섬 ‘(the shimmering heat of the sun).’ But there were also two rather interesting nouns that began with z-. zywus 씽 ‘the Four-Stick Game, yut’ and zywoh 씝 ‘mattress, futon.’ The word zywus is found only in the first edition of the Hunmông chahoe (1527). Neither the origin nor the name of the Four-Stick Game is known, but note that, in addition to the modern standard form yuch, the word also appears in various dialects as swus, with an initial /s/ corresponding to Middle Korean /zl/. The word zywoh is a borrowing of the Chinese word for ‘mattress, bedding, cushion.’ It is not Sino-Korean; the regular Korean reading of the character 褥 is ywok, with a final velar stop. To be sure, the word zywoh is written with the appropriate character in the Tusi ŏnhae (22:19), but in other texts it is treated as a native word, just as its reflex, yo, is in Contemporary Korean. In texts of the fifteenth and sixteenth centuries, there were a number of transcriptions of Sino-Korean and Chinese loans that were written with an initial l- or z-; for example, lwongtam 뱇담 (弄談) ‘joke,’ zin.skuy (人氣) 신효 ‘popularity,’ zichyen 시천 (二千) ‘two thousand.’

An initial \( z \) was in fact a common Sino-Korean correspondence of the “\( ˛ı \) (日) character mother” in Chinese. The Cháoxiàn-guǎn yìyǔ (c. 1400)
contains transcriptions that clearly show the pronunciation was real. For example, *noyzil 니칠 (來日) ‘tomorrow’ was transcribed 餒直. The character 直, read in modern Mandarin as zí, would only have been used if the second syllable of the Korean word actually began with a spirant (the character is also used in the same text to transcribe the syllable zi of sozi 숨시 ‘space, interval’). Similarly, *nyezin 녀신 (女人) ‘woman’ was transcribed 呆忍, the second character of which is (today) read rén in Mandarin. Notice, however, that the initial z was usually only preserved in these Sino-Korean readings when the morpheme appeared in non-initial position (though there are exceptions like those given in the previous paragraph); the morpheme -zin ‘person’ (人), for example, also occurred in initial position in inso 인소 (人事) ‘greeting,’ and there the z dropped.

The oldest attestations of a z in Korean are found in the twelfth-century Chinese glossary, the Jiilin leishi. The thirteenth-century Hyangyak kugüp pang also shows clear evidence of the phoneme. These Early Middle Korean transcriptions are discussed in Chapter 4, above.

But other Hyangyak kugüp pang transcriptions indicate that some fifteenth-century examples of z had lenited from an earlier *s, most probably sometime in the fourteenth century. The word sayzam 새삼 ‘dodder, love vine,’ for example, is written there as 鳥伊麻. The character 麻 is a transcription of the native word *sam ‘hemp,’ which had an initial *s-. The medicinal plant name nezam 너삼 ‘Sophora flavescens’ is glossed in that same text as 板麻, representing the native word *nelsam (*nel ‘board’ + *sam ‘hemp’).

The composition of compounds is also evidence of this change, that is, that earlier s lenited to z in voiced environments, between /y, l, n, m/ and vowels. The verb form malmoysam 말모요삼- ‘is caused by’ must come from malmoyzam 말모요즈람- (attested in 1518 Pönyök sohak 8:31) because it is composed of malmo 말모 ‘reason’ + sam- 삼- ‘adopt, take as.’ Similarly, twuze 두처 ‘a couple of’ < *twulse (twul 두 ‘two’ + se 서 ‘three’); phuzeli 프처리 ‘land overgrown with weeds’ < *phulseli (phul 플 ‘grass’ + seli 시리 ‘space, midst’); hanzwum 한즘 ‘sigh’ (han 한 ‘big’ + swum 숨 ‘breath’). Notice that the lenition of s in some of these forms also entails the loss of /l/, which, before a dental consonant, is a well-documented historical change; e.g., swul 술 ‘spoon’ + cye 저 ‘chopsticks’ > swucye 수저 ‘spoon and chopsticks.’ Thus, a typical derivation was: twul 두 ‘two’ + se 서 ‘three’ > *twulse > *twulze > twuze 두처 ‘a couple of.’ With this sequence of changes in mind, other etymologies can be surmised. For example, the earliest attested form of modern standard pwuekh ‘kitchen’ is puzep 브셉, in the meaning of ‘cooking stove’ (Hunmin ch’ŏngǔm). If the word originally meant ‘the place around the cooking fire’ (as it still does in many modern dialects), then puzep was perhaps a compound of pul 플 ‘fire’ plus *sep *섭 ‘side’ (which is
attested in modern dialects and in modern standard compounds such as kilseph ‘roadside’).  

Middle Korean z was in general lost without a trace: $z > \emptyset$. This loss took place between the 1470s and the middle of the sixteenth century. The earliest attestation of the change can be found in the Tusi ḏnhae (1481), where sozi 속시 ‘space, interval’ is also written as soi 속이. In the same text, moyzyang 며양 ‘every time’ coexists with moyyang 며양. In the sixteenth-century Pŏnyŏk Pak T'ŏngsa, the word ‘space, interval’ is written soi 속이, and Sino-Korean noyzil 년일 (來日) ‘tomorrow’ is noyil 년일. These early examples of the elision of z are all restricted to the environment $_i, y$, which suggests that the process of change started there.

The 1527 Hunmong chahoe shows that the consonant was in a state of flux in the 1520s. In that text, the Sino-Korean readings of 人 ‘person’ and 日 ‘day’ were transcribed as zin and zil, both with an initial $z$-. But the latter morpheme had lost its initial $z$- in the word noyil 년일 (來日). Then there is the entry “讓 소양양” (3:11, 25), where the reading of the character 讓 ‘yield’ is given as zyang 속양, but in the gloss for it, soyang 속양 (辭讓), the reading has lost the initial $z$-. In the text under the chart showing tone marking conventions (平上去入定位之圖), the readings given for the characters 人 and 如 are ip 입 and ye 여. The glosses yeu 여오 ‘fox’ (1:19) and aol 아올 ‘taking away’ (3:9), which in earlier texts had been yezo 여로 and azol 아슬, shows that the elision of z had spread to more general occurrences in intervocalic position.  

Since the author of the Hunmong chahoe, Ch’oe Sejin, was born in the 1470s, the elision of $z$ must have begun around then.

Texts from the latter half of the sixteenth century show clearly that $z$ had been lost by that time. Texts from the 1570s, such as the Kwangju edition of the 1575 Chi’onjamun and the 1576 Sinjũng yuhap, contain a number of occurrences of the letter △ (z), but in most places the letter has been replaced by the zero initial, ○. By the 1580s, in texts such as the 1587 Sohak ḏnhae and the 1590 Sasŏ ḏnhae, the symbol △ is rarely used, and in the 1583 Sŏkpong Chi’onjamun it does not appear at all. The later, occasional uses of the letter △ in words such as mozom 민솔 ‘heart, mind’ and the emphatic particle za △, as well as in transcriptions of character readings such as zo 쾨 (兒) and zi 쾨 (而), are only instances of orthographic conservatism, not

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10 This etymology leaves unexplained, however, the hapax pus 角 ‘kitchen,’ which is attested later, in the 1587 work Sohak ḏnhae (6:92). Thus, pul ‘fire’ + *sep ‘side’ > *pulsep > pusep ‘cooking stove,’ which, through a series of later changes, became modern standard pwuekh ‘kitchen.’ Labial dissimilation of -p to -k is well documented, but why the consonant became aspirated has yet to be explained satisfactorily. Nevertheless, note that the final consonant in Contemporary Korean seph ‘side’ is also aspirated.

11 Although the 1659 redaction of the Hunmong chahoe transcribes a z in these forms, the original edition shows that the consonant had already been lost in these words.
evidence that the sound still existed. It is safe to assume that \( z \) had disappeared from the central dialects by the middle of the sixteenth century.

Although \( z \) generally elided completely, there are a few textual attestations from the sixteenth and seventeenth centuries showing the change \( z \rightarrow c \). The word \( \text{swonzw} = \text{손소} \) ‘with (his) own hands, personally’ is transcribed as \( \text{swoncw} = \text{손조} \) in both the \( c. 1517 \) P\( \text{ŏnyŏk Pak T'ongsa} \) and the \( 1587 \) Sohak \( \text{ŏnhae} \), and \( \text{mwomzw} = \text{몸소} \) ‘in person’ appears as \( \text{mwomcw} = \text{몸조} \) in the \( 1617 \) Tongguk sinsok samgang haengsil to. The fifteenth-century form \( \text{nam
cin} = \text{남진} \) ‘man, male’ may well have been an early example of this change, since it appears to be a development of Sino-Korean *\( \text{namzin} \) (男 人).

The Contemporary Korean word \( \text{samcil} = \text{삼질} \) ‘the third day of the third month of the lunar calendar’ must also have undergone the same change, since it is almost certainly derived from Sino-Korean *\( \text{samzil} \) (三 日) ‘third day.’ The attested cases of this change, \( z \rightarrow c \), occurred following a nasal.

\[ G (⊙) \] In addition to \( W \) and \( z \), there was also a third voiced fricative in Late Middle Korean, the velar spirant \( G \), which was probably realized phonetically as \( [ɣ] \) or \( [ɦ] \). The occurrences of this consonant are often difficult to establish from the textual record, because the symbol used to represent it, \( ⊙ \), was also used as a “zero consonant” to indicate that a syllable began with a vowel. However, the explanation of graphic design given in the \( \text{Hunmin chŏngǔm} \) \( \text{haerye} \) suggests that the symbol was primarily constructed to represent a velar consonant. In the “Explanation of the design of the letters” section of the \( \text{Haerye} \), the sound represented by the symbol \( ⊙ \) (ng) is explained as being similar to that of \( ⊙ \): “[T]he root of the tongue blocks the throat and the breath of pronunciation is emitted through the nose, but even so the pronunciation resembles that of \( ⊙ \).” From this and other statements in the \( \text{Haerye} \), it is clear that the authors associated a sound with the symbol \( ⊙ \), and that the sound was pronounced in the back of the throat.

Philological evidence taken from fifteenth-century texts provides proof of the phonemic status of \( G \). Here is an example: the initial \( k \) of the concessive \(-\text{kenul} \) ‘거늘’ or the gerund \(-\text{kwo} \) ‘고’ seems to disappear when either of these verbal endings follows a stem ending in \(-l\) such as \( \text{al-} \) 알- ‘know’: \( \text{al.enul} = \text{알
어늘} \), \( \text{al.wo} = \text{알오} \). But if the velar consonant had completely elided, liaison would have occurred and the stem-final \(-l\) would have been written as the onset of the first syllable of the ending: \( *\text{a.lenul} \) *아러늘\, \( *\text{a.lwo} \) *아로\. This was the orthographic treatment, for example, when the same stem was followed by the infinitive ending \(-\text{a/e} \) 아/어\: \( \text{a.la} \) 아라 (see section 5.2.6, above). But liaison did not take place in these cases, because there was already a consonant at the beginning of that next syllable. The \(-l\) could only have been written as a terminal if the following syllable began with a consonant, and that consonant must have been a lenited form of the original \( k- \).
Here is another example of the philological sleuthing used to establish $G$ as a phoneme. In the middle of the fifteenth century, the volitive suffix -wo/wu- -오/우- gained an excrescent y- and was written -ywo/ywu- - Yugoslavia whenever it followed a verb stem ending in i- or y- such as mwuy- 꽃 ‘move’: mwuyywuywu- 꽃 꽃. The same was true of the infinitive ending -a/e -아/어: mwuy.ye 꽃어. That was the rule for endings beginning with a vowel. However, the causative morpheme -wo/wu- -오/우-, which appears superficially to be homophonous with the volitive, never gained an excrescent y-: mwuy.wu 꽃. The reason must be because that particular suffix did not begin with a vowel. Instead, it began with the consonant represented by 오. There is no other way to explain the phonemic contrast between mwuyywuywu- 꽃 꽃 and mwuy.ye 꽃어.

The conclusion to be reached from facts such as these is that the symbol 오 was used for two purposes in the fifteenth century. (1) It was used to represent the phoneme $G$; and (2), it was used as a “zero consonant” to preserve the canonical shape of a syllable that began with a vowel. Evidence from the modern dialects supports this conclusion. In the peripheral dialects where lenition did not occur (and [b] and [s] are preserved as reflexes of $W$ and $z$), a [g] is often found as a reflex of $G$. Here are some correspondences found in the Pukch’ŏng dialect of South Hamgyŏng (modern Seoul forms are given for comparison):

<table>
<thead>
<tr>
<th>Late Middle Korean</th>
<th>Pukch’ŏng</th>
<th>Seoul</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘wild grapes’</td>
<td>melGwuy 면위</td>
<td>melgi melwu [maru]</td>
</tr>
<tr>
<td>‘insect’</td>
<td>pelGey 면예</td>
<td>palgi/mi pelley [palle]</td>
</tr>
<tr>
<td>‘sand’</td>
<td>mwolGay 물애</td>
<td>molge molay mor</td>
</tr>
<tr>
<td>‘placate’</td>
<td>talGay-달애-</td>
<td>talge- tallay- [tallae]</td>
</tr>
</tbody>
</table>

The phoneme $G$ can be shown to have occurred in the following environments: (1) $l_V$; (2) $z_V$; (3) i, y_V. (The only environments where the spellings can distinguish /G/ from zero.) This fricative was produced through the lenition of *[g]*, a process that probably took place in the central dialects sometime after the thirteenth century. Examples of (1) include: mwolGay 물애 ‘sand’; nwolGa 놀애 ‘song’; talGay- 달애- ‘placate’; elGuy- 얼의- ‘curdle.’ Examples of (2): kozGay 코גי ‘scissors’; kezGwuy 케우 ‘worm’; wuzGi 웨우 ‘make laugh.’ Examples of (3): poyGay 봉애 ‘Pear Inlet (a place name)’; kolayGwol 콜래울 ‘Walnut Village (a place name).’

The lenition of $k$ to $G$ in these phonological environments can be demonstrated in certain specific cases. Among the most obvious are occurrences of a $k$- at the beginning of a particle or a verb ending.

**k-initial particles.** Particles that began with a $k$- were subject to lenition following a noun ending in $l$, $-i$, or $-y$. These particles include kwa 꽃 ‘with,’ kwos 꽃 ‘precisely,’ and kwom 꽃 ‘each.’ For example, mul_Gwa 몰와 ‘with
water'; mul_Gwos 물 ‘precisely water’ (Tusi onhae 7:9); atol_Gwom 아들 음 ‘each son'; wuli_Gwos 우리웃 ‘precisely us.’ Notice that the k- in these particles was not transcribed after the other vowels, either (e.g., namwo_wa 나모와 ‘with trees’), and it may well be that, at some point in time, a trace of the velar consonant remained in these intervocalic cases as well. But the orthography does not give us sufficient information to show that this was the case, and most Korean grammarians assume that the k- was totally suppressed there. The question particles ka and kwo also lenited after -l, -i, or -y: musum elkwul_Gwo 민슴얼굴오 ‘what face is it?’. After other vowels, the k- in these question particles sometimes elided, but sometimes it did not.

**k-initial verb endings.** Like particles, verb endings beginning with k- were subject to lenition after -l. These endings include the gerund -kwo -고, the adverbative -key -게 and its variant -koy/kuy -기 /기, as well as forms built upon the perfective -ke -거-, such as -kenmalon -건말론, -kenul -거늘, -keni -거니, -ketun -거든. For example, with al- 연- ‘know’: alGwo 알오, alGey 알에, alGenul 알어늘, etc. The k- in these verb endings also lenited after -y: yehuyGenul 여희어늘 ‘though bereaved of…’ However, the k- did not elide after z-; e.g., wuz_웃_ ‘laugh’ + -key -게 > wuskey 웃게 ‘laughingly.’ Nor did the k- elide after vowels, including after -i, unless the -i occurred in one of two morphemes. The first was the copula i- 이-: iGwo 이오 ‘being…,’ iGenul 이어늘 ‘while it is …’ The second was the causative derived from the verb ti- 티- ‘drop’) (ti- 티- ‘drop’ > :tiGwo 디오 ‘make drop, and….’ Because the i- of these two stems induced lenition in this way, it has been suggested that it was phonemically /iy/, a treatment that would also explain why the copula is abbreviated as ‘y- after a vowel.

**Causatives and passives.** Velar lenition also left a conspicuous mark on the postverb used to form causatives and/or passives. This morpheme had a variety of shapes, -ki- ~ hi- ~ Gi- ~ i-, the choice of which depended upon the final segment of the verb stem to which the morpheme was attached. The shape -ki- appeared after a nasal or s- (swumki- 숨기- ‘hide’; paski- 밖기- ‘remove’); -hi- after p-, t-, c-, or sometimes k- (caphi- 자피- ‘get caught’; machi- 마치- ‘stop something’; mekhi- 먹기- ‘be eaten’; meki- 먹기- ‘feed’); -Gi- after l-, z-, or y- (nolGi- 물이- ‘fly something’; wuzGi- 웃이- ‘make laugh’); -i- after h- or sometimes k- (tahi- 다히- ‘touch something’), and the semivowel -y- after a vowel, (syey- 세이- ‘stand something up’).

For this morpheme, the lenition of /ki/ to -Gi- after l- is substantiated by reflexes found in the modern dialects.

<table>
<thead>
<tr>
<th>Late Middle Korean</th>
<th>Pukch’ŏng</th>
<th>Seoul</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘fly (something)’</td>
<td>nolGi-</td>
<td>nalgi-</td>
</tr>
<tr>
<td>‘be bitten’</td>
<td>mwulGi-</td>
<td>mulgi-</td>
</tr>
<tr>
<td>‘be spread’</td>
<td>skolGi-</td>
<td>k’algi-</td>
</tr>
</tbody>
</table>
The transcription of -Gi- after y- was unique. In this environment (y__i, y), the symbol ○ would normally be interpreted as the zero initial, so the transcription method used instead was to double the symbol and write it as 🕙. In Late Middle Korean, the only use ever made of this double-zero symbol was in the transcription of the passive or causative morpheme after a stem ending in -y; for example, kwoyOOye 꽇‘being loved by someone’ is derived from kwoy- 꽇- ‘love,’ and moyOOi.nonila 꽈‘is bound to, by’ is derived from moy- 꽁- ‘bind, tie.’ The double zero, ☺, was devised to represent some sound associated with this morpheme, and it seems probable that it was /G/.

The form -Gwu(y)- was also used as a causative postverb (but apparently not to mark passives). It is not clear how this form related to the morpheme with i-vocalism discussed above. However, here too, the lenited consonant appears following l-, z-, or y-: alGwoy- 알외- ‘inform’ (< al- 알- ‘know’); meyGwu- 메우- ‘cause to shoulder’ (< mey- 메- ‘shoulder’). Modern dialect reflexes of this causative show a velar; the morpheme is found in Seoul, for example, in (non-standard) meykkwu- ‘fill in,’ totkwu- ‘make higher,’ and soskwu- ‘make rise.’ Notice, too, the fifteenth-century transcription mwuyOO- mú‘moving’ (1459 Wŏrin sŏkpo 14:14), with the unique double-zero symbol, ☺, used for the lenited consonant, indicating that a velar-initial variant of this postverb was around in the fifteenth century as well.

The morpheme -key/kay. The nominalizing suffix -key/kay is seen today in a variety of words, including cipkey ‘tweezers’ (< cip- ‘pick up’), cikey ‘A-frame’ (ci- ‘carry on the back’), peykay ‘pillow’ (< pey- ‘use as a pillow’), ciwukey ‘eraser’ (< ciwu- ‘erase’), sswusikay ‘a pick’ (< sswusi- ‘to pick, poke’), etc. The same suffix can be reconstructed for kozGay ‘애 ‘scissors.’ This fifteenth-century noun was a nominalization of the verb koz- 꼴- ‘cut’ plus the instrument-marking suffix -kay, and it shows the lenition of *[g] to G after z-. The word is attested today in Kyŏngsang dialects in a number of forms preserving a reflex for the velar, including kasgi, kajige, kajige, and kase. Lenition of -kay after l- can be found in the word tolGay 돌애 ‘mudguards hanging on either side of a horse’ (from tol- 돌- ‘hang’). Another word possibly composed of this morpheme is nwolGay 늘애 ‘song’ (?< nwol- 늘- ‘perform (music), play (an instrument)’ + -kay).

Compounds. The lenition of /k/ to G is found in a few compound nouns: kolGamakwoy 골아마괴 ‘jackdaw’ (< kamakwoy 가마괴 ‘crow’); kalGwoy 갈괴 ‘blister-beetle’ (< kwoy 껊- ‘cat’), poyGay 빗애 ‘Pear Inlet (a place name)’ (< kay ‘inlet’); kolayGwol 고래울 ‘Walnut Village (a place name)’ (< kwol ‘village’).

Nouns and verb stems. There were a variety of other lexical items containing a consistent occurrence of G. These include such words as melGwuıy 멜위
‘wild grapes,’ *pelGey* 벌에 ‘insect,’ *mwolGay* 물에 ‘sand,’ *talGay*- 달에- ‘placate,’ *kezGwuy* 결위 ‘worm.’

But there were other words where a *G* only appeared in morphophonemic variation. Examples of these include two classes of nouns where *G* is found before a particle beginning with a vowel.

The first shows the lenition of [g] after *l*-: It is comprised of *nolo* 노로 ‘ferry,’ *nwolo* 노로 ‘deer,’ *colo* 쬐로 ‘handle,’ *cyalo*쟈로 ‘sack,’ and *silu* 시로 ‘steamer.’ Before a vowel-initial particle these nouns are written, for example, as *nol.G_i* nơi, *nwol.G_uy* 룹의, *col.G_i* 이, *cyal.G_oy* 떠의, and *sil.G_ul* 을. In these cases, dialect reflexes show the correspondence of [g] to *G*; for example, Pukch’ŏng [nolgɨ] ‘deer(+ object particle).’ Pre-fifteenth century forms of these words have been reconstructed as *nolok,* *nwolok,* *colok,* *cyalok,* and *siluk.*

The second shows the lenition of [g] after *z*-: Among the nouns where this change took place are *azo* 아손 ‘younger brother,’ *yezu* 여스 ‘fox,’ and *mwuzwu* 무수 ‘radish.’ Before vowel-initial particles (or the copula) these are written *az.G_i* 이, *yez.G_un* 은, and *mwuz.G ila* 이라. Again, dialect reflexes attest to /k/; for example, Hamhŭng [akʔi], Pukch’ŏng [yeeŋkʔi] and [mukʔ-]. These have been reconstructed as *azok,* *yezuk,* and *mwuzuk.*

There was another group of nouns that underwent velar lenition, but not to *G.* These words were characterized by a medial nasal. They include *namwo* 나모 ‘tree,’ *kwumwu* 구무 ‘hole,’ *pwulmwu* 불무 ‘bellows,’ and *nyenu* 느 ‘other (person).’ In these cases the Late Middle Korean forms before vowel-initial particles show an unlenited velar: *nam.k_on* 남곤, *kwum.k_ul* 껂글, *pwulm.k_uy* 불괴, *nyen.k_i* 녕기. In the modern standard language, the velar has dropped: *namu,* *kwumeng,* *phwulmu,* *yenu.* But, again, it shows up in non-leniting dialects: Pukch’ŏng *nangk-* , *kwungk-* , Koč’ang [puŋgu]. Here, too, it is possible to reconstruct a morpheme-final *k:* *namok* (notice the Contemporary Korean form *namak-sin* ‘wooden shoes’), *kwumuk,* *pwulmuk,* *nyenk.*

Certain leniting verb stems were characterized by a medial -z-; for example, *pozo*- 봇슨 ‘break, shatter,’ *kuzu*- 그스 ‘drag,’ *pizu*- 비스 ‘dress up.’ Before a vowel, the stem-final vowel elided and a *G* appeared after the *z*: *poz.Ga* 봇아, *kuz.Ge* 그어, *piz.Ge* 비어.

In the fifteenth century a class of verbs made up of stems such as *wolo*-오로 ‘go up’ and *talo*- 다로 ‘be different’ showed a lenited velar before an ending beginning with a vowel: *wolGa* 올아, *talGa* 달아. But here again (see discussion of the causative morpheme -*Gwu*, above), questions arise about the identity of the lenited consonant, because reflexes in some South Chŏlla dialects show a labial instead: [talbu-] ‘be different.’

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12 This class merged with “*l*-doubling” verbs in the sixteenth century.
G and W. The consonant G was also transcribed in several words where a labial is unmistakably attested in earlier texts. The noun kulWal 글발 ‘letter,’ a compound of kul 글 ‘writing’ and pal 발 ‘(a nominal suffix),’ is found in the 1446 Yongbi och’ön ka (26). But in the Sŏkpo sangjŏl, which was printed only a year or so later (1447), as well as in the Wŏrin sŏkpo of 1459, the same word is transcribed kulGwal 글왈. The prospective verbal form syelWul 셰ル ‘sad’ (Wŏrin sŏkpo) is transcribed in the Hunmong chahoe, as syelGwul 셰ル.

A similar orthographic development is seen in the forms solWoni 솔니 ‘say respectfully’ and solGwoni 솔오니. Whether these transcriptions represent orthographic confusion or something else is not clear.

Non-alphabetic transcriptions. The word swolGwos 솔옷 ‘awl’ was transcribed in the 1431 pharmacological work Hyangyak ch’aejip 월립lyo˘ng as 所乙串 and in the 1541 Uma yangjŏ yŏmyŏkpyŏng ch’iryo pang as 所乙古叱.

Both transcriptions were clearly intended to be read as [solgos]. The word is almost certainly a compound of swol - ‘narrow’ and kwoc ‘skewer, spit.’ Notice, also, that the modern standard form of the word is swongkwos.

Nine words and phrases containing a G are attested in the Cháoxiān-guǎn yíyū (c. 1400).

<table>
<thead>
<tr>
<th>Gloss</th>
<th>Transcription</th>
<th>Late Middle Korean form</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) (天)晩 ‘(sky) grows dark’</td>
<td>(哈嫩)展根格大 (hanol) cyemkulGeta (하늘) 남길이다</td>
<td>(hanol) komolGeta (하늘) 남길이다</td>
</tr>
<tr>
<td>(b) (天)早 ‘(sky) is dry’</td>
<td>(哈嫩)格悶格大 (hanol) koGwolGeta (하늘) 구울이다</td>
<td>(tol) kiwulGeta (동)가울이다</td>
</tr>
<tr>
<td>(c) (月)斜 ‘(moon) goes down’</td>
<td>(得二)吉卜格大 (得二)吉卜格大 (得二)吉卜格大 (들)가울이다</td>
<td>(achom ay) nilGela (아침에)날이다</td>
</tr>
<tr>
<td>(d) (早)起 ‘rise (early)’</td>
<td>你格刺</td>
<td>nilGela 날이다</td>
</tr>
<tr>
<td>(e) 說 ‘speak’</td>
<td>你格刺</td>
<td>wolGita 올이다</td>
</tr>
<tr>
<td>(f) 上(梁) ‘go up’</td>
<td>(直黑勒)我很大</td>
<td>wolGa 을아</td>
</tr>
<tr>
<td>(g) 上(御路) ‘go up’</td>
<td>(頣路)我愛</td>
<td>tolGay 을애</td>
</tr>
<tr>
<td>(h) 馬驢‘mudguards’</td>
<td>得蓋</td>
<td>alGwoy- 알외-</td>
</tr>
<tr>
<td>(i) 省諭‘inform’</td>
<td>阿貴</td>
<td>alGwoy- 알외-</td>
</tr>
</tbody>
</table>

The verb ending in the first three entries, -Geta, is the morphophonemic variant of -keta that is found after a stem-final l-. The first phonogram used in the transcription, 格, was clearly intended to transcribe a velar stop. The same character is used for the ending -Gela in the next two entries. All of these forms represent occurrences of the perfective -ke-. The transcriptions in (f) and (g) represent occurrences of the “l-extending” verb wolo- 오로 ‘go up,’ where G was regularly found before an ending beginning with a vowel (see above). The noun ‘mudguards’ contains an occurrence of the nominalizing suffix -kay, which lenited after l- (see above); the character 盖 had a reading that could only have begun with a velar stop. The transcription of the verb form alGwoy- 알외- ‘inform’ using the character 貴 is confirmation that the causative morpheme -Gwoy- began with a velar (see the discussion of the morpheme, above).
The noun *kozGay* 割子蓋 in the twelfth-century *Ji¯lín leishi*, as discussed above in Chapter 4. The phonogram 割 represented a syllable with the velar stop [*g*] as its initial consonant. In the *Hyangyak kugūppang* of 1250, the noun *kezGwuy* 위 ‘worm’ was written variously as 居乎, 居兒乎, and 居叱乎乎. Although the interpretation of these phonograms presents certain difficulties, the character 乎 probably represented a velar fricative.

In the 1492 essay on agricultural practices known as the *Kũnyang chamnok* (2), the verb form *eyGwuti* ‘encircling’ is transcribed in both phonograms and Hangul: 杀於仇智 and 에우디. Notice that the phonogram 仇, which must have been read with an initial velar stop, represents what the Hangul indicates is an occurrence of *G* in the environment *y__V*.

**Later developments of G.** Texts printed in the first half of the sixteenth century maintained the transcription convention for *G*, but in the latter half of that same century, the orthography began to change. In the late 1500s, spellings of verbal inflections such as *wolGa* 을야 ‘goes up’ and *talGa* 타야 ‘is different’ were replaced, for example, in the 1587 *Sohak ŏnhae*, by spellings such as *wolla* 올라 ‘goes up’ and *tallwom* 달롬 ‘being different.’ By the seventeenth century, these double-*l* spellings became the rule. The same orthographic change can be found in the transcriptions of nouns. For example, *nwolGay* 놀애 ‘song’ is spelled *nwollay* 놀래 in the *Ch’o˘phae sin* of 1676; and *nwol.G_i* 놀이 ‘deer (plus subject particle)’ is written *nwol.li* 놀리 in the 1617 *Tongguk sinsok samgang haengsil to*. In the eighteenth century, spellings with a single *l*, such as *nwolay* 노래, became common, replacing the double-*l* spellings in the transcriptions of nouns.

5.3.1.6 **Spirants**

In the fifteenth century, Korean had two affricates, plain *c* and aspirated *ch*. In word-initial position, these consonants were phonetically realized as *[ts]* and *[tsʰ]*. Unlike their modern Seoul counterparts, they were not palatalized.

Evidence that the pronunciation of */c/ was apical can be found in the transcription of the deferential morpheme -*zoW*-. The initial consonant of that morpheme was realized phonemically as *s* after obstruents, but, curiously enough, the *s* was consistently transcribed as *c* (ㅈ) in case the preceding obstruent was *t*, *c*, or *ch*; for example, *etcoWonywo* 얻층영노 (1447 *Sŏkpo sangjöl* 13:16). This transcription of *t + s* as *tc* would only have been possible if the pronunciation of *c* was not palatal, but apical *[ts]* instead. The letter ㅈ transcribed the sound *[ts]*.

Both affricates occurred freely before *i* and *y*. Thus, *cang* 장 ‘cupboard,’ for example, contrasted phonemically with *cyang* 장 ‘soy sauce’; *ce* 저 ‘oneself’ was pronounced differently from *cye* 저 ‘chopsticks’; *chwo* 초 ‘vinegar’...
contrasted with *chywo* 쳐 ‘candle.’ These contrasts are usually assumed to involve palatalization, that is, that *c* and *ch* had palatal pronunciations before *i* or *y.; thus [tsan] ‘cupboard’ : [tʃyang] ‘soy sauce’; [tsa] ‘oneself’ : [tʃyə] ‘chopsticks’; [tsʰo] ‘vinegar’ : [tʃʰo] ‘candle.’ That may well have been the case. However, there remains the nagging question of when these palatal allophones developed. Today, in the northwestern dialects where [ts] and [tsʰ] pronunciations have been preserved, the consonants are not only pronounced without palatalization before (other) vowels, but before *i* and *y* as well. In no environment are /c/ and /ch/ palatalized in P’yŏngan speech. In the central dialects, as well as in the other dialects where palatalization developed, /c/ and /ch/ must have developed palatal allophones before *i* and *y* before the end of the Late Middle Korean period. But whether or not that had happened before the middle of the fifteenth century remains an unresolved question.

The dental fricative *s* and its reinforced counterpart *ss* were pronounced much the same in the fifteenth century as they are today. However, at that time *s* occurred freely before *y*, creating contrasts such as *sem* 섬 ‘stone stairstep’ : *syem* 섬 ‘island’ and *swoh* 슜 ‘swamp’ : *sywo* 쇠 ‘ox.’ Since the dental fricative is thought to have been palatalized before *i* or *y*, these contrasts are usually assumed to have been realized phonetically as [səm] : *[ʃyəm]*; etc. But again, just as is true with the affricates, /s/ is realized as [s] before *i* or *y* in the modern northeastern dialects, leaving the question open as to when palatalization in this environment occurred.

Although *s* can be shown to have lenited to *z* (ㅿ) in many words, lenition was not automatic, for [s] regularly occurred in voiced environments in the fifteenth century. However the process of lenition is treated historically, /s/ and /z/ were contrasting phonemes in the fifteenth century; e.g., *tasi* 다시 ‘again,’ *azi* 아시 ‘first.’

5.3.1.7 Nasals and liquids

**Nasal distribution** The labial *m* occurred freely in almost all phonological environments. The distribution of the dental nasal *n* was also relatively unrestricted; unlike the central dialects today, Middle Korean contained many occurrences of *n* before *i* and *y*; e.g., *ni* 니 ‘tooth,’ *nima* 니마 ‘forehead,’ *niph* 담 ‘leaf,’ *nyelum* 녀름 ‘summer.’ It was somewhat later, during the Early Modern Korean period, that *n* was lost in this position. The distribution of the velar nasal *ng* (ㆁ) was more restricted. It did not occur in word-initial position, though it was apparently found in morpheme-initial position in *syongaci*守住 ‘calf’ (sywo 쇠 ‘ox’ + diminutive -ngaci -아지) and the polite marker -ngi-, as well as in a few Sino-Korean words such as *sange* 상어 ‘shark’ (sa 사 + -nge 魚). But there is little reason to believe that *ng* has ever occurred in word-initial position in Korean.
The most glaring difference in the distribution of these three nasals could be found at the end of verb stems. While labial m was commonly found at the end of stems, the dental nasal n was rare in that position. It occurred at the end of two common verb stems: an- 안- ‘embrace’ and sin- 신- ‘put on (shoes),’ verbs obviously related to the nouns anh 안 ‘inside’ and sin 신 ‘shoes.’ Also, there was another, very marginal n-final stem: ten- 편- ‘bet, gamble’ (1527 Hunmong chahoe 3:8). But this latter stem was not only rare; it also had an aberrant canonical shape for other reasons, which will be discussed below. The velar nasal ng did not occur at all at the end of verb stems, and it still does not.

**Nasal epenthesis** Occurrences of a nasal before an affricate present certain problems for historical reconstruction. In some cases, the Middle Korean words in question had alternate forms with and without a nasal; other words have Early Modern Korean and/or modern dialect reflexes in which a nasal seems to have been inserted. Here are some correspondences:

<table>
<thead>
<tr>
<th>MK</th>
<th>post-MK</th>
<th>Pukch’ŏng</th>
<th>Seoul</th>
</tr>
</thead>
<tbody>
<tr>
<td>hide</td>
<td>kochwo-~konchwo-</td>
<td>kamchwu-</td>
<td>kamchwu-</td>
</tr>
<tr>
<td></td>
<td>~komchwo- marketer</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>안조-~</td>
<td></td>
<td></td>
</tr>
<tr>
<td>magpie</td>
<td>kachi 가치</td>
<td>kkachi</td>
<td>kkachi</td>
</tr>
<tr>
<td>repair</td>
<td>kwotdi- 고티-&gt; kwochi-고치-</td>
<td>kwochi-</td>
<td>kwochi-</td>
</tr>
<tr>
<td>vine</td>
<td>nechwu 낮출</td>
<td>nengkwuli</td>
<td>nengkwul</td>
</tr>
<tr>
<td>throw</td>
<td>teti- 더디-</td>
<td>tenci-</td>
<td>tenci-</td>
</tr>
<tr>
<td>hammer</td>
<td>machi 마치</td>
<td>mangchi</td>
<td>mangchi</td>
</tr>
<tr>
<td>stop</td>
<td>mechwu- 머추-</td>
<td>memchwu-</td>
<td>memchwu-</td>
</tr>
<tr>
<td>sit</td>
<td>ank- as-<del>az- ac- 압-</del> 압-~ 압-</td>
<td>anc-</td>
<td>anc-</td>
</tr>
<tr>
<td>place</td>
<td>yenc- yec- 염-~염-</td>
<td>enc-</td>
<td>enc-</td>
</tr>
<tr>
<td>still, yet</td>
<td>ancok- acik - ancik</td>
<td></td>
<td></td>
</tr>
<tr>
<td>worth</td>
<td>echi 어치</td>
<td>—</td>
<td>echi</td>
</tr>
<tr>
<td>now</td>
<td>icy 이제</td>
<td>incey~icey</td>
<td>incey~icey</td>
</tr>
<tr>
<td>cause to</td>
<td>canchi-~cachi-</td>
<td>—</td>
<td>cachi-</td>
</tr>
<tr>
<td>subside</td>
<td>hoWoza-~howoza- hwonca 혼자</td>
<td>honca</td>
<td>honca</td>
</tr>
<tr>
<td>alone</td>
<td>—</td>
<td>esthyengi~enchyengi</td>
<td>heycheyngi</td>
</tr>
</tbody>
</table>

There is no obvious way to explain these correspondences. On the one hand, there does not seem to be anything to motivate the insertion of a nasal before an affricate, especially one which seems to be sporadic. But some of the nasals could not possibly be original.
First, it has been shown that the forms ac- ‘sit’ and yec- ‘place’ are older than their more general, nasalized counterparts. Though the stem ac- only appears in the alphabetic corpus in the form acas.skay 아 cigaret ‘a sitting place (i.e., a cushion)’ (1517 Pŏnyŏk Pak Tongsa 1:31), the word is also transcribed with phonograms in earlier works. The Cháoxiān-guān yìyǔ (c. 1400) gives as the entry for ‘sit’ (坐) the transcription 阿格刺; and the twelfth-century Jìlín lèishi has 阿則家畝. In both cases, the phonograms lack any trace of a nasal. The earlier, Jìlín lèishi, transcription in particular gives a clear indication that the stem should be read [*atsʌ-]. Today, the unasalized forms of both of these stems can be found in the Cheju dialect, where the reflex for ‘sit’ is ac-, and the reflex for ‘place’ is yoc- [yʌdz-]. Note that the unasalized form of ‘sit’ can even be found in the standard language in the mimetic acang-acang ‘the tottering gait of a baby (about to topple onto its rear end).’

Still more convincing are the developments of teti- 더蒂- ‘throw’ and kwothi- 고帝- ‘repair.’ Here, the Middle Korean forms were characterized by dental stops, not affricates. Thus, the nasals cannot be original, since it is only after the stops were palatalized and affricated that the phonological environment in which the nasals are found emerged. The verbs cachi- 자치- ‘cause to subside’ and mechwu- 머추- ‘stop (something)’ are derived from the verbs cac- 죽- ‘subside’ and mec- 멕- ‘stop’ plus a causative postverb -hi- -히-, or -hwu- -후-, and none of these morphemes contains a nasal.

But perhaps the most conclusive evidence for epenthesis comes from the Chinese loanword panchywo 반쵸 ‘plantain.’ This noun is found in the 1527 glossary Hunmong chahoe, where it is correctly identified with the characters 芭蕉. Since neither the original Chinese word (bājiāo in modern Mandarin) nor the Sino-Korean reading of either of these characters (pha and chywo) contains a nasal, the nasal could only have come about through epenthesis after the word was borrowed into Korean.

**Liquid l (ㄹ)** In Middle Korean, the liquid /l/ had two allophones, [r] and [l], just as it does today. The Haerye explains:

In the case of the semilingual, there are two sounds, light and heavy. Although in the rime books there is only one character mother, and although in our national speech light and heavy are not distinctive, both can be pronounced. If one desires to provide for this usage, one may, on the precedent of the ‘light labial’ sounds, write  royalties immediately below ㄹ, making a light semilingual sound in which the tongue momentarily touches the upper palate.

Like ng, the liquid /l/ did not occur at the beginning of native words, though it was found in initial position in Sino-Korean. But even in this Sinitic vocabulary, we find cases where initial l- had already changed to n- by the fifteenth century; for example, noyzil .TEST, nozil .TEST ‘tomorrow’ (来日,
cf. the Mandarin Chinese reading lǎirì). Many more such cases are found in sixteenth-century texts; e.g., Ni Sywoza 니소사 ‘(a name)’ (李小兒), nwomwo 노모 ‘old mother’ (老母), nyeycel 네철 ‘etiquette’ (禮節).

Some medial occurrences of [r] represent the lenition of a dental stop. A few conspicuous ones, such as mwolan [moran] 모란 ‘peony’ (牧丹), are Chinese in origin. Since the regular Sino-Korean shape of this particular compound is mwoktan, the word mwolan must be a later loan, borrowed after the -k had been lost in northern Chinese. The word cholyey 쩔례 ‘order’ is from chotyey 쩔뎨; twolyang 도댱 ‘Buddhist seminary’ is from twotyang 도댱 (道場); pwoli 보리 ‘Bodhi’ is from pwotyey 보뎨 (菩提).

There was also the native doublet patah ~ palol 바닿 ~ 바ﷺ ‘sea.’ In addition, a t at the beginning of certain inflectional endings was replaced by an [r] when the ending followed the copula. Perhaps most importantly, [t] alternated with [r] in a number of irregular verb stems.

5.3.1.8 Terminal consonants
In Late Middle Korean, a word could end in a vowel, y, or one of eight consonants: p, t, k, m, n, ng, s, or l (see 5.2.3, above). Other consonants occurring morphophonemically in that position were realized phonemically only when followed by a particle or inflectional ending beginning with a vowel. In final position, the feature of aspiration was neutralized; thus, -ph, -th, and -kh were realized as -p, -t, and -k. And by the fifteenth century, the affricates -c and -ch were no longer distinct from -s. Thus, in isolation, nac 앱 ‘daytime’ was spelled (and pronounced) nas 앱; noch 앱 ‘face’ was nos 앱. (See the discussion on Early Middle Korean in Chapter 4, above.)

However, -s was still distinguished from -t at the end of a syllable. The transcriptions in the Cháoxiān-guān yìyǔ (c. 1400) give excellent confirmation of this fact. At the time, the only consonants that could close a northern Chinese syllable were -n and -ng (and, perhaps in some cases, -m), and to
represent other codas with phonograms the Chinese scribes devised special orthographic conventions. For example, the Korean phoneme /l/ which was realized as [l] in final position, was represented by the character 二 (read /er/ in modern Mandarin); e.g., tol 동 ‘moon’ was transcribed 得二, and pyel 별 ‘star’ was transcribed 別二. To represent an -s coda, the scribes used the character 思 (read sī). Here are examples:

<table>
<thead>
<tr>
<th>Gloss</th>
<th>Transcription</th>
<th>Late Middle Korean form</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘flower’ (花)</td>
<td>果思</td>
<td>kwos 곳 (← kwoc 곳)</td>
</tr>
<tr>
<td>‘walled city’</td>
<td>(城)雜思</td>
<td>cas 갖</td>
</tr>
<tr>
<td>‘pine nuts’ (松子)</td>
<td>雜思</td>
<td>cas 갖</td>
</tr>
<tr>
<td>‘face’ (面)</td>
<td>儘思</td>
<td>nos 兑 (← noch 兑)</td>
</tr>
<tr>
<td>‘clothing’ (衣服)</td>
<td>臥思</td>
<td>wos 옷</td>
</tr>
<tr>
<td>‘lined clothes’ (夾衣)</td>
<td>結臥思</td>
<td>kyep.wos 겹옷</td>
</tr>
</tbody>
</table>

In contrast, a -t coda went unrepresented in phonograms. For example, pat 받 ‘rice paddy’ (田) (← path 밭) was transcribed with the single character 扳; pyet 별 ‘sunshine’ (陽) (← pyeth 별) was written simply as 別; pwut 분 ‘writing brush’ (筆) was 卜; twot 돈 ‘swine’ (猪) (← 돈) was 村; pit.ssota 堆쓰다 ‘expensive’ (貴) was 必色大; pit.tita 堆디다 ‘cheap’ was 必底大.

This Chinese transcription convention not only reflects the distinction between -s and -t, it also gives valuable hints about the pronunciation of the consonant. It is worth noting that the character 思 was also used to represent [s] in the Mongolian and Jurchen transcriptions found in the Hwá-Yí yiyū. To Chinese ears, all these consonants sounded like sibilants.

z (△) as terminal Although only eight consonants could end a word, nine could close a syllable. This ninth terminal consonant, z, was realized only in case the following syllable began with another voiced fricative, G or W; for example, kozGay 溪에 ‘scissors,’ kezGwuy 경위 ‘worm,’ 융복- wuzWu- ‘funny.’ Otherwise, the z was neutralized with s.

Seven terminal consonants By the turn of the sixteenth century, W and G had disappeared, and z ceased to be transcribed as a terminal. Around this same time, the distinction between -t and -s became neutralized in final position. Fifteenth-century forms such as isnoni 잇는니 ‘is and . . .,’ ithus. nal 이웃날 ‘the second day,’ muysmuys_hota 웡벗高等学校 ‘slippery,’ and nas-nachi 낳나치 ‘one by one’ were transcribed as innoni 잇는니, ithunnal 이튼날, muynmuys_hota 웡벗高等学校 and nannachi 낳나치 in texts written around the beginning of the sixteenth century. These later forms show that -s had been neutralized to -t, which then underwent regressive assimilation to the following nasal.
Terminal clusters The general rule was that only one consonant could close a syllable, and the only clusters that occurred in this terminal position were sequences beginning with \(-lm, -lp,\) and \(-lk.\) Middle Korean texts also contain \(-ks\) clusters transcribed at the end of words such as \(naks \, \text{‘hook’ and } neks \, \text{‘spirit’},\) but it is not clear that the \(s\) in these words was ever pronounced before a juncture.

5.3.1.9 Morphophonemic replacements When certain consonants occurred together in Middle Korean, they were converted into different phonemic strings. These replacements can be divided into five categories.

(1) The glottal fricative \(h\) \(\left(\h suk\right)\) was the most protean consonant. Whether occurring morphophonemically before or after the plain consonants \(p, t, c, k,\) it combined with them to form aspirates, \(ph,\) \(th,\) \(ch,\) \(kh\) \(\left(\text{ㅍ, } \text{ㅌ, } \text{ㅊ, } \text{ㅋ}\right).\) An \(h\) combined with \(s\) was replaced by \(ss.\) Before an \(n,\) \(h\) changed to \(t;\) and before a pause, \(h\) dropped. Some of these changes are illustrated by the behavior of the verb stem \(nwoh- \, \text{‘put, place.’} \) This stem combined with the gerund ending \(-kwo\) to form \(nwohkw\) 노코; with \(-sopkwo\) gave \(nwohswopkw\) 노흡고; with \(-nwoni\) gave \(nwonwoni\) 논노니. The noun \(tyeh\) ‘flute’ plus the particle \(kwa\) gave \(tye khwa\) 틐카 \(\text{(1463 } P\text{ophw}}k ky\text{on}k\text{onhae 1:221); in isolation, the noun was written } tye\) 틐, without its morphophonemic \(h.\)

(2) The voiced fricatives \(z\) \(\left(\text{ㅿ}\right)\) and \(W\) \(\left(\text{ㆠ}\right)\) devoiced to \(s\) and \(p\) when combined with \(k,\) \(t,\) \(c,\) or \(s.\) For example, the verb stems \(wuz\) \(-\, \text{‘laugh’ and } twow\) \(-\, \text{‘help’ plus the gerund } -kwo\) \(-\) formed \(wuskwo\) 웃고 and \(twopkw\) 둘고.

(3) A \(t\) assimilated the nasality of a following \(n.\) Competing transcriptions such as \(ketne\) \(-\, \text{‘cross over’ and } kenne\) \(-\, \text{‘id.,’ or } totni\) \(-\, \text{‘go about’ and } tonni\) \(-\, \text{‘id.,’} \) are commonly found in the fifteenth-century textual corpus. \(A t\) derived from an underlying \(h,\) as noted in (1), above, was also subject to this assimilation rule, but the orthography usually did not reflect it.

(4) An initial \(k\) - lenited to \(G-\) after a morpheme ending in \(-l\) or \(-y.\) For example, following \(al\) \(-\, \text{‘know’ or } towoy\) \(-\, \text{‘become,’} \) the gerund ending \(-kwo\) \(-\) changed to \(-Gwo\) \(-\) \(\text{G으로; } \) \(alGwo\) \(\text{알로, towoyGwo\) \(\text{도로요. In addition, the particles } kwa\) \(-\, \text{, } kwas\) \(-\) \(\text{, and } kwo\) \(-\) \(\text{were realized as } wa\) \(-\) \(\text{, wos\) \(\text{, and } wom\) \(-\).}

(5) The initial \(t\) - of a number of morphemes lenited to \(l-\) \(\left([r]\right)\) when attached to the copula \(i-\) or certain other stems. For example, the copula plus the indicative ending \(-ta\) \(-\) \(\text{was } ila\) 이라; the copula and the prefinal \(-two\) \(-\) \(\text{became } ilwo-\) 이로-, and the copula plus the retrospective \(-te-\) was
In addition, the adjectival postnominal -toWoy/toW-/-думать]/톰- was realized as -loWoy/loW-/-думать]/톰- following l-, y-, or a vowel; for example, cywupyen-towoy- 쥬변думать- ‘being free,’ but way-lowoy- 외SIM.datatables- ‘lonely.’

5.3.2 Vowels

Late Middle Korean had seven vowels:

<table>
<thead>
<tr>
<th>i [i]</th>
<th>u [i]</th>
<th>wu [u]</th>
</tr>
</thead>
<tbody>
<tr>
<td>e [ə]</td>
<td>wo [o]</td>
<td></td>
</tr>
<tr>
<td>a [a]</td>
<td>o [ʌ]</td>
<td></td>
</tr>
</tbody>
</table>

Six of these vowels correspond to phonemically distinct reflexes in the modern standard language. The seventh, the vowel represented by the letter ·, does not exist per se in the Seoul dialect today, but it has been preserved as a distinct entity in the Cheju dialect, where it is pronounced [ɔ] or [ʌ]. Largely for that reason, the vowel is believed to have been pronounced similarly, as [ʌ], in Middle Korean.

The articulation of the Middle Korean vowels has long been a subject of interest and controversy largely because of the unique descriptions given in the Hunmin ch’ongum haerye (see section 5.2.2, above). These descriptions, while suggestive, are couched in terminology that is not completely understood today, and as a result they have been interpreted in various different ways by investigators. Some believe that “deep” referred to an articulation with the tongue relatively far back in the mouth, and “shallow” to a pronunciation with the tongue at the front of the mouth. Others associate these terms more with relative tongue height. It is generally thought that “contracted” and “spread” referred to the presence or absence of rounding, and that is certainly a strong possibility. But for all such features of this kind there is an inherent danger in assuming a one-to-one relationship between the categories devised by fifteenth-century Korean literati and those of modern phonology. The textual interpretation of the Hunmin ch’ongum haerye provides valuable evidence, but it is difficult to determine fifteenth-century pronunciation based upon that witness alone.

Foreign transcriptions offer clues to the phonetic values. Among the most relevant are the phonograms used in the Cháoxiàn-guàn yìyǔ (c. 1400), which suggest strongly that the pronunciations of the vowels represented by ⊙- and ⊙ were much the same as they are today. Here are the transcriptions of various syllables containing those vowels, shown with the Old Mandarin (fourteenth century) readings of the phonograms:
Korean transcriptions of other languages are also useful. In the Late Middle Korean period, a number of Mongolian–Chinese dictionaries circulated among Korean scholars. One of these, the *Mènggù yùnlùè* (蒙古韻略),\(^{13}\) was used extensively by Ch’oe Sejin in compiling his 1517 dictionary, the *Sasŏng t’onghae*, where he cited the reading of the “Mongol Rimes” for almost every character, transcribing the ‘Phags-pa Mongolian letters in Hangul. Here are the phonetic values usually assumed for the ‘Phags-pa letters compared with Ch’oe’s Hangul:

<table>
<thead>
<tr>
<th>‘Phags-pa</th>
<th>Hangul</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>ㅏ</td>
</tr>
<tr>
<td>o</td>
<td>ㅗ</td>
</tr>
<tr>
<td>u</td>
<td>ㅜ</td>
</tr>
<tr>
<td>e</td>
<td>え</td>
</tr>
<tr>
<td>ê</td>
<td>ër</td>
</tr>
<tr>
<td>ö</td>
<td>ㅡ</td>
</tr>
<tr>
<td>ü</td>
<td>ㅣ</td>
</tr>
<tr>
<td>i</td>
<td>ㅣ</td>
</tr>
<tr>
<td>hi</td>
<td>ㅣ</td>
</tr>
</tbody>
</table>

Transcriptions (2) and (3) again show the phonetic values ㅗ [o] and ㅜ [u]. Transcription (4) is interesting for what it does not show: no unit Korean vowel was associated with the sound [e]. It can be surmised that the pronunciation of ㅓ [ə] was considered too distant, and so ㅕ [yə] was used instead. The association in number (8) is curious, but it is noteworthy that the Chinese rime in which the transcriptions appear (支韻) had a high back vocalism, i. The Korean vowel was surely pronounced much the same as it is today: [ɨ].

The 1492 transliteration of the Japanese *Iroha* (伊路波) poem and the basic Japanese numbers show similar phonetic interpretations:

<table>
<thead>
<tr>
<th>iro</th>
<th>ro</th>
<th>fa</th>
<th>ni</th>
<th>fo</th>
<th>fe</th>
<th>to</th>
<th>ti</th>
<th>ri</th>
</tr>
</thead>
<tbody>
<tr>
<td>ka</td>
<td>ya</td>
<td>to</td>
<td>re</td>
<td>so</td>
<td>tu</td>
<td>ne</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

13 Though this particular Mongolian work has not survived, its content was much the same as the 1308 dictionary *Mènggù zìyùn* (蒙古字韻), which is extant. Both were riming dictionaries structured much like the *Tongguk ch’ongun*, except that the readings of Chinese characters were given using the ‘Phags-pa Mongolian script instead of Hangul.
Here the vowels ㅗ [o] and ㅜ [u] were clearly and consistently equated with the expected [o] and [u] vocalisms in Japanese. The Japanese vowel e was rendered inconsistently, but usually with Korean ㅕ [yəy]. That is the symbol used for the syllable ye, as well as to transcribe the vowel in Japanese ke, me, and we. The symbol ㅏ [ay] was used for Japanese ne, te, and se. (The transcription of this last syllable is, for some reason, closed with an -n: 선; perhaps this transcription was an error caused by contamination from Japanese sen ‘thousand.’) The symbol ㅐ [ay] was used for Japanese ne, te, and se. As was the case with the 'Phags-pa transcriptions, there was no single Korean vowel unambiguously equated to [e]. The conclusion has to be that Korean did not then have the sound [e].

This transcriptional evidence indicates that the pronunciation of the vowels /i, u, wu, e, a, wo/ (ㅣ, ㅡ, ㅜ, ㅓ, ㅏ, ㅗ) was much the same as that of their reflexes in the central region today.

5.3.2.1 The vowel /o/ (・)
The vowel /o/ was lost in two stages. The first was the merger of /o/ with its higher counterpart /u/ in non-initial syllables. This change began in the fifteenth century and appears to have reached completion in the sixteenth. The second stage was the merger of /o/ with /a/ in initial syllables, a round of changes that took place much later, in the eighteenth century.

The merger of /o/ with /u/ in non-initial syllables can be seen here and there in texts written in the fifteenth century. For example, in the 1459 Wŏrin sŏkpo the quasi-free noun tuy 딴 ‘place where . . .’ appears sporadically as tuy 딴. In the 1481 Tusi ŏnhae, the noun nakonay 나곤내 ‘stranger, guest’ was written without exception as nakunay 나곤내, and kiloma 기름마 ‘packsaddle’ was recorded as kiluma 기름마 (20:44, 22:8). The pronoun kutoy 그듸 ‘thou’ was more often than not written as kutuy 그듸 in that same work. In the 1489 Kuqūp kani pang, ‘suddenly, hurriedly’ appears as both kakoki 가 krótk and kakuki 가급이. At the beginning of the sixteenth century, such examples suddenly increased in number. The Pŏnyŏk Pak T’ongsa (c. 1517) contains lexical forms such as mwotun 모돈 ‘all’ (< mwotun 모돈 1:24), twocuk 도즉 ‘thief’ (< twocok 도즉 1:35), nyenamun 녀나문 ‘other’ (< nyenamon 녀나문 1:34), and tamun 다믄 ‘only, just’ (< tamon 다믄 1:63); the inflectional ending -malon -마론 ‘but, however . . .’ appears there as -(en)malun -(엔)마
The 1587 Sohak onhae shows clearly that the first stage in the loss of /o/ was complete by the time that text was written. Throughout that work, the form kolochi-치-‘teach,’ for example, was replaced by koluchi-치-; mozol을‘village’ by moul을; homolmye흡‘much more’ by homulmye흡. By the latter half of the sixteenth century, /o/ was no longer distinguished from /u/ in non-initial position.

In initial syllables, /o/ showed no signs of change in the fifteenth and sixteenth centuries. The only exception was the word holk흙‘earth,’ which appears as hulk흙 in the 1587 Sohak onhae. Later, in the seventeenth century, somay매‘sleeve’ came to be pronounced swomay소매 (1617 Tongguk sinsok samgang haengsil, yöll yö 4:14). But except in these two words, all occurrences of initial-syllable o remained stable until the eighteenth century.

5.3.2.2 Semivowels and diphthongs
Late Middle Korean had two semivowels, y and w. Both appeared as onglides. In addition, -y also functioned as an offglide.

*y onglides* Four of the seven Middle Korean vowels occurred with a y onglide: ya, ye, ywo, and ywu ([ya], [yə], [yo], [yu]). These diphthongs were written with the symbols ㅏ, ㅑ, ㅓ, ㅠ. The other three vowels, i, u, and o, did not occur with a y onglide, at least in the standard spoken in the capital. However, the Hunmin chŏngŭm haerye (25a) discusses where two such diphthongs, yo [yʌ] and yu [yi], could be heard:

There is no need in the national speech for sounds in which ㆍ[ʌ] and ㅡ[ɨ] arise fromㅣ[ɨ]. But these sometimes occur in the speech of children or in speech in outlying regions. [In such cases] the two letters may be used in combination, as in ㄱᆝ[kyʌ] or ㄱᆜ[kyi].

Although no glosses were given for these syllables, the passage can surely be taken to mean that the diphthongs [yʌ] and [yi] then existed in regional dialects. Also, by saying that the sounds occurred “in the speech of children” it suggests that the diphthongs could sometimes be heard in the capital as well. The only other text in which these particular symbols (ㅏ and ㅗ) are found is the 1678 Kyŏngse chŏngun. But in 1750, in his Hunmin chŏngŭm unhae, the scholar Sin Kyŏngjun created yet another symbol for [yʌ], ㆍ, saying that the sound was used in a “dialect” word for ‘eight’: yotolp ᄆᆞᆯ. The “dialect”

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14 Related to this change is a kind of regressive assimilation of rounding seen in that same work; kowol올‘county’(*구월*) is recorded as kwoul고울(2:4, 8), howol을‘single’ is hwoul호을(3:14, 33), and kowoy외‘lower garment, skirt, trousers’ is kwouy고의.
Sin was referring to was not necessarily that of Cheju. But note that even today in the Cheju dialect there are still words that contain the diphthong [yʌ], including, for example, [yadap] ‘eight.’

The diphthong yo ([yʌ]) had apparently not disappeared from the central dialects very long before the Hunmin chŏngŭm haerye was written. The historical change *yo > ye can be surmised through internal reconstruction. In texts of the fifteenth century, both yele 여려 ‘several’ and yela 여라 ‘id.’ can be found as variant forms of the same word. Since the co-occurrence of /e/ and /a/ in the same morpheme represented a violation of vowel harmony, the earlier form of the word must have been *yola. Then, after the change *yola > yela took place, the vocalism of the latter was restructured to yele to bring the morpheme in line with the rules of vowel harmony. This reconstruction is supported by the modern Cheju reflex [yara]. Similarly, the fifteenth-century word yetulp 여둘 ‘eight’ coexisted with the cognate form yetolay 여들래 ‘eight days.’ Putting that fact together with those mentioned in the previous paragraph indicates that the earlier form of ‘eight’ should be reconstructed as *yotolp. (Note that reflexes with an -a-vocalism, such as [yadal] and [yadap], are found today in many Kyŏngsang and Chŏlla dialects.) The change *yo > ye seems to be the underlying reason for a number of violations of vowel harmony in the fifteenth century.

It is difficult to find evidence upon which [*yi] could be reconstructed. Except for the brief mention of that diphthong in the above-cited passage from the Haerye, evidence for it cannot be found in any historical document or modern dialect. Finally, no diphthong *yi is mentioned in the Haerye or anywhere else.

w onglides The semivowel w occurred in the diphthongs wa, we, and wi. The sequences wo and wu also occurred, but only morphophonemically, since they were pronounced as the monophthongs [o] and [u], and regardless of morphophonemic origin, these two sounds were written with the unit vowel symbols, ㅗ and ㅜ.

The diphthongs wa and we were transcribed by combining vowel symbols: ㅗ (wo) + ㅏ (a) → ㅗㅏ (wa); ㅜ (wu) + ㅓ (e) → ㅜㅓ (we). The vocalic symbol ㅏ, however, was ambiguous in Middle Korean. Today the symbol is used to write the diphthong wi, but in the fifteenth and sixteenth centuries it was normally used to transcribe /uuy/ ([u]). There was no separate way to write [wi] in Middle Korean, and the result was transcriptional confusion. When the voiced fricative W in the verbal ending -티윌 -디윌 ‘but, however’ lenited to w, the resulting phonological shape of the morpheme could only have been -tiwi. (There was no phonological motivation for an epenthetic u.) Yet, this new shape was transcribed variously as -tiwuy -디우, -tiwoy -디우, and -tiwey -디웨. Such confusion could only mean that there was no clear-cut way to represent this pronunciation. In Middle Korean texts, the symbol ㅏ normally
represented /wuy/; however, in cases where forms are known to have undergone the historical change \( W > w \), such as \( \text{chiWi} \) ‘cold’ > \( \text{chiwi} \), the phonological shape intended by “\( \text{읽} \)” was almost surely the diphthong /wi/.

\( y \) offglides  A \( y \) offglide occurred in the diphthongs \( oy, ay, ey, woy, wuy, \) and \( uy \). These were pronounced \([\text{Ay}]\), \([\text{ay}]\), \([\text{oy}]\), \([\text{uy}]\), and \([\text{iy}]\), and written \( \text{ㅏ}, \text{ㅐ}, \text{ㅔ}, \text{ㅚ}, \text{ㅟ}, \) and \( \text{ㅡ} \). There were also triphthongs: \( \text{way, wey, ey, woy, uy} \), and, occurring morphophonemically, \( \text{yay} \) (written \( \text{ㅙ, ㅞ, ㅖ} \)).

No diphthong of the shape \( iy \) was transcribed by the orthography, but one did exist and function as a phonological unit. Here is an example: the causative morpheme -\( i \)- was realized as -\( y \)- after a verb stem ending in a vowel; e.g., \( \text{sye-} \) ‘stand up’ + -\( i-o \)\(- \) \( \rightarrow \text{syey-} \) ‘stand something up.’ But in case the stem-final vowel was -\( i \)-, the -\( y \)- of the causative was not transcribed; for example, \( \text{ti-} \) ‘fall’ + -\( i-o \)\(- \) \( \rightarrow \text{ti-} \) ‘drop.’ Nevertheless, the -\( y \)- was still there, and the phonological shape was \( \text{tiy-} \), as can be seen by the behavior of the stem: for example, whereas the gerund of intransitive \( \text{ti-} \) ‘fall’ was \( \text{tikwo} \), that of the causative verb \( \text{ti (y)}- \) ‘fall’ was \( \text{ti (y) Gwo} \), because the gerund ending -\( kwo \) lenited to -\( Gwo \) after \( y \)-.

Today, the only diphthong with an offglide is \( uy \) [iy], which is believed to be a spelling pronunciation. The other diphthongs have all been monophthongized. Here are the changes that have taken place:

<table>
<thead>
<tr>
<th>Vocalic element</th>
<th>Late MK</th>
<th>Contemporary Korean</th>
</tr>
</thead>
<tbody>
<tr>
<td>ㅏ</td>
<td>[Ay]</td>
<td>( &gt; ) [e]</td>
</tr>
<tr>
<td>ㅐ</td>
<td>[ay]</td>
<td>( &gt; ) [e]</td>
</tr>
<tr>
<td>ㅔ</td>
<td>[ay]</td>
<td>( &gt; ) [e]</td>
</tr>
<tr>
<td>ㅚ</td>
<td>[oiy]</td>
<td>( &gt; ) [e], [we]</td>
</tr>
<tr>
<td>ㅟ</td>
<td>[uy]</td>
<td>( &gt; ) [i], [wi]</td>
</tr>
<tr>
<td>ㅡ</td>
<td>[iy]</td>
<td>( &gt; ) [i-]/[i]/[e]/[iy]</td>
</tr>
</tbody>
</table>

These changes from complex vowels to monophthongs have resulted in one of the greatest differences between the Middle Korean vowel system and that of Contemporary Korean.

5.3.2.3 Vowel harmony

In the *Hummin chŏngŭm haerye*, vowels are arranged into two groups of opposing pairs and classified as either “Yin” (\( \text{um} \) 陰) or “Yang” (\( \text{yang} \) 陽). The lone exception is the vowel \( i ( \text{ㅣ}) \), which the *Haerye* said had “no station or number.”
These groupings represented the Middle Korean system of vowel harmony. The fundamental rule of the system was that, within the same word, 
_yang_ vowels only occurred with 
_yang_ vowels, and 
_yin_ vowels only occurred with 
_yin_ vowels. The neutral vowel _i_ could occur with vowels of either group. For example, in the word _atol_ 아들 ‘son,’ both vowels were 
_yang_ vowels; the modern form of the word, _atul_ 아들, would have been an anomaly, because /u/ belonged to the 
_yin_ category. In the word _petul_ 버들 ‘willow’ both vowels were 
_yin_ vowels. The neutral vowel _i_ could occur with either 
_yang_ vowels, as in _api_ 아비 ‘father,’ or with 
_yin_ vowels, as in _emi_ 어미 ‘mother.’

Vowel harmony also applied to post-stem elements. The result was that many particles and verb endings show alternations between pairs of “
_yin_” and “
_yang_” vowels. Each pair differed in tongue height, the 
_yin_ vowel being pronounced higher in the mouth, the 
_yang_ vowel with which it alternated, lower. For example, the accusative case marker had the shape _ol_ ([\]/l) 을 after 
_yang_ vowels, as in _salo.m_ ol 사로 을 ‘person,’ but _ul_ ([\]/l) 을 after 
_yin_ vowels, as in _yelu.m_ ul 여름 을 ‘summer.’ The locative case particle had either the shape _ay_ ([\]/y) 애 or the shape _ey_ ([\]/y) 에, depending on the word to which it was attached; e.g., _palo.l_ ay 바로 애 ‘in the sea,’ but _nyelu.m_ ey 논예 에 ‘in the summer.’ Here are examples of how the shapes of some verb endings alternated:

<table>
<thead>
<tr>
<th></th>
<th>-ale-</th>
<th>oniluni-</th>
<th>omyen/umyen</th>
</tr>
</thead>
<tbody>
<tr>
<td>yang-vowel stem: <em>kaph</em> ‘repay’</td>
<td><em>kapha</em></td>
<td><em>kaphoni</em></td>
<td><em>kaphomyen</em></td>
</tr>
<tr>
<td></td>
<td>가파</td>
<td>가픈니</td>
<td>가픈변</td>
</tr>
<tr>
<td>yin-vowel stem: <em>ete</em> ‘receive’</td>
<td><em>ete</em></td>
<td><em>etuni</em></td>
<td><em>etumyen</em></td>
</tr>
<tr>
<td></td>
<td>여더</td>
<td>여드니</td>
<td>여드변</td>
</tr>
</tbody>
</table>

If the particle or verb ending began with a consonant, these harmonic rules were in most cases blocked completely. For example, the particle _man_ 만 ‘only, just,’ with a 
_yang_ vowel, had an invariant shape, attaching to words with 
_yin_ vocalism, as in _kes_ man 것만 ‘only (the thing) that . . .,’ as well as to words with 
_yang_ vocalism. The gerund ending -_kwo_ could also follow stems of any shape without its vowel changing; e.g., _kuchikwo_ 귀치고 ‘stopping,’ _cwukwo_ 주고 ‘giving,’ _pwokwo_ 보고 ‘seeing,’ etc. However, a few consonant-initial elements, such as the retrospective -_teʃta_ -더/다- and the perfective -_keʃka_ -거/가-, were subject to the rules of vowel harmony, and the reason for this difference in phonological behavior is as yet unexplained.
5.3 Phonology

5.3.3 Tone and accent

Three tones were recorded in Middle Korean texts. The “departing tone” was marked with one dot appended to the left of the syllable; the “rising tone” was marked with two dots; and the “even tone” was left unmarked (see section 5.2.5, above). The phonetic values of these tones have been determined by examining a number of philological sources, the clearest of which is the Hunmin chŏngŭm ŏnhae, where the following explanations are offered:

The departing tone is the highest sound.
The rising tone is a sound that begins low and later is high.
The even tone is the lowest sound. (13b–14a)

The 1527 Hunmong chahoe gives more details:

The sound height of all syllables is indicated by the presence or absence of dots next to the syllable, and by how many dots there are. A syllable with a low sound is an even tone, so it has no dots; a syllable with a sound that is stretched out long and later raised is a rising tone, so it has two dots; a syllable with a straight and high sound is a departing tone, so it has one dot; . . . (Pŏmnye 4)

To summarize, (1) no marking on a syllable indicated the syllable was pronounced with a low pitch; (2) one dot marked a high pitch; and (3) two dots marked a long, rising pitch. Here are some examples of these pitch contrasts:

<table>
<thead>
<tr>
<th>low</th>
<th>: high</th>
<th>high</th>
<th>: rising</th>
</tr>
</thead>
<tbody>
<tr>
<td>손</td>
<td>· 손</td>
<td>발</td>
<td>:발</td>
</tr>
<tr>
<td>son ‘guest’</td>
<td>SON ‘hand’</td>
<td>PAL ‘foot’</td>
<td>paAL ‘bamboo blind’</td>
</tr>
<tr>
<td>비]</td>
<td>· 비]</td>
<td>· 솔</td>
<td>:솔</td>
</tr>
<tr>
<td>pi ‘stele’</td>
<td>PI ‘rain’</td>
<td>SOL ‘pine’</td>
<td>soOL ‘brush’</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>low–low</th>
<th>: low–high</th>
<th>: high–high/low</th>
</tr>
</thead>
<tbody>
<tr>
<td>가지</td>
<td>가, 지</td>
<td>가지</td>
</tr>
<tr>
<td>kaci ‘eggplant’</td>
<td>kaCI ‘type’</td>
<td>KACI ‘branch’</td>
</tr>
<tr>
<td>서, 리</td>
<td>· 서리</td>
<td>SELI ‘midst’</td>
</tr>
</tbody>
</table>

5.3.3.1 The rising tone

The “rising tone” was not a phonemic unit in Middle Korean. Rather, it is generally believed to have been a combination of a low tone plus a high tone within a single, long syllable. There is considerable evidence to support this analysis.

Many occurrences of the rising tone were contractions of an even tone plus a departing tone. Some of these contractions were historical. For example, in the fifteenth century the word for ‘dog’ had two syllables, low plus high: kahi
produced a rising tone. Here are examples:

\[ \text{produce} \sim \text{rise} \]

The basis of earlier phonogram transcriptions, the change *nâlǐ > nây : 내

But not always; see Ramsey (1978, p. 116).

Late Middle Korean texts from that period the word was written as one syllable with a rising tone, tfoot kêt : 개, A two-syllable origin for kwôm : 곰 ‘bear’ is attested in the 1447 Yongbi ëch’ôn ka place name, Kwômá Nólô 고마눈론 ‘Bear Crossing.’ On the basis of earlier phonogram transcriptions, the change *nâlǐ > nây : 내

‘stream’ has also been documented.

Doublets in Middle Korean show evidence of the same contraction. For example, nwûlí ~ nwûy 忸 gợi ~ 느 ‘world’; twûul ~ twûl 두울 ~ 두물 ‘two’ (< *twuWûly); màktâhí ~ màktây 막다·히 ~ 막: đề ‘staff, stick’; cwûulí ~ cwûli- 주우리 ~ 주리- ‘go hungry.’

The incorporation of the nominative particle ɨ into a low-pitched syllable produced a rising tone. Here are examples:

\[ kù ɨ ‘that one’ + ɨ· ō ] \rightarrow kây : 까
\[ pôy ɨ ‘pear’ + ɨ· ō ] \rightarrow pôy : 빈
\[ pwûthyê 부터 ‘Buddha’ + ɨ· ō ] \rightarrow pwûthêyê 부:테
\[ tôlì ṃiri ‘bridge’ + ɨ· ō ] \rightarrow tôlî ṃiri
\[ kwôlây 고래 ‘whale’ + ɨ· ō ] \rightarrow kwôlây 고:래
\[ môtôy 민디 ‘joint’ + ɨ· ō ] \rightarrow môtôy 민:디
\[ kûûy 그의 ‘thou’ + ɨ· ō ] \rightarrow kûûy 그:디
\[ nêhûy 너희 ‘you all’ + ɨ· ō ] \rightarrow nêhûy 너:회

The same kind of morphological contraction occurred when a low-pitched syllable was followed by the copula ɨ(y)-:

\[ tôlî ṃiri ‘bridge’ + ilá ‘이라’ \rightarrow tôlî ‘lā ṃiri라
\[ nwûûy 누의 ‘(a boy’s) sister’ + ilá ‘이라’ \rightarrow nwûûy’ lâ 누:의라

When the causative postverb -ɨ- was incorporated into a low-pitched, stem-final syllable, the result was the same:

\[ nä- 나‘be born’ + ɨ- · ō ] \rightarrow nây- : 내- ‘give birth to’
\[ tî- 디‘fall’ + ɨ- · ō ] \rightarrow tî- : 디- ‘drop’
\[ pwô 보- ‘see’ + ɨ- · ō ] \rightarrow pwô- : 왼- ‘show’

The volitive -wô/wû- (called the modulator by Martin) often caused the same morphophonemic change,\(^\text{15}\) e.g., pwô 보- ‘see’ + -wô- + -m \rightarrow pwôm : 봄 (Wôrin sôkpo 1:25); kà- ‘go’ + -wô- + -lq \rightarrow kàlq : 봄 (Yongbi ëch’ôn ka 19).

Not all syllables marked with rising tones are amenable to this kind of parsing; some have etymologies that are as yet opaque. Nevertheless, most investigators favor the analysis of syllables in the rising tone category as two moras, the first with a low tone and the second with a high tone. The result

\(^{15}\) But not always; see Ramsey (1978, p. 116).
is a simpler Middle Korean suprasegmental system consisting of just two contrasting levels of pitch.

5.3.3.2 Reflexes in the modern dialects
The central dialects, including the modern Seoul standard, have lost all lexical pitch distinctions, preserving only the vowel length of rising tones. However, a number of peripheral dialects have systems of pitch accent which preserve the Middle Korean distinctions morphophonemically. In the dialects of the northeast (Hamgyŏng) and southeast (Kyŏngsang), and, marginally, in coastal areas of the central region (Kangwŏn) as well, contrasting levels of musical pitch can still be heard. Similar contrasts have also been reported for a few dialects of the southwest (Chŏlla), but these have yet to be fully verified.

**Hamgyŏng** In the Hamgyŏng dialects, tonal patterns are determined by the location of an accent. An accented syllable is more prominent than adjacent syllables. Unless the accent is on the first syllable, pitch starts low, then rises toward the accented syllable as a target, which is pronounced higher and with more force. After the accent, the pitch falls immediately, staying low to the end of the word or phrase. But if the accent occurs on the last syllable, or if the word has no accent, the tonal pattern is identical; in both cases, pitch rises into the last syllable, and then trails off at the end.

In other words, words and phrases are distinguished by contrasts in pitch, not by tones of individual syllables. Thus, Hamgyŏng monosyllables cannot be distinguished by pitch, and words such as pay ‘pear’ and pāy ‘belly’ are homonyms when pronounced in isolation. The lexical difference between these words – the difference in accent – can only be pronounced and heard when the nouns are followed by a particle (such as iska) or the copula: [pe Ga] ‘pear’ (low–high) : Pē ga ‘belly’ (high–low). The tonal pattern of meli ‘head’ (low–high) does not contrast phonemically with that of unaccented pwoli ‘barley,’ which also rises from low to high. Just as with monosyllables, the pitch contrast between these two words is only evident when they are followed by other elements. These are morphophonemic distinctions.

When Middle Korean words are compared with their reflexes in the modern Hamgyŏng dialects, the correspondences between Middle Korean tones and Hamgyŏng accents become readily apparent. The Hamgyŏng accent occurs on the first syllable that in Middle Korean was marked with a departing tone – that is, a high pitch. Since the Hamgyŏng accented syllable is characterized by high pitch, the phonetic match is obvious. The principal difference is that, in the Hamgyŏng system, that high pitch is phonemically distinct only when it is followed by a low-pitched syllable.
As for Middle Korean rising tones, the Hamgyŏng reflexes preserve those as accented syllables. They are not phonemically long.

**Kyŏngsang** The Kyŏngsang dialects form the other principal area where the distinctions of Middle Korean tones have been preserved. These dialects resemble the Hamgyŏng dialects in that (most) tonal patterns depend on an accent locus characterized by a high pitch. And, as in Hamgyŏng, the high pitch in these patterns is followed by a low-pitched syllable. But the system also contains complexities not found in Hamgyŏng. One is a tonal pattern with no prominent syllable. In this pattern, the pitch always begins with two high syllables, and any syllables that follow in the same phrase are all low in pitch. For example (using data from the Kimhae dialect), *PHWOLI* ‘fly’ (high–high); *MWUCIkay* ‘rainbow’ (high–high–low); *MWUCIkay ka* (high–high–low–low); *MWUCIkay man two* ‘even just a rainbow’ (high–high–low–low–low). The anomaly of this pattern, and that of other irregularities as well, has resulted from historical changes in the accent system, as can be seen by comparing Hamgyŏng with Kyŏngsang. Here, for example, are the correspondences for some noun phrases composed of a noun plus the nominative particle *i/ka*:

<table>
<thead>
<tr>
<th>Gloss</th>
<th>Hamgyŏng</th>
<th>Kyŏngsang</th>
</tr>
</thead>
<tbody>
<tr>
<td>'flower'</td>
<td>kkwoc_i</td>
<td>kkwóch_i</td>
</tr>
<tr>
<td>'price'</td>
<td>káp_i</td>
<td>'kaps_i</td>
</tr>
<tr>
<td>'the price of flowers'</td>
<td>kkwoc-káp_i</td>
<td>kkwóch-kaps_i</td>
</tr>
<tr>
<td>'wind'</td>
<td>palam_i</td>
<td>palám_i</td>
</tr>
<tr>
<td>'son'</td>
<td>atúl_i</td>
<td>átul_i</td>
</tr>
<tr>
<td>'mosquito'</td>
<td>mwóki_ka</td>
<td>'mwokwu_ka</td>
</tr>
<tr>
<td>'autumn mosquito'</td>
<td>kaal-mwóki_ka</td>
<td>kasíl-mwokwu_ka</td>
</tr>
<tr>
<td>'ladder'</td>
<td>saytalı_ká</td>
<td>saytalı_ká</td>
</tr>
<tr>
<td>'raven'</td>
<td>kamakwi_ka</td>
<td>kкамакwu_ka</td>
</tr>
<tr>
<td>'mullet'</td>
<td>kamwúlchi_ka</td>
<td>kámwuchi_ka</td>
</tr>
<tr>
<td>'spirit'</td>
<td>thwókkaypi_ka</td>
<td>'thwokkaypi_ka</td>
</tr>
<tr>
<td>'house spirit'</td>
<td>cíp-thwókkaypi_ka</td>
<td>cíp-thwokkaypi_ka</td>
</tr>
</tbody>
</table>

In these correspondences the Kyŏngsang accent locus is consistently found one syllable to the left of the Hamgyŏng locus. In prototonic forms, such as ‘mosquito,’ there is of course no syllable located to the left of the accent, but it is here, in these forms, that the anomalous Kyŏngsang tonal pattern is found. Notice that these lexical items nevertheless contain a kind of morphophonemic
accent in front of the word, as can be seen in compounds such as ‘autumn mosquito.’ The correspondences show that the Kyŏngsang dialects have undergone a historical shift of the accent locus one syllable to the left.

Rising tone distinctions, at least when occurring in initial-syllable position, are preserved in all Kyŏngsang dialects. In North Kyŏngsang dialects, such as Taegu, the syllables retain distinctive vowel length. In South Kyŏngsang dialects, such as Kimhae, the reflexes have been described as having a third, extra-low pitch level. In either case, a distinction that has been lost in Hamgyŏng has been preserved.

5.3.3.3 The Middle Korean suprasegmental system
Reflexes found in the modern dialects substantiate two elements of the Middle Korean tone system. First, they demonstrate that initial rising tone syllables were pronounced long. Second, they show that the location of the first high tone in a word or phrase was distinctive.

However, Middle Korean tones differed in a number of ways from the suprasegmental systems found in the modern dialects. (1) The tones of individual syllables in Middle Korean were apparently distinctive. The proof is that, unless the “side dot” marking was morphophonemic, monosyllables such as pŏy ᅚ[‘pear’ and pŏy ᅚ[‘belly’ contrasted by tone, in isolation. An idealized, morphophonemic transcription is certainly a possibility, but the consistency of the marking in Middle Korean texts makes it a remote one. Mistakes were extremely rare, especially in the fifteenth century. (2) The tones leading up to the first high tone were marked as low, while in the modern accenting dialects the pitches of those syllables are raised. This difference is not an important one, for these intermediate pitches are not distinctive in the modern dialects and, in any case, are often slightly lower in pitch than the following, accented syllable anyway. Some scholars have even described them as low. It may well be that, even though Middle Korean scribes perceived those syllables as distinctively low, there was actually a slight rise in pitch after the beginning of the word then as well. (3) Pitch did not necessarily fall after the first high tone. In fact, the tone of the immediately following syllable was usually high, unless it was followed by another high tone, in which case it was often lowered, and the tones marked on syllables after that fluctuated in an “automatic ‘sing-song’ tune of alternating pitches” (Martin 1992, p. 61). These tonal patterns of alternating high and low pitches were radically different from those heard in the modern dialects, where, once the pitch falls, it stays low to the end of the phrase.

What phonemic distinctions existed, then, in the Middle Korean suprasegmental system? Although modern dialect reflexes show that the first high tone in a morpheme was distinctive, they provide no evidence that any of the succeeding tones were. Moreover, within the Middle Korean corpus itself, the evidence for a contrast, for example, between high–high and high–low is
not clear-cut. The tone marked on the second syllable of a word with an initial
high tone often varied. For example, 'mosquito' was recorded as mwŏkŏy
모끼 in the 1447 Sŏkpo sangjŏl (9:9b), but as mwŏkŏy 모끼 in the 1461
Nŭngŏm kyŏngŏnhae (4:3b). The patterns low–high–low and low–high–high
also alternated; àccŏmí 아˛즈미 ‘aunt’ (1527 Hunmong chahoe 1:31b), àccŏmí
아˛즈미 ‘aunt’ (1447 Yongbiŏch’ŏn ka 99). Prototonic patterns were equally
subject to variation; ‘spirit, devil’ was sometimes recorded as twŏskápi
d觌가비, sometimes as twŏskápi 들глас비. The evidence suggests that, within
the same morpheme, pitches occurring after the first high tone were not distinct-
ive. The alternating tonal patterns so commonly seen in Middle Korean texts
must have been, to a great extent, the result of low-level prosodic rules.

This analysis of the Middle Korean tone system also provides a solution to
a morphological problem with the rising tone. As was noted above, the rising
tone represented a contraction of a low tone plus a high tone. This contraction
is seen, for example, in the doublet màktahí ~ màktāy 막다·히 ~ 막·데 ‘staff,
stick.’ But a similar contraction of the second two syllables of cúkcáhí 측
자·히 ‘immediately’ (1459 Wŏrin sŏkpo 1:27) did not result in a rising tone
 cúkcăy; the only contracted shapes of this word that occurred were cúkcăy
측체 (1463 Pŏphwa kyŏngŏnhae 1:90) and cúkcăy 측체 (1461 Nŭngŏm
kyŏngŏnhae 6:104). The difference is this: in màktāy ‘staff, stick,’ the rising
tone preserved the first high tone in màktahí; in cúkcáhí ‘immediately,’ on the
other hand, the second high tone was not distinctive.

5.3.3.4 Tones in earlier Korean

There is no textual documentation of tone before the Late Middle Korean
stage. However, information about pre-fifteenth-century Korean can be
gleaned from internal reconstruction within the Middle Korean corpus itself.
This evidence suggests that earlier Korean had fewer pitch distinctions in its
lexicon than are seen in the complex tonal system of Late Middle Korean;
it is especially likely that few, if any, tone distinctions existed in earlier
verb forms. In the Middle Korean noun classes, monosyllables with a high
tone were almost four times as numerous as monosyllables with a low tone.
For two-syllable nouns, the low–high pattern was more than three times as
common as low–low, and more than five times as common as high–(high).
These are significant statistical differences. In other words, the typical noun in
earlier Korean carried a high pitch on its last syllable.

Tones arose historically through both internal and external causes. The
principal external cause was probably the extensive borrowing of Sinitic
vocabulary. Unlike Sino-Japanese, Sino-Korean vocabulary often preserved
the distinctions found in the original Chinese tones, especially those in the
even tone (平聲) category, where there was a 96.6 percent correlation with
Korean low tone. The internal causes were phonological and morphological
changes, the most important of which were vowel syncope and apocope and the resulting syllable crasis. These processes will be discussed below in connection with the irregular verb classes.

5.3.3.5 The loss of Middle Korean tones
The transcription of tones in fifteenth-century texts was highly consistent, but even as early as the latter half of the century small perturbations in the system began to be seen. This was especially true in the Tusi ǒnhae of 1481, where final syllables normally marked with a high tone tended to be recorded as low tones. These subtle changes have been interpreted by Korean investigators as foreshadowing the impending collapse of the system.

The works compiled by Ch’oe Sejin in the early sixteenth century, including his important 1527 glossary Hunmong chahoe, reflect fifteenth-century tonal distinctions fairly faithfully. However, other works of that same period were less accurate. The tones recorded in the 1518 Pŏnyŏk sohak and the 1518 Yŏssi hyangyak ǒnhae are noticeably inconsistent. Then, beginning in the middle of the sixteenth century with the Pumnun onyŏk ihae pang of 1542, the tonal transcriptions in the textual record became extremely confused. It was in this period that the first texts without side dots appeared; these include the Sŏbongsa reprint of the Yaun chagyŏng, the Palsim suhaengjang, and the Kyech’o simhak inmun, all published around 1580. Later works of the Kyojong Ch’ŏng such as the Sohak ǒnhae of 1588 and the Sasŏ ǒnhae of 1590 contain side dots, but there was almost no regularity in how the marks were used. Philological evidence of this kind suggests that tonal distinctions had disappeared from the capital area around the middle of the sixteenth century.

5.4 Morphology
The Korean lexicon today is divided broadly into inflected and uninflected words. Verbs, adjectives, and the copula inflect; nouns, numerals, and adverbs do not. Inflected words consist of a stem plus an ending, neither of which can occur by itself in isolation. Uninflected words, on the other hand, are not so constrained. Particles may be attached to uninflected words, but they are not required by the morphology.

In Middle Korean, however, this morphological distinction was not as great as it is in Korean now. There was considerable overlap between the two classes. Some nouns and verb stems shared the same basic shape; for example, poy 빗 ‘belly’ and poy- 빗- ‘get pregnant’; pis 빗 ‘comb’ and pis- 빗- ‘comb’; phwum 풀 ‘bosom’ and phwum- 풂- ‘carry in the bosom’; sin 신 ‘shoes’ and sin- 신- ‘wear on the feet’; stuy 씩 ‘belt’ and stuy- 씩- ‘wear (a belt),’ nechwul 너출 ‘vine’ and nechwul- 너출- ‘tendrils dangle down,’ kus긋 ‘stroke (of a Chinese character)’ and kus-∼ kuzu-긋-∼ 그스트- ‘make
a stroke.\textsuperscript{16} Although reflexes of many of these words are still found in the language, such noun–verb word pairs were considerably more numerous in Middle Korean.

Many adverbs also coincided with the forms of verb and adjective stems. Etymological pairs included nowoy ˇ拜 ‘repeatedly’ and nowoy- ˇ拜 ‘repeat’; mis 및 ‘in addition’ and mis-~mich- 및-~및- ‘extend’; ha 하 ‘much’ and ha- 하 ‘be much’; il 일 ‘early’ and ilu- ilG- 이르-~일- ‘be early’; palo 밝 ‘correctly, straight’ and palo-~palG- 밝-~발- ‘be straight’; kulu 그르 ‘mistakenly’ and kulu-~kulG- 그르-~글- ‘be wrong’; pulu 브르 ‘(eating one’s fill) heartily’ and pulu-~pulG- 브르-~불- ‘(the stomach) is full.’ The extent to which adverb usage was unlike that of Contemporary Korean is seen in the following examples with kot 쓰 ‘similarly’ and tat 닭 ‘differently, separately’: Hanols pyeli nwun kot tini.ngita 하늘버리 눈 쓰 다니이다 ‘The stars in heaven fall like snow’ (1447 Yongbi ˇ오치’on ka 50); Woynnyek phi tat tamkwo wolhonnyek phi tat tama 왼녁 피 닭 닭고 울Hon녁 피 닭 다마 ‘The blood on the left (he) put in separately and the blood on the right (he) put in separately’ (1459 W˘orin s˘okpo 1:7). In Contemporary Korean, such adverbs would require derivational suffixes; kath.i ‘similarly,’ for example, is derived from the verb kath- ‘be like’ with the adverbative ending -i. But in Middle Korean, verb stems could be used as adverbs without the addition of suffixes.

Verb compounding worked in a similarly unconstrained way. Combining verb stems directly into compounds, as in pilmek- 볼먹- ‘beg one’s bread’ (from pil- 볼- ‘beg’ + mek- 먹- ‘eat’), was an extremely productive process. Today, in Contemporary Korean, the compounding of verbs is normally buffed through the use of the infinitive ending -e/a, as in pil.e mek- ‘beg one’s bread.’ Although the attested examples are not numerous, Middle Korean verb stems could also be combined directly with nouns, as in pswus-twolh 돈돌 ‘grindstone,’ from pswuch- 돈- ‘rub, grind’ + twolh 돈 ‘stone,’ or twuti-cwuy 두디쥐 ‘mole,’ from twuti- 두디- ‘rummage, fumble’ + cwuy 쥘 ‘rat.’

In other words, verb stems were more independent of their inflectional endings at the Middle Korean stage of the language than they are today.

5.4.1 Compounding and word derivation

Few processes of word formation were unique to the Middle Korean stage of the language; most are also found today in Contemporary Korean. The

\textsuperscript{16} Many of the Middle Korean forms of these words were distinguished by tone; for example, the noun poy- 도 ‘belly’ was marked with a departing tone, while the verb stem poy- 도- ‘get pregnant’ was left unmarked as an even tone. The same was true of stuy- 도 ‘belt’ and stuy- 도- ‘wear (a belt).’ However, the phonological distinction was not completely predictable; both pis 도 ‘comb’ and pis- 도- ‘comb,’ for example, were left unmarked, indicating low pitches.
principal differences are the functional loads and productivity of the processes, and the specific morphemes involved.

In Korean, both historical and modern, it is difficult to distinguish many free-word compounds from syntactic phrases. Although 힘 psu- 힘쓰- ‘endeavor,’ for example, has the structure of a verb phrase consisting of a verb (psu- 쓰- ‘use’) and its direct object (힘 힘 ‘strength’), Korean dictionaries treat it as a compound. Whenever the noun is marked with the accusative particle ul, the structure is considered a phrase; but without the particle, it is analyzed as a compound because of its idiomatic flavor. In cases of this kind, semantics and usage are the deciding factors; if a particular construction is a commonly used one, or if it has an idiosyncratic meaning, it takes on the status of compound. There is no clear dividing line between free-word compounds and syntactic phrases. There are many ambiguous cases.

A related analytical problem peculiar to Korean is that of the so-called “genitive s” (see section 5.2.6, above). Ordinarily, this particle linked nouns in noun phrases, as will be discussed later. Its function was syntactic, not lexical. However, some genitive-s constructions are considered compounds; for example, mwoys-kisulk 푺기슭 ‘the foot of a mountain,’ muls-tolk 들똥 ‘wild duck’ (literally, ‘water-chicken’). The deciding factor seems to be the extent to which the genitive s had bonded with a member of the compound. In mwoys-kisulk 푺기슭 ‘the foot of the mountain,’ for example, mwoys 푺 ‘mountain’ idiomatically functioned as a prenoun; it was also found in compounds such as mwoys-pwongwoli 푽보오리 ‘mountain peak’ and mwoys-kwol 푽골 ‘mountain valley.’ In nyeyes-nal 넛날 ‘olden days,’ the prenoun nyeyes 넛 ‘ancient’ is seen in nyeyes-hoy 넛히 ‘ancient years,’ nyeyes-pskuy 넛㉳ ‘ancient times,’ nyeyes-kowol 넛뫼 ‘ancient village,’ etc.

The phonological differences between Middle Korean and Contemporary Korean created morphological differences. For example, a morphophonemic -h at the end of a noun resulted in the aspiration of a following plain obstruent; e.g., swuh 숨� ‘male’ + tolk 들 ‘chicken’ → swu-tholk 수 ula ‘rooster’; amh 않 ‘female’ + tolk 들 ‘chicken’ → am-tholk 암 ula ‘hen’; anh 않 ‘inside’ + pask 밖 ‘outside’ → an-phask 안팎 ‘inside and outside.’ This phonological rule is not a productive one in noun compounding today; still, many of the words that the Middle Korean rule produced are still preserved as lexical relics: swuthalk 수 ula ‘rooster’; amthalk 암 ula ‘hen’; anphakk 안팎 ‘inside and outside.’ The same phonological rule obtained in compounding with verb stems; for example, nah 낳 ‘age, year’ + tul- 들- ‘enter’ → nathul- 낳할- ‘grow old.’

The most productive type of compound was, and is, the compound noun. A compound noun could be formed of two or more free words, or it could contain at least one bound element, such as a prenoun (woy 외 ‘only, single, one’ + pcak 박 ‘member of a pair’ → woy-pcak 외박 ‘unmatched member of a pair’), which could also be an inflected modifier (han 한 ‘great’ + api 아비
Adverbs were uninflected words that occurred in absolute position. They differed from nouns in that they did not take case particles; otherwise, they can be thought of as belonging to the same word class. Compounds were formed in much the same way, but reduplication was probably a more common process in the composition of adverbs; for example, na-nal 나날 ‘daily,’ motoy-motoy 모티모티 ‘all joints,’ kaci-kaci 가지가치 ‘all kinds.’

The compounding of inflecting stems was a highly productive process in Middle Korean, and a characterizing feature of that stage of the language. As was mentioned above, the stems of verbs and adjectives were combined directly into compounds with much greater frequency than they are today; for example, pilmek 빼먹- ‘beg one’s bread,’ keskwoc 겯곳- ‘take a cutting and plant it,’ tutpwo 들보- ‘listen and see,’ cwuksal 죽살- ‘make live or die,’ tywokhwuc 뇌컷- ‘good or bad’ (tywh- 동- ‘good’ + kwuc- 곫- ‘bad’), nwopnoskaW 놇읽갈- ‘high and low’ (nwoph- 놇- ‘high’ + noskaW 읽갈- ‘low’). Compounds with ni- 니- ‘go’ as the second element were especially common. This verb functioned like a verbal suffix to show continuation of motion or action; for example, nwoni 노니- ‘go around enjoying oneself’ (< nwol- 놇- ‘play, enjoy oneself’), ketni- ~kenni- 겨니- 겨니- ‘stroll, ramble’ (< ket- 겨- ‘walk’), noni- 눈니- ‘fly about’ (nol- 늘- ‘fly’), etni- 얼니- ‘keep looking for’ (et- 얼- ‘look for’), honi- 혼니- ‘move’ (ho- 흔- ‘is, does’). After the sixteenth century, the compounding of verb stems gradually became unproductive, and all that remains of this process today are a few fossilized forms; for example, twolpwo- ‘take care of’ (twol- ‘turn,’ pwo- ‘look’) and selik- ‘become half-done, half-ripe’ (sel- ‘unripe,’ ik- ‘ripen’).

The most productive process of combining verbs in the modern language makes use of the infinitive ending -ela attached to the first stem. This same construction can also be found in Middle Korean texts. For example, naza ka- 나자가- ‘go ahead’ (nas-/naz- 나는/나- ‘proceed,’ ka- 가- ‘go’), twola wodoraO- ‘return’ (twol- 돌- ‘turn,’ wo- 오- ‘come’), pese na- 버서나- ‘get out of’ (pes- 빼- ‘take off,’ na- 나- ‘come out’). A particularly common construction of this kind consists of a verbal infinitive plus the existential verb isi-이시-/있- serving as a kind of aspect marker to indicate the continuation of a completed action – as in this passage from the 1459 Wŏrin sŏkpo (1:6a): howoza anca isticseni 홍오사 잔자더니 ‘he was sitting alone.’ By the middle of the fifteenth century this form was already commonly contracted to -ays/eyes- -있/잇-, and by the sixteenth century a further phonological simplification, -asles- -약/있-, came into general use. These contractions are seen, for example, in: CYENGSYA_ay ancaystesini 精경솜상에 안자더니 ‘he was sitting in the monastery’ (1459 Wŏrin sŏkpo 1:2a), and mu.1 ey comkyesnoni 므례 좀짓는니 ‘it was submerged in the water’ (1517 Pŏnyŏk Pak
In addition, *isi*- 이시-/있- was sometimes contracted to *si*-/시-, for example, *kacye 'sil_ssi_la 가저실씨라 'keeping (it)' (1472 *Mongsan Hwasang pŏbŏ yangnak ŏnhae 3*), *pyesul_hoya 'syom_ay 베플형야 쇼께 'in doing (his) service' (1481 *Tusi ŏnhae 21:45*). There were also some curious exceptions to this morphological rule, in which the infinitive was omitted from the construction. These consisted of occurrences of the verb stem *twu*- 두- ‘place,’ to which *isi*- 이시-/있- or the honorific existential *kyesi*- 겨- was attached directly, as in *twuswnon 뒷논, twuysteni 뒷더니 or *twukyesita 두거시다, twukyesya 두거시다*; for example, *twusimyn 두시면 ‘if/when it has been placed’ (1463 *Pŏphwa kyŏng ŏnhae 1:3*). The same construction was also sometimes contracted to *twus- 듟-, as in *twuswnoni 듟노니 (1481 *Tusi ŏnhae 20:11* or *twuskeni 듟겨니 (1482 *Nammyŏng-chip ŏnhae 2:48*).

5.4.1.1 Derivations
Suffixation was the principal process of word formation in Late Middle Korean. A suffix attached to a word or morpheme determined the word class and function of the resulting derived form.

5.4.1.2 Nominal suffixes
Nominal suffixes that attached to nouns had a variety of functions and meanings. Some were used broadly as diminutives, vulgarizers, personalizers, and the like; others had more narrowly applicable meanings. A few appear to have been used simply to extend the phonological length of the word. One of the latter was the pleonastic nominal suffix *-i*.

In Late Middle Korean, three postposed nominal elements, all probably from the same etymological source (and perhaps related to the homophonous subject particle as well), had the phonological shape /i/. One was the quasi-free noun *i 이 ‘one, person,’ which could serve as the head noun of an adnominalized sentence; for example, *wono.n i 오노니 ‘the one who comes.’ Adnominal constructions of this kind could also be lexicalized as compounds; e.g., *nulkuni 늘그니 ‘old person’ (literally, ‘one who is old’). The second morpheme *i 이 was used to derive nouns from verbs; this morpheme will be discussed below, together with other suffixes of inflecting stems.

The third morpheme *i was the suffix that attached to nouns. Lexical items that in the 1446 *Hummin chŏngŭm haerye* are given as *pwuheng 부형 ‘owl,’ *kulyek 그럭 ‘wild goose,’ and *phol 포 ‘housefly’ appear in texts published after that as *pwuhengi 부형이, kulyeki 그러기* and *pholi 포리*. Moreover, it can also be surmised that nouns such as *api 아비 ‘father,’ *emi 어미 ‘mother,’ and *ezi 어지 ‘mother, parent’ had already incorporated the suffix by the Late Middle Korean period. There are many morphemically complex nouns of this kind. The suffix has a long and productive history that extends...
down to the present day, and just which of the numerous occurrences of -i and -y at the end of Korean nouns resulted from the incorporation of this suffix is often difficult to determine.

The two suffixes -ek -억 and -wong -і, both with obscure etymologies, are occasionally seen in the Middle Korean corpus. The suffix -ek -억 is found in thelek 터럭 ‘hair’ (털 ‘hair’) and cwumek 주먹 ‘fist’ (cwum 쳐 ‘handful’). A variant of this morpheme appears as -ak -악 in cwokak 조각 ‘bit, fragment’ (cwok 쿡 ‘bit, piece’), and perhaps in kalak 가락 ‘toe, finger’ as well, though the form xkal is unattested. The suffix -wong -і is found in the noun kitwong 기і ‘pillar’ (kit 길 ‘id.’).

The diminutive suffix -(ng)acci -아지 appears in sywongaci 써아지 ‘calf’ (sywo 쇼 ‘cow, ox’) and kangaci 강아지 ‘puppy’ (kahi, kay 개 ‘dog’). The velar nasal in these two compounds appears to belong to the suffix, but the diminutive -yacci -야지 seen in mo-yaci 모아지 ‘colt’ (mol 모 ‘horse’), was apparently a variant of -(ng)acci and does not show the nasal. The diminutive -aki -아기, which was derived from aki 아기 ‘child’ is found in psol-aki/sol-aki 빗기/슬기 ‘broken bits of rice’ (psol 볼 ‘rice’). The vulgarizing suffix -pak -박 is attested in meli-pak 멸리박 ‘head’ and tyeng-pak 명박 ‘crown of the head’ (tyeng 토 ‘top, vertex’). The suffix -cyangi/tyengi -장이/명이 ‘doer of . . .’ was used to indicate profession, as, for example, in tam-cyangi 탕장이 ‘mud wall builder’ (tam 담 ‘wall’) and stuy-tyangi 심장이 ‘beltmaker.’ The suffix -nach -낯 ‘piece, unit,’ a doublet of the noun nath 날 ‘id.,’ is seen in psol-nach 빛날 ‘rice grains,’ sam-nas 삼 낫 ‘hemp stalks,’ pyes-nach 백년 낫 ‘rice stalks,’ and tays nach 타년 낫 ‘bamboo pieces.’ The suffix -pal -발 in pis-pal 빗발 ‘streaks of rain’ and hoy-pal 흔발 ‘sun rays’ was similarly used to indicate noun quality; Wall/wal/발/왈 in kul-Wall/kul-wal 글발/글왈 ‘letter, writing’ is said to be a lenited form of this same suffix.

There were several quasi-plural suffixes in Late Middle Korean.17 The best-known of these, -tolh - لذلك ‘and others,’ is seen in ahoy-tol 아호일 ‘children,’ POYK-SYENG-tol 百姓들 ‘the people,’ and CWONG-CHIN-tolh 宗親들 ‘royal clansmen.’ In Late Middle Korean this suffix -tolh -[attr] was a general, unmarked pluralizer. In contrast, the suffix -nay -네 ‘and other esteemed persons’ functioned as an honorific plural: Ema-nim nay mwoy-zokwo nwuuy-nim nay tepule cukcahi nakani 어마님내 외숙고 누의님내 다브러 즉자히 나가니 ‘(They) proceeded at once, escorting the respected mothers, together with the respected sisters.’ There was also a separate plural suffix for pronouns. This suffix, -huy -회, which was a true marker of plural number, is seen in ne-huy 너회 ‘you people’ and the polite first-person ce-huy

17 These suffixes did not mark plural number per se; they indicated, rather, that the noun was representative of a group.
저희 ‘we (humbly).’ However, it was not used with first-person na 나, because that pronoun had the suppletive plural wuli 우리 ‘we.’ All of these plural pronouns could also take -tolh as a suffix, further demonstrating the function of the latter to mark a noun as part of a group; e.g., wuli-tolh 우리들 ‘we,’ nelhuy-tolh 너희들 ‘you people.’

Honorisctcs and titles were suffixed. The honorific -nim ‘esteemed,’ as in apa-nim 아바님 ‘respected father,’ ema-nim 어마님 ‘respected mother,’ was derived from the native noun nim 님 ‘master.’

A large number of suffixes were imported from Chinese, and for the most part these occurred with Sino-Korean vocabulary. But some were also used with native vocabulary. For example, Sino-Korean -kan 간 ‘room’ (間) was combined with the native word twuy 뒤 ‘rear’ in twuys-kan 뒷간 ‘toilet.’

There were also Sino-Korean suffixes naturalized enough to obscure their Chinese origin; for example, -kyeng -경 ‘situation, state,’ which is seen in mozoms-kyeng 모즘경 ‘state of mind,’ was a native development of Sino-Korean kyeng (景) ‘bright, luminous, view, scenery.’

Korean numerals were, and are, a class of uninflected words much like nouns. The cardinal numerals occurring in Middle Korean were: honah  ‘1,’ twulh 둟 ‘2,’ seyh 둘 ‘3,’ neyh 넉 ‘4,’ tasos 다섯 ‘5,’ yesus 여섯 ‘6,’ nilkwup  ‘7,’ yetulp 여덟 ‘8,’ ahwop 아홉 ‘9,’ yelh 엿 ‘10,’ sumulh 스물 ‘20,’ syelhun 셔흔 ‘30,’ mazon 마흔 ‘40,’ swuyn 쉰 ‘50,’ yesywuyn 여순 ‘60,’ nilhun ﾟ ‘70,’ yetun 여든 ‘80,’ ahon 아흔 ‘90,’ won 옛 ‘100,’ cumun 층 ‘1,000.’ As modifiers (e.g., twu kalh 두 갯 ‘two knives’), the first six of these have different shapes: hon ﴿ ‘one,’ twu 두 ‘two,’ se/sek 세/석 ‘three,’ ne/nek 네/넉 ‘four,’ tay 타 ‘five,’ yey/yes 예/예 ‘six.’ Ordinal numerals were formed by attaching the suffix -cahi/chahi to the cardinal numerals; e.g., yetulp-cahi 여덟자히 ‘eighth,’ twul-chahi 둘자히 ‘second.’ It can be surmised that the basic form of the suffix was -cahi, particularly because that form was also found after classifier constructions; e.g., nilGweys-cahi 님物件자히 ‘seventh day’ (1446 Sŏkpo sangjŏl 24:28; 1461 Nŭngŏm kyŏngŏnhae 7:23). The initial aspiration of the alternate form -chahi thus would appear to come from metathesis of the final -h of a preceding numeral, e.g., seyh ‘three’ + -cahi → sey-chahi 세차히 ‘third.’ But note that the aspirated form could also be found after numerals without a final -h: tasos-chahi 다섯차히 ‘fifth,’ yesus-chahi 여섯차히 ‘sixth’ (1459 Wŏrin sŏkpo 9:36–37). In any case, the suffix was commonly contracted to -cay(chay); e.g., yesus-cay 여섯채 ‘sixth’ (1465 Wŏn’gak kyŏngŏnhae 1.1-2:179), ahop-chay 아홉채 ‘ninth’ (1465 Wŏn’gak kyŏngŏnhae 1.2-2:154), twul-chay 둘채 ‘second’ (1465 Wŏn’gak kyŏngŏnhae 2.3-2:8). In addition, it is worth noting that (in contrast with its Contemporary Korean reflex -ccay), this ordinal suffix also appeared after the cardinal numeral ‘one’ in the sixteenth century: honas-cay 훗날채 ‘first’ (1587 Sohakŏnhae 5:16). (The form is not attested in texts from the
fifteenth century.) When used in modifier constructions, the suffix took the form cas/chas; (the -s is the genitive particle) e.g., sey-chas hoy 셋챗 히 ‘the third year’ (1459 Wŏrin sŏkpo 2:49). However, as a modifier, the ordinal ‘first’ had the suppletive form ches; e.g., ches kwo.c_i 찰 고지 ‘first flower’ (1481 Tusi ᄄᆞᆡᇰ 25:41). To count days, special words were used: holo 흔 ᆫ ‘one day,’ ithul 이를 ‘two days,’ saol 사올 ‘three days,’ naol 나올 ‘four days,’ ta.ssway 다째 ‘five days,’ ye.ssway 여째 ‘six days,’ nilGwey 닐웨 ‘seven days,’ yetolay 여들래 ‘eight days,’ aholay 아홀래 ‘nine days,’ yelhul 염-horizontal ‘ten days.’ Although these forms have reflexes still used today, the Middle Korean morphology was remarkable. As will be explained below, ‘seven days,’ ‘six days,’ ‘five days,’ ‘four days,’ ‘three days,’ ‘two days,’ ‘one day,’ ‘first’ had the suppletive form ches; e.g., ches kwo.c_i 찰 고지 ‘first flower’ (1459 Wŏrin sŏkpo 2:49). To count days, special words were used: holo 흔 ᆫ ‘one day,’ ithul 이를 ‘two days,’ saol 사올 ‘three days,’ naol 나올 ‘four days,’ta.ssway 다째 ‘five days,’ ye.ssway 여째 ‘six days,’ nilGwey 닐웨 ‘seven days,’ yetolay 여들래 ‘eight days,’ aholay 아홀래 ‘nine days,’ yelhul 염-horizontal ‘ten days.’ Although these forms have reflexes still used today, the Middle Korean morphology was remarkable. As will be explained below, holo 흔 ᆫ ‘one day’ went back to *holol, and this reconstructed form, together with ithul 이를 ‘two days,’ saol 사올 ‘three days,’ naol 나올 ‘four days,’ and yelhul 염-horizontal ‘ten days,’ apparently incorporated a suffix *-(o/um). The shape that ‘two’ took with this suffix was the suppletive form ith-; it is also worth noting that before this suffix se ‘three’ and ne ‘four’ were replaced by the alternate shapes sa- and na-.

The suffix -(o/um) attached to inflecting stems to form nominals. As in Contemporary Korean, it was used both to derive lexical nouns and to nominalize sentences. However, unlike the language today, the morphology of these two uses was different. The rule was that lexical nouns were derived by adding the suffix directly to verb stems, while sentential nominalizations incorporated the volitive -wo/wu-. For example, the noun yelum 여름 ‘fruit’ was derived from the verb stem yel- 열- ‘bear fruit’ plus the suffix -(o/um). But the same verb was nominalized as yelwum 여름 ‘bearing fruit’ (yel- + wu- + -(o/um)) when it functioned as the predicate in a sentential nominalization. Both of these forms occur together in the passage tywohon yelum yelwu. m_i 도훈 여름 여름 ‘the bearing of good fruit’ (1459 Wŏrin sŏkpo 1:12). Other examples of lexical nouns include: salom 사울 ‘person’ (sal- 살- ‘live’), kelum 거름 ‘step’ (ket/kel- 걷/걸- ‘walk’), kulum 그럼 ‘painting’ (kuli- 그리- ‘paint’), elum 어름 ‘ice’ (el- 얼- ‘freeze’). But there were also morphological exceptions. In cases where nominalizations had become frozen as lexical items, the nouns included occurrences of the volitive -wo/wu- plus the nominalizing suffix -m; for example, chwum 쩔 ‘dancing’ (chu- 쩔 ‘dance’), wuzwum 우름 우름 ‘weeping’ (wul- 울- ‘weep’). In addition, a few lexical nouns were derived with the suffix -am/em -암/염: mwutem 무덤 ‘grave’ (mwut- 문- ‘bury’), cwukem 주 jim ‘corpse’ (cwuk- 죽- ‘die’), kwucilam/kwucilem 구지람/구지림 ‘scolding’ (kwucit- 구진- ‘scold’).

Another suffix used to derive nouns from verbs was -i. This suffix was remarkably productive in Middle Korean; the nouns derived with it include wuzwumGwuzi 우صوم우 ‘laughter,’ cwukxalsi 죽사리 ‘life and death,’ kul-cizi 글자시 ‘literary composition’ (kul 글 ‘writing, letter’ ciz- 짓- ‘compose’), hali 화리 ‘slandering’ (hal- 할- ‘slander’), etc.
The suffix -kay/key similarly attached to verb stems; for example, cipkey 집게 ‘tweezers, tongs’ (cip- 집- ‘pick up’), nolkay/nolGay 돌개/ 돌개 ‘wings’ (nol- 돌- ‘fly’), and twupkey 돌게 ‘lid’ (twuph- 돌- ‘cover’). Nouns such as pwuchey 부채 ‘fan’ (pwuch- 꾸- ‘fan’), kozGay 쿤 ‘scissors’ (koz- 쿤- ‘cut’), and twulGey 두레 ‘circumference’ (twulu- 두르- ‘surround’) also etymologically contained occurrences of this suffix.

Though it is the most productive nominalizing suffix in the language today, -ki was rarely used in Middle Korean. But it did occur. For example: pat nonhwoki 받 논호기 ‘dividing the fields’ (1447 Sŏkpo sangjŏl 9:19b), kul suki wa kal psuki wa 글스기와 갈쓰기와 ‘wielding pen and sword’ (1481 Tusi ônhae 7:15a).

The nominal suffix -(o/u)y attached to adjectives. For example, khuy 쿠 ‘size’ (khu- 크- ‘big’), kiphuy 기뻐 ‘depth’ (kiph- 깊- ‘deep’), mwophoy 노っぽ ‘height’ (mwoph- 높- ‘high’), nepuy 너뻐 ‘width’ (nep- 넓- ‘wide’), kiluy 기럭 ‘length’ (kil- 길- ‘long’), etc.

5.4.1.3 Verbal suffixes

Suffixes used to derive verbal stems can be roughly divided into two groups. Those attached to nouns were few in number but interesting nonetheless. They include such morphemes as the suffix -k seen in the derivation of the verb mwusk- 묶- ‘tie’ from the noun mwus 묶 ‘bundle,’ and the suffix -i- used to derive cahi- 자히 ‘measure’ from cah 장 ‘ruler’ (an early loan from Chinese). The other group attached to verb or adjective stems. These suffixes in turn were divided into causatives and passives. There were four suffixes used to derive causatives. By far the most important of these were (1) -hi/ki/ Gi/ i- and (2) -(G)wo/(G)wu- (which was also sometimes realized as -hwo/ hwu- or -kwo-). But there were also some rare instances of causatives derived with (3) -h- and (4) -o-.

Causatives The phonological shape of (1) depended upon the final segment of the stem to which it attached: after /p, t, c/ the allomorph was -hi-; after /m, s/, -ki-; after /z, l/, -Gi-. After all other consonants or a vowel, the shape of the morpheme was -i- (or -y-). Examples: neph- 네혀 ‘widen’ (nep- 넓- ‘wide’), kwuthi 구티 ‘harden’ (kwut- 굳- ‘hard’), nuchi 느치 ‘delay’ (nuc- 늦- ‘late’), anchi 안치 ‘seat’ (anc- 앉- ‘sit’), swumki 숨기 ‘conceal’ (swum- 숨- ‘hide’), paski 밧기 ‘undress (someone), strip’ (pas- 밧- ‘undress, take off’), wuzGi- 웅이 ‘make laugh’ (wuz- 웅- ‘laugh’), cizGi- 짜이 ‘have build, make’ (ciz- 짜- ‘build, make’), malGi- 말이 ‘stop (someone or something)’ (mal- 말- ‘stop (doing something)’), meki 먹기 ‘feed’ (mek- 먹- ‘eat’), molki 물기 ‘clarify, purify’ (molk- 물- ‘clear’), syey 세 ‘erect, build, make stand’ (syе- 서- ‘stand’), nay 내 ‘take out, give birth’ (나- 나- ‘come out, be born’). Of these, a number of the verb stems ending in k or lk (which in
the fifteenth century had been followed by -i-) came, in the sixteenth century, to be followed by the allomorph -hi-. Examples: nikkhyese 니끼세 ‘having made oneself familiar with’ (1587 Sohak ḏŏnhae 2:41), polhikey 폴키에 ‘(so that it is) made clear’ (1587 Sohak ḏŏnhae 6:11), CHYEN khukey polkhil chen 뉴 크게 풀길 친 ‘(the character read) chen (that means) “brighten greatly”’ (1576 Sinjŭng yuhap 2:42), TING molkhil ting 쩝 풀길 딩 ‘(the character read) ting (that means) “purify”’ (1576 Sinjŭng yuhap 2:9). Verb stems ending in -lo/-lu-, such as wol-/ 오-. ‘go up’ and hulu- 흐르- ‘flow,’ were divided into two classes with respect to their phonological behavior with this suffix. One is represented by hulu- 흐르- with the derived causative hulli- 흐리-, the other by wolo- 오-. which had the derived causative wolGi- 을이-. Example: [SSYEK-PYEK]_ey mo.l_ol wolGisya 石壁에 몬 올이사 ‘He rode his horse up the stone precipice’ (1447 Yongbi ोչ’on ka 48). The causative of ho- ひ- ‘do, is’ was hoy- 흐(으-) (or sometimes hoyGwo- 희오-). It was widely used in Middle Korean. The adverbial form of this causative, hoyye 흐여, plus the adverb intensifying suffix -kwom -곱, combined to form the construction hoyyekwom 흐여곱 ‘letting, making, forcing . . . ’ (the reflex of which is hayekum in Contemporary Korean).

The second most productive causative was (2), -(G)wo/(G)wu- 오/우-. As explained above, this morpheme had an initial voiced velar fricative /G/. The textual evidence for this deduction is, in a nutshell, as follows: first, note that morphemes beginning with a vowel normally gained an excrescent -y after an i- or y-. For example, mwuy- 뭐- ‘move’ plus the volitive morpheme -wo/wu- 오/우- produced mwuyyywu- 뭐유-. However, the causative -(G)wo/(G)wu- did not develop an initial -y in this environment: mwuy- 뭐- ‘move’ + -(G)wo/(G)wu- → mwuy.wu- 뭐우-. The transcriptional difference can only be explained by assuming there was an initial consonant to block the liaison, which in this case must have been G.18

The velar fricative was also sometimes realized after /z/ or /l/; e.g., nizGwu- 닐위- ‘get joined, is linked’ (niz- 닐- ‘join, link’), ilGwu- 일우- ‘accomplish, achieve’ (il- 일- ‘happen’), memulGwu- 면물우- ‘had stay,’ elGwu- 열우- ‘made freeze.’ In other environments, including after obstruents, the morpheme sometimes began with a vowel; e.g., mwotwo- 모도- ‘collect’

18 The philological picture is complicated somewhat by the transcription koliWomye 고리범제 ‘while concealing’ (1459 Wŏrin sŏkpo 18:39) (koli- 고리- ‘hide’), which attests a voiced labial fricative, W, instead of a velar. This form with a labial, koliWo-, occurred only once in the textual corpus, and the causative stem ‘conceal’ was otherwise written as koliGwo-; e.g., koliGwon 고리온 (1459 Wŏrin sŏkpo 9:31b), koliGwota 고리오다 (1459 Wŏrin sŏkpo 2:2a). But there are also three attestations of epsiWu- 엄시보- for the stem epsiGwo- 엄시오- ‘eliminate, get rid of, do away with’: epsiWo.n.i 엄시보니 (1591 Wŏrin sŏkpo 23:65b), epsiWozolWa 엄시보술박 (1591 Wŏrin sŏkpo 17:77a), epsiWozowWa 엄시보술박 (1463 Pŏphwa kyŏng ḏŏnhae 2:15-16). It is not clear whether these transcriptions of a labial should be taken as scribal errors or evidence that a doublet existed.
passive constructions, e.g., la plus belle asseoir ‘to seat the most beautiful’), etc. However, a stem-final obstruent also sometimes became aspirated when followed by this morpheme; e.g., nathwo- 나도- ‘appear’ (nat- 날- ‘show’). The appearance of aspiration shows that an allomorph of the morpheme was -hwol/hw- -형/형-. More examples: [PYENG-MA] lol mechwuesini 兵馬를 머추어서니 ‘he held back his soldiers and horses’ (1447 Yongbi ᄇᆞᆷ’on ka 54) (mec- 멧- ‘stop’ was not attested in Middle Korean, but it is found in texts from following centuries), pcak machwol_ssi ’ni 拍 마 후서니 ‘match up with its mate’ (1459 Wŏrin sŏkpo Introduction: 7) (mac- 맞- ‘meet’). In addition, there were a few early occurrences of an allomorph with a velar stop, -kwo-: palols mu.l ul swos-kwononila 바돌며를 속고논니라 ‘made the waters of the sea spew forth’ (1463 Pŏphwa kyŏng onhae 1:51) (swos- 속- ‘spurt out’).

Both causatives, (1) and (2), could occur together; e.g., epsiGwo-epsiGwu- 임시오-업시오- ‘eliminate, do away with, remove’ (eps- 엇- ‘does not exist, there is not’), choyGwo- 적오 ‘fill’ (cho- 적- ‘be filled’), thoyGwo- 틀오- ‘incinerate’ (tho- 틀- ‘burn’), ptuyGwu- 뚫우- ‘float (something)’ (ptu- 뚫- ‘float’), etc. The reverse ordering of the two causatives was also possible: alGwoy- 앞이- ‘inform’ (al- 앞- ‘know’), nizGwuy- 달이- ‘get joined, is linked’ (niz- 달- ‘join, link’), etc.

The transitive verbs nah(o)- 냥- ‘give birth to’ and hut- 홀- ‘scatter’ appear to be derived by adding a suffix -h(o)- to the intransitive verbs na- ‘come out, be born’ and hut- ‘be scattered.’ Moreover, in Middle Korean the act of naming was always expressed by the phrase ilhwum cih- 일 홀 정- ‘name’ plus the verb cih(o)- 정- ‘be linked to’. In Middle Korean the suffix used to derive passives was also apparent; causatives derived from ci- 지- ‘carry on the back’.

In addition to the more common causatives salGi- 살이-, ilGwu- 일우-, etc., a number of l-stem verbs such as sal- 살- ‘live’ and il- 일- ‘happen, rise’ also had causatives derived with the suffix -o-: salo- 사로-, ilo- 이로-, etc. In such cases, the causative pairs differed in meaning. While salGi- 살이- meant ‘to cause to live in some place,’ salo- 사로- meant ‘to save someone’s life, let live.’ The causative ilGwu- 일우- meant ‘to cause to accomplish some goal or task,’ while ilo- 이로- meant ‘to erect a building or tower.’ Examples: cip cwue salGikwo 집 주어 살이고 ‘gave (him) a house and let (him) live there’ (1481 Tusi onhae 24:27), HHANG-PPWOK_hoya eptetiye salosywosye 降服하고 업터디여 사람소서 비니 ‘he surrendered and, throwing himself on the ground, begged “please let me live”’ (1447 Sŏkpo sangjŏl 6:33b), khun [KWONG]_ul ilGwuzoWoni 큰 공을 일우슨 봉니 ‘he achieved a great distinction’ (1447 Yongbi ᄇᆞᆷ’on ka 57), CYENG-SYA_lol ilozoWaci.ngita 精舍물 이르스 바지이다 ‘(I) want to build a monastery’ (1447 Sŏkpo sangjŏl 6:24a).

Passives Examples of passive stems were extremely rare in Middle Korean – just as they are in Contemporary Korean. The suffix used to derive passives
was -hi/ki/Gi/-, which, for the most part, was the same as the causative suffix given in (1), above. The one exception was that the passive of mek- 먹- ‘eat,’ mekhi- 먹기- ‘be eaten,’ was formed with the allomorph -hi-, while, in contrast, the causative of the same verb, meki- 먹기- ‘feed,’ was formed with the allomorph -i-. More typical examples of passive stems include: caphi- 자 피- ‘get caught’ (cap- 잡- ‘grab’), telmki- 덮기- ‘be dyed’ (telm- 덮- ‘dye’), pwoy- 보- ‘be seen’ (pwo- 보- ‘see’), etc. A matter of philological note is that, when used to form passives with stems ending in -y-, the initial of the suffix -Gi- was transcribed with the double zero symbol “€.” For example, moyOOi. nonila 늘이 ‘is bound to, by’ (1447 Sŏkpo sangjŏl 13:9b), is derived from moy- 묻- ‘bind, tie’; kwoyOOye 괴이 ‘being loved by someone’ (1446 Hunmin chŏngŭm haerye 21) is derived from kwoy- 괴- ‘love.’

5.4.1.4 Adjectival suffixes

Just as was true of the verbal suffixes, the adjectival suffixes, too, were divided into two classes. One consisted of suffixes used to convert nouns into adjectives. The most productive of these suffixes was -toWoy- 토요-. It had various allomorphs: following a stem ending in any consonant except /l/, and before another suffix beginning with a consonant, the suffix took the form -toWoy- 토요-; if it was followed by a vowel, the suffix was realized as -toW-. 토요-; after a vowel or /l/ and before a consonant, the suffix was -loW- 受요-. Examples: cywupyen_toW- 주변요- ‘adaptable,’ NGUY-SIM_toW- 恐心요- ‘doubtful,’ SSYWUW-KHWO_loW- 受苦요- ‘troublesome,’ woy_loW- 외요- ‘lonely,’ kyelu_loW- 겨르요- ‘leisured,’ etc. The suffix -toWoy- 토요- formed a doublet with another suffix that attached to nouns, -taW- 타요- (which was the direct ancestor of the Contemporary adjectival suffix -tap/taw-). Like -toWoy- 토요-, -taW- 타요- was extremely productive in Middle Korean; here are examples: PEP_taW- 當 ‘legal,’ LYEY_taW- 禮 ‘courteous,’ silum_taW- 시름 ‘worrisome.’ The adjective alomtaW- 아름 ‘beautiful’ also appears to have been derived with this suffix, but the noun *alom is not attested in the textual record. Traces of yet another, earlier adjectival derivation can be found in the adjectives pul- 불 ‘fire’ and mul 물 ‘water’ at some older stage of the language.

The second class of adjectival suffixes consisted of morphemes that attached to inflecting stems. These included three etymologically related forms: -Wo/Wu- 움/焐-, -aW/eW- 애/애-; -al/gal-; and -kaW- 감-. The suffix -Wo/Wu- 움/焐- converted verb stems into adjective stems. It had three basic allomorphs: -W- after a vowel; -Wo/Wu- after a z; and -po/ pu- after all other consonants. Examples: muiW- 멀- ‘is hateful’ (mui- 므- ‘hate’), kuliW- 그립- ‘is longed-for’ (kuli- 그리- ‘long for’), twuliW- 두림- ‘is
frightening’ (twuli- 두리- ‘fear’), nwollaW- 놀람- ‘is surprising’ (nwolla- 놀라- ‘surprise’), wuzWu- 웃보- ‘is laughable’ (wuz- 웃- ‘laugh’), mitpu- 민브- ‘is believable’ (mit- 민- ‘believe’), cephu- 저프- ‘is scary’ (ceph- 청- ‘be afraid of’), nwuyuspup- 뉘웃 bộ- ‘is regrettable’ (nwuyuch- 뉘웃- ‘regret’), ispu- 잇브- ‘is tired’ (ich- 잇- ‘tire out’), paspo- 밋반- ‘is busy’ (pach- 밋- ‘busy (a person)’), kwolpho- 꼭포- ‘is hungry, (stomach) is empty’ (kwolh- 꼭- ‘remain unfilled’), alpha- 알陂- ‘is hurt, is sick’ (alh- 알- ‘ail’), sulphu- 슬프- ‘is sad’ (sulh- 슬- ‘grieved at’), kispu- 깃뿐- ‘is happy’ (kisk- 까- ‘rejoice’), kospo- 켥뿐- ‘is hard, trying’ (kosp- 켥- ‘make efforts’), etc. It is interesting that many of the verb forms in the above list were lost in the Early Modern period, leaving the derived adjectives as isolated lexical items. In addition, among the verbs which do still exist, most native speakers are not aware of a connection between kwolpho- 꼭- ‘remain unfilled’ and alh- 알- ‘ail’ and the corresponding derived adjectives, because the /l/ in kwolpho- 꼭- ‘(stomach) is empty’ and alpha- 알陂- ‘is hurt, is sick’ has elided. In Middle Korean, the productivity of this suffix extended to derived verbals such as solang_ho- 속랑횠- ‘think of, love,’ kamtwong_ho- 감통횠- ‘is (emotionally) moved,’ and nwo_ho- 노횠- ‘become angry’: solang_hoptwota 속랑횠돋다 ‘is lovable’ (1481 Tusı önhae 21:40), KAM-TTONG hopkwo 감동하고 (1463 Pŏphwa kyŏng ônhae 3:115) ‘is moving,’ NWＯ_hoWŏn 혈호복 ‘anger-causing’ (1459 Wŏrin sŏkpo 17:74). However, the suffix is of only etymological significance today.

The morpheme -aW/eW- -알/열- also converted verbs into adjectives, but it only attached to stems ending in the vowel i-, which then elided. Examples: askaW- 앉갑- ‘regrettable’ (aski- 앉기- ‘spare, grudge’), culkeW- 출걀- ‘is enjoyable’ (culki- 줄기- ‘enjoy’), puskuleW- 못그럽- ‘is shameful’ (puskuli- 못그리- ‘feel shame’), mukeW- 묵갑- ‘is heavy’ (muki- 묵기- ‘make heavy’), tapskaW- 탕갑/닭갑- ‘is stifling, stuffy, cramped’ (tapski- 탕기/닭끼- ‘feel confined, cramped’). In at least one stem, however, the stem-final vowel i- was realized as y- and did not drop, the suffix developing an excrecent y-instead: muzuuyeeW- 민식열- ‘is frightening’ (muzuy- 민식- ‘be afraid of’).

The suffix -kaW- -각- attached to adjective stems. Examples: nyetkaW- 난각- ‘is shallowish’ (nyeth- 난- ‘is shallow’), maskaW- 맛각- ‘is appropriate’ (mac- 맛- ‘is in harmony with, correct’), kaskaW- 깡각- ‘is near’ (*kac- ‘is near’), noskaW- 낙각- ‘is low’ (noc- 낙- ‘is low’).

5.4.1.5 Adverbia
tive suffixes

Adverbia
tive suffixes attached to nouns or inflecting stems. The adverbs mwomzwo 몸소 ‘personally, by oneself’ and swonzwo 손소 ‘personally, with one’s own hands’ were derived from the nouns mwom 몸 ‘body’ and swon 손 ‘hand’ with the suffix *-swo. This particular suffix was not attested in any other words, but it is believed to have had an initial -s that assimilated the
voicing of the preceding nasal, \(m\)- or \(n\)-. This supposition is buttressed by the fact that an unvoiced initial was in fact recorded in the sixteenth century, in mwomswọ 몸소 (1587 Sohak 옹행 6:25), a transcription assumed to represent a dialect without the voicing rule. The same is true of the spelling swonswo 손소 found in texts dating from the early seventeenth century (e.g., 1617 Tongguk sinsok samgang haengsil to, Hyojado 2:43). Both unvoiced forms almost certainly must have existed in the Middle Korean period. Yet another twist in the sixteenth-century textual record can be seen in the transcription swoncwo 손조 (1517 Po˘nok Pak T’ongsa 1:63), which shows the change \(z > c\). The same change was attested in texts written around the beginning of the seventeenth century, when the form mwomcwo 몸조 was recorded (e.g., Tongguk sinsok samgang haengsil to, Ch’ungsindo 1:36).

In any event, only unlenited mwomswọ and swonswu appear in the central dialects today.

The adverbs ili 이리 ‘this way,’ kuli 그리 ‘that way,’ and tyeli 더리 ‘that way (over there)’ were originally derived from the deictic pronouns \(i\) 이 ‘this,’ \(k\) 그 ‘that,’ and \(t\) 더 ‘that over there’ plus the directional particle \(li\) 리, and then became fossilized as lexical items. Similarly, the adverb amoli 아모리 ‘somehow, however much’ was derived from *amo, an older form of amwo 아모 ‘any person, any thing,’ plus \(-li\) 리. The Contemporary reflex of this adverb, amwuli, is used only in negative contexts, but such was not the case with the Middle Korean word; e.g., CHIK\_un amoli homyen honon kye. ch_ey psunon CCO i la 則은 아모리 흎먼 흠는 거체 쓴는字 라 ‘CHIK is a character used in some way as a particle’ (144? Hunmin ch’hŏng o˘nhae).

Three basic suffixes were used to derive adverbs from inflecting stems: (1) \(-i\), (2) \(-wo/wu\), and (3) \(-key/(koy/kuy)\). Examples of (1) \(-i\): nwophi 노피 ‘highly’ (nwoph - 높 ‘is high’), kili 기리 ‘lengthily’ (kil- 길 ‘is long’), kiph기피 ‘deeply’ (kiph- 깊 ‘is deep’), khi 키 ‘largely’ (khу- 크 ‘is big’), nepi 너비 ‘widely’ (nep- 넓 ‘is wide’), hay 해 ‘numerously’ (ha- 하 ‘is numerous’), niki 너기 ‘thoroughly, ripely’ (nik- 닭 ‘ripen’), niluli 니르리 ‘so as to lead to’ (nilu- 니르- ‘lead to, arrive’), kotok_hि 기득히 ‘filled completely’ (kotok_ho- 기득히 ‘is full’), ile_hি 이리히 ‘thusly’ (ile-ho- 이리히 ‘is thus’), etc. Examples of (2) \(-wo/wu\): twolwo 도로 ‘again, back’ (twol- 도로- ‘turn’), nazwo 나소 ‘preferably’ (naz- 날 ‘is better’), woolwo 오로 ‘wholly’ (wool- 오로 ‘is intact’), kwolvGwo 곱고 ‘evenly, uniformly, equally’ (kwol- 고로 ‘make it even, level it off’), kiwulwu 기우루 ‘askew’ (kiwul- 기울 ‘is slanted, leaning’), etc. Examples of (3) \(-key/(koy/kuy)\): ipkey 입게 ‘so as to be confused’ (ip- 입 ‘get confused’), kakoy 가게 ‘so as to go’ (ka- 가 ‘go’), khukey 크게 ‘widely’ (khu- 크 ‘is large’), kwopkoy 껍기 ‘so as to double’

19 The G in this form (transcribed with the symbol \(\odot\)) apparently belonged to the verb stem.
(kwop- 껀- ‘double’), cyekkuy 격히 ‘so as to grow small’ (cyek- 격- ‘is small’). The basic form of this morpheme was -key; -koy and -kuy were much less common, minimal-vowel variants. In any case, the initial consonant of all these variants lenited to G after i, y; e.g., towoyGey/towoyGoy/towoyGuy 냬에/님이/님이 ‘so as to become’ (towoy- 냬- ‘become’).

In Middle Korean, all three adverbative suffixes, (1) -i, (2) -wo/wu, and (3) -key/(koy/kuy), were remarkably productive. Today, however, only -key occurs freely with inflecting stems, and, for the most part, occurrences of -i and -wo/wu are confined to a fixed set of lexical items.

5.4.2 Nouns and noun phrases

When followed by a particle, the shapes of many Middle Korean nouns varied. Some of these variations were predictable from the phonological environment. Predictable alternations can be seen, for instance, in nouns that ended in c, ch, z, ph, th, or a consonant cluster (other than lk or lp), because these consonants only occurred before a vowel. Thus the words ‘flower’ and ‘outside,’ for example, were realized as kwoc 곽 and pask 밖 before a vowel, but as kwos 곽 and pas 밖 before a consonant. As was explained earlier, certain distinctions were neutralized before consonants.

A similar kind of predictable alternation was found in words that ended in h. For example, the word ‘stone’ was pronounced (and spelled) twol 돌 in isolation, but an h appeared before a particle beginning with a vowel: twol.h_i 돌히, twol.h_ay 돌해, twol.h_ol 돌로, twol.h_olwo 돌로. And when the noun was followed by the comitative particle kwa, the h was realized as aspiration: twol_khwa 돌콰. In the Middle Korean corpus, there are about eighty nouns like this that can be confirmed as ending in a morphophonemic h. Here is a sampling:

nalah 나라 h ‘country,’
stah 하 h ‘earth,’
hanolh 한돌h ‘stone,’
naholh 나돌h ‘country, corner, origin,’
molh 므돌h ‘village,’
ptulh 굴돌h ‘garden, yard,’
swuh 수돌h ‘forest, thicket,’
wumh 원돌h ‘dugout mud hut,’
konolh 곤돌h ‘shade,’
mwoh 모돌h ‘corner,’
kowolh 곰돌h ‘county,’
syewulh 심물h ‘herbs, greens,’
malh 말물h ‘wheat,’
cwoh 조물h ‘millet,’
alh 알물h ‘egg,’
kwoh 고물h ‘nose,’
nimah 니마물h ‘forehead,’
polh 폴물h ‘arm,’
solh 속물h ‘flesh,’
amh 암물h ‘female,’
swuh 수물h ‘male,’
tyeh 다물h ‘flute,’
nolh 노물h ‘blade, warp,’
malh 말물h ‘stake,’
sywoh 요물h ‘laity,’
kinh 김물h ‘string,’
nwoh 노물h ‘rope,’ etc. In the fifteenth century the h at the end of many of these nouns
was already showing signs of instability. The word hanolh 하늘 ‘heaven’ is a representative example. In some passages, the word was attested with a final h; e.g., hanol.h_i 하늘하, hanol_khwa 하늘과. But there were almost as many textual occurrences of the word without the consonant, e.g., hanol.i_i 하늘리, hanol_Gwa 하늘와. Many of the other nouns cited above were also sometimes transcribed without a final h, e.g., kozol_Gwa 고졸와 (1481 Tusi ᄇᆡᇰ 8:59), kil_lwo 길로 (1481 Tusi ᄇᆡᇰ 22:30). The h at the end of all these words was later lost during the Early Modern period. But texts published up until the end of the sixteenth century give little indication of the change. The transcriptions in these late Middle Korean texts barely differ at all in this respect from those that had been written a century and a half earlier, in the middle of the fifteenth century.

Some shape alternations were not morphophonemic, however. Three classes of nouns with unpredictable alternations relate to the lenition of the velar G discussed above. (1) The noun namwo 나무 ‘wood, tree,’ for example, appeared before particles variously as follows: nam.k_i 남기, nam.k_ol 남돌, nam.k_oy 남기, nam.k_olwo 남돌로, namwo_wa 나모와, etc. In other words, in absolute position or before a consonant, the word was realized as /namwo/, and before a vowel it was /namk/. The same kind of alternation is seen in kwumwu 구멍 ‘hole,’ nyenu 뉘 ‘other, different,’ and pwulmwu 불موا ‘bellsows’; this last word, for example, appeared not only as pwulmwu 불موا, but also as pwulm.k (i) 붊기, pwulm.k (ul) 붊울. (2) When combined with a particle, the noun nwolo 노로 ‘deer’ was realized as /nwolo/, and before a vowel it was /nwolG/. Other nouns with this kind of alternation include nolo 노로 ‘ferry,’ silu 시루 ‘steamer,’ colo 콜로 ‘handle,’ and cyalo 자로 ‘sack.’ (3) The noun azo 아소 ‘younger brother’ showed a similar alternation after a /z/: az.G_i 아지, az.G_oy 아지, az.G_ol 아지요, azo_wa 아소와. The same was true of yezu 여저 ‘fox.’ The noun mwuzwu 무수 ‘Korean radish, daikon’ also seems to have belonged to this third class of irregular nouns because of attestations such as mwuz_ila 무이라 ‘it’s a radish’ (1482 Kŭmgang kyŏng samga hae 3:51).

Yet another class of nouns had shapes that alternated under similar conditions. The word molо 모로 ‘roof ridge’ plus a particle produced the forms mol.l_i 몰리, mol.l_oy 몰리, mol.l_ol 몰로, etc. The alternation in this case was /molо/ ~ /molɿ/. The noun holo 홀로 ‘one day’ showed the same kind of alternation, /holо/ ~ /holɿ/.

The alternations in all four of these noun classes can be explained historically. The alternation /namwo/ ~ /namk/ in (1), for example, allows the earlier form of ‘wood, tree’ to be reconstructed as *namok. And internal reconstruction of a velar is supported here by comparative evidence from the modern dialects; e.g., Pukch’ŏng nangk-, kwungk-, Kŏch’ang [pŭngu]. At some point
in time, this velar stop was lost whenever the noun occurred in absolute position or before a consonant, then the vowel assimilated rounding, *namo > namwo. On the other hand, when the noun occurred before a vowel, it was the vowel in the second syllable that elided instead of the consonant: *namok > namwo. Similar reasoning allows the reconstruction of *nwolok as the earlier form of nwoło 노로 'deer,' except that in this case the velar stop *k lenited to the voiced velar fricative /G/. The alternations of molo 모로 ‘roof ridge’ and holo 홀로 ‘one day’ were a little different because they involved the liquid /l/ instead of a velar. These two words can be reconstructed as *molol and *holol. Moreover, the ordinal *holol ‘one day,’ which apparently incorporated a suffix *-(ofu)l, can in turn be surmised to have developed from a still earlier *holol.

One more important piece of evidence for reconstruction is provided by the pronoun musu ~ musuk 민스/민숙 ‘what’: musu kes kwo 민스컷고 ‘what is it?’ (1447 Sŏkpo sangjŏl 21:215); musu.k_i kispwu.m_iG_wo 민스기 깃부미리오 ‘what is joy?’ (1464 Sŏnjong yŏngga chipŏnhae 2:7). As was true for the nouns of (1) and (2), the final consonant of this reconstructed word, *musuk, also elided in absolute position or before a consonant. But, unlike those other nouns, the vowel in the second syllable did not elide when the word appeared before a vowel: e.g., musu.k i. Why did the vowel not elide? The difference can be found in the suprasegmentals. In all four of the above classes of nouns, the second syllable carried a low tone, e.g., nàmwò, nwôlo, while, in contrast, the second syllable of musuk was marked with a high tone: mûsu ~ müsûk. A high-pitched vowel was apparently not subject to the same rules of elision that applied to minimal vowels with a low pitch.

Another kind of elision can be seen in nouns that ended in the vowel /i/. When such nouns were followed by the genitive particle oy/uy or the vocative a, the noun-final vowel often dropped. For example, the genitive of api 아비 ‘father’ was a.p_oy 아비; that of emi 어미 ‘mother’ was e.m_uy 어미; and the vocative of aki 아기 ‘child’ was a.k a 아가. Similarly, the genitives of nulkuni 늘그니 ‘old person’ and PYENG_honi 病 혼니 ‘sick person’ were nulku.n_uy 늘그니 and PYENG_ho.n_uy 病 혼니. In addition to these changes, there is at least one attestation of the final vowel of kaci 가지 ‘branch’ dropping in front of the locative particle ay: ka.c_ay 가재 (1447 Yongbi ᄇᆡ ᄇᆡ ᄲ 7).

A final note about noun morphology. The words say 새 ‘new, fresh’ and nol 늘 ‘raw, unripe’ are used only as prenouns in Contemporary Korean, but in Middle Korean they were nouns, appearing in absolute position or before particles. Examples: say_wa nol_koniGwa 새와 늘 먹니와 ‘the new and the old ones’ (1461 Nangŏm kyŏng ŏnhae 7:83); say_lol mas_pwokwo 새를 맛보고 ‘taste the new one, and . . .’ (1481 Tusi ŏnhae 15:23); no.l ol mekumyen 늘을 먹면 ‘if one eats raw ones’ (1461 Nangŏm kyŏng ŏnhae 8:5).
5.4.2.1 Pronouns

The morphology of pronouns was much the same as that of nouns, but there were a number of particularities worth noting. Pitch behavior was especially irregular. The first-person pronoun na ‘I, me’ carried a low pitch in isolation, הנה, but was marked with a high pitch before the topic particle: nán ~ nahňon ‘나, 나’. When the subject particle i was incorporated into the syllable as a glide, the pronoun was marked with a high tone, 내; when combined with the genitive particle oy as 난역, the syllable was pronounced low. Finally, before the object marker, na was marked with a rising tone: 날 ~ 날로. The second-person pronoun ne ‘you’ was also irregular, though somewhat less so. In most environments, including in absolute position and before most particles, it carried a low pitch, 너; when the genitive marker uy was incorporated into the syllable as an offglide, the syllable was, again, low, 네. But when the subject marker iy was the particle included in the syllable, the high tone of the particle was not lost and the syllable was marked as a rising tone (low + high): 네. The interrogative pronoun nwu 누 ‘who’ plus the subject particle had a high pitch, nwuy 누, but when the pronoun combined with the genitive particle, the syllable was marked as rising, nwuy 누.

The interrogative pronoun nwu was also interesting for another reason. It combined directly with the interrogative ending -kwo to form nwukwo 누고 or nwukwu 누구. Examples: 노은 on nwukwu 누운 누군 ‘who is the other person?’ (1472 Mongsan Hwasang pŏbŏ yangkok ŏnhae 20), pwuthyey nwukwo 부터 누고 ‘who is the Buddha?’ (1459 Wŏrin sŏkpo 21:195). In the Early Modern period, this fused form nwukwo/nwukwu became lexicalized, and in many usages replaced nwu as the interrogative pronoun ‘who.’ The interrogative pronoun musuk ‘what,’ which was briefly discussed above, sometimes appeared in the alternative form musum. Examples: musum_kwa kothonywo 민습과 군호노 ‘what is it like?’ (1496 Yukcho pŏppodan kyŏng ŏnhae 1:5); musum ZYWOW-YEK_ulwo 민습 연으로 ‘with what compassionate favor?’ (1447 Sŏkpo sangjŏl 13:25b); musum phyeliGwo 민습 퍼리오 ‘what is spread?’ (1464 Sŏnjong yŏngga chip ŏnhae 2:128). In Contemporary Korean, the interrogative enu ‘which’ is used only as a modifying prenoun, but in Middle Korean it functioned like other substantives. Examples: MYWOW-TTWOW_non enu kwo 妙道논 어느고 ‘which is the mysterious way [of the Buddha]?’ (1464 Sŏnjong yŏngga chip ŏnhae 2:122); enyu kwute 어느 구터 ‘whichever [enemy] is powerful’ (1447 Yongbi ŏch’ŏn ka 47); enul CYWONG_hosilyenywo 어느 從시려노 ‘which one will he wish to follow?’ (1459 Wŏrin sŏkpo 7:26). However, there were also many examples of the word being used adverbially in the sense of ‘how, why, in what way’: enu ta solWol이 어느 다 솔볼리 ‘how can one tell all?’ (1447 Yongbi ŏch’ŏn ka 118). One curious morphological peculiarity of
Middle Korean pronouns was that they developed an excrescent /l/ when used with the instrumental particle (o/u)lwo: nal lwo 날로 ‘as me,’ nel lwo 네로 ‘as you,’ il lwo 여로 ‘with this,’ cel lwo 애로 ‘with that,’ nwul lwo 놈로 ‘as whom.’ At that time, the form cel lwo already had the modern meaning ‘of its own accord, spontaneously.’ Another idiosyncrasy of this class of words was that an object particle (l)ol plus a comitative particle took the form -l_Gwa after pronouns. Examples: nwul_Gwa tamos-hoya 놈과 다웃 흥야 ‘doing together with whom’ (1481 Tusi ònhae 20:8); IN_kwa nal_Gwa pwononi 놈과 날과 보노니 ‘see the benevolent person and me’ (1447 Sökpo sangjôl 13:25). When used with nouns, these two particles normally appeared in the reverse order, (G)wa l_Gwa.

5.4.2.2 Particles
Just as is true in Korean today, there were roughly two kinds of particles in Middle Korean. The first kind consisted of particles used mainly to express the syntactic role of the noun or noun phrase to which they were attached. Korean grammarians refer to these particles as “case particles.” The second type was a general category consisting of postpositions used to express a variety of meanings, including emphasis and focus, attitude, emotion, intent, etc. These are usually referred to as “special particles” (특수조사) or “auxiliary particles” (보조조사).

5.4.2.3 Case particles
Most Korean grammarians recognize seven cases marked by particles: (1) nominative, (2) accusative, (3) genitive, (4) locative-allative, (5) instrumental, (6) comitative, and (7) vocative.

(1) Nominative In Middle Korean, the particle used to mark subjects was i. After consonants, the particle was realized phonologically as /i/; following a syllable ending in a vowel, it was reduced to the semivowel /y/ and incorporated into the syllable as an offglide. When used as an offglide, i affected the tone of a low-pitched syllable, causing it to gain a rising tone. When the syllable was already tonic, however, i produced no change in pitch. Examples: sâlô.m i :샤로미 ‘person’ (sâlôm :샤름); pwûthyè 부터 ‘Buddha’ + i → pwûthyê 부: 테; tôlî 드리 ‘bridge’ + i → tôlî 드리; pwûlhwî 불·휘 ‘root’ + i → pwûlhwî 불·휘.

The subject particle ka does not appear in any texts from the fifteenth century. The earliest attestation yet found comes from a letter believed to have been written by the mother of the famous poet Chông Ch’ŏl in 1572:

Chon kwutoloy cani poy ka seynilesye colwo tonnini.
춘 구든리 차니 비가 세너러서 졌로 돋나니
‘Having slept on a cold floor, my stomach hurt, so I had to go a lot.’
This passage shows that the particle *ka* was used in Korean at least by the latter half of the sixteenth century.

As in Contemporary Korean, the marking of a subject as such was not obligatory, and many subjects were left unmarked. Much the same was true of other “case” particles as well. The decision to use or omit these particles probably had semantic implications similar to those of today, but it is difficult to know for sure.

(2) **Accusative** The particle -(l)ol/ul marked direct objects. When attached to nouns ending in a consonant, the particle took the form ol/ul, with the choice of vowel normally being determined by rules of vowel harmony. Examples: *musu_k ul* 무스글 ‘which one,’ *ptu_t ul* 뽑들 ‘intend, meaning’; *swo.n ol* 소년 ‘hand,’ *nal.h ol* 나라한 ‘country.’ Following vowels, the particle was frequently realized as just the single consonant /l/. Examples: *kachi_l* 가칠 ‘(a serpent bit) magpies’ (1447 Yongbi och’on ka stanza 7), *hanapi_l* 한나필 ‘(believe in Your) Grandfather’ (1447 Yongbi och’on ka stanza 125), *nimkum WUY_l* 남금문로 ‘(renouncing) the rank of king’ (1449 Wörin ch’ön gang chi kok stanza 3). That was especially true when the particle was used to mark pronouns; e.g., *wulil* 우리 ‘us,’ *nwul* 누 ‘whom,’ *nal* 나 ‘me.’ But there were also many occurrences of the form lol/ul after vowels; e.g., *pwuthye_lul* 부텨를 ‘the Buddha,’ *nwu_lul* 누를 ‘whom,’ *cokyas_wol* 직조를 ‘talent,’ *na_lol* 나를 ‘me.’ This latter form is believed to represent a doubling of the particle.

(3) **Genitive** There were two genitive particles in Middle Korean, *oy/uy* and -s. The particle *oy/uy* was used with animates – people and animals. It was a plain marker in the honorific system, with no implication of elevated status. The genitive s (the so-called “medial s” 사이시옷), on the other hand, was used in two different ways: when used with people, it was an honorific marker. Otherwise, it was a generic genitive marker for inanimates. Otherwise, it was a generic genitive marker for inanimates. Examples: *SSYANG_oy HYANG*, *mo.l_oy HYANG*, *swowo HYANG* 象이 족 드리 촨 썰 촨 ‘the scent of elephants, the scent of horses, the scent of oxen’ (1447 Sökpo sangjöl 19:17b), *nalas [SYWOW-MIN] 나랏 小民 ‘the common people of the country’ (1447 Yongbi och’on ka 52), *SYEY-CWON_s SSINU-LUK 世尊人神力 ‘the holy power of Sakyamuni’ (1447 Sökpo sangjöl 6:7b), *cokyas wosolan paskwo KKUU-TTAM_oy wo.s_ol nipoysya 쿠가 오스란 밝고 못들이 오솔 니브샤 ‘(Sakyamuni) removed what were His own clothes and put on the clothes of (His servant) Kudam’ (1459 Wörin sökpo 1:5b). Notice especially the contrastive usage in the last example: here, *cokya* ‘His own,’ which itself is a special polite word, refers to Sakyamuni and is therefore followed by honorific s, whereas the name of his servant Kudam is followed by plain oy.
One final note about the genitive oy/uy. Although this particle was a homophone of the locative marker oy/uy, the two could be distinguished by context. Genitive oy/uy was used with animates, while locative oy/uy was used with inanimates.

(4) Locative There were two basic locative-allative particles, ay/ey and oy/uy. Both were used only with inanimate nouns, and the difference between the two is still obscure. For the most part, nouns used with oy/uy belonged to a fixed lexical set, but there are examples of the same nouns used with ay/ey. The phonological shape of both particles was governed by rules of vowel harmony. In the case of the particle ay/ey, the allomorph ay ㅐ occurred after nouns with “yang” vowels, while ey ㅔ occurred after “yin” vowels; after i or y, the shape was yey ㅖ. Examples: sta.h_ay ataires ‘on the earth,’ nwu.n_ey 누네 ‘in the eye,’ seli_yey 서리예 ‘in the midst,’ etc.

The locative ay/ey had a peculiar morphological irregularity in Middle Korean. Following certain tonic monosyllables and at least one dissyllabic noun (swol෥ 소 ‘sound’), the particle caused a lowering of an immediately preceding high pitch; e.g., nwun 눈 ‘eye,’ kwŏh ‘nose,’ mwŏm ‘body,’ ptut ‘meaning, intent,’ pal ‘foot,’ ip ‘mouth,’ and kwŏt ‘place.’ Nouns that did not undergo the tonal change include múl ‘water,’ pŏl ‘fire,’ höy ‘sun,’ póy ‘belly,’ mwul ‘group, crowd.’ Reflexes in the modern Hamgyŏng dialect substantiate, at least in part, this curious tonal irregularity.

Dative particles were the semantic equivalents of locative-allative particles used with animates. These were transparently complex. The dative marker for plain animate nouns (with no honorific status) was a combination of the genitive particle oy/uy plus key, ku.ngey, kekuy, or swontoy. Examples: QA-LA-HAN_oy_key, QA-LA-HAN_uy_kekuy 阿羅漢의거 ‘to the arahan’ (1459 Wŏrin sŏkpo 9:35c), no.m_oy ku.ngey 須達於人 ‘to another person’ (1447 Sŏkpo sangjŏl 6:5a), SSYWU-TTALQ_oy swontoy 須達於人시 ‘to Sudatta’ (1447 Sŏkpo sangjŏl 6:15b). Nouns accorded honorific status took the genitive s combined with key (or sometimes its allomorph kuy), ku.ngey, or kekuy. Examples: NGWANG_s ku.ngey 王ناس ‘to the king’ (1459 Wŏrin sŏkpo 7:26), TYEK-CCO_s kuy 謝子시 ‘to the rightful heir to the throne’ (1447 Yongbi ᑢch’on ka stanza 98), pwuthyes_key 부득계 ‘to the Buddha’ (1463 Pŏphwa kyŏng ᑫnhae 3:96), ZYE-LOY_s_kekuy 如來사가시 ‘to the Buddha’ (1459 Wŏrin sŏkpo 10:69).

The grammatical elements used with the genitive particle as dative markers were noun phrases meaning ‘to/in that place’ or ‘to/in the place where one is.’ One, the marker ku_ngekuy 그어거리 ‘to/in that place,’ was built on the deictic
pronoun ku 그 ‘that’ plus ngekuy 어귀, a form derived from kekuy 거귀 ‘to a place’ (e.g., amwo kekuy 아모 거귀 ‘some place’) 1459 Wŏrin sŏkpo 1:24a). The form of course contained the locative-allative particle uy. The noun phrase ku.ngey 그어귀 ‘to that place’ was a contraction of ku_ngekuy 그어귀 ‘to that place.’ The monosyllable key was in turn a contraction of ku.ngey. Examples: ku_ngekuy sywoy haa 그어귀하아 ‘there are many cattle in that place’ (1459 Wŏrin sŏkpo 1:24b), ku.ngey CYENG-SYA_i epkeni 그어귀에 ‘there are no monasteries in that place’ (1459 Wŏrin sŏkpo 6:22a), key_ka mwot nasi.l ila 게가이芒果나시리라 ‘(he) will not be born going to that place’ (1459 Wŏrin sŏkpo 2:11b). One further development is worth noting. The other two deictic markers, i 이 ‘this’ and tye뎌 ‘that over there,’ also occurred with -ngekuy 어귀 and formed the noun phrases i_nge- kekuy 이어귀 ‘to/in this place’ and tye_ngey 쭴어귀 (<*tye_ngekuy 쭴어귀) ‘to/in that place over there.’ In texts of the fifteenth and sixteenth centuries, yekuy 어귀 ‘in this place’ was used as a contraction of i_ngekuy 이어귀.

There were still other dative constructions in Middle Korean. The form tolye 드려, which was an adverbial derived from the verb toli- 드러 ‘takes a person along with one,’ was used together with the accusative particle (l)olul to mark a dative. Example: nal tolye nilosyatoy 날드러니로싸디 ‘He explained it to me’ (1459 Wŏrin sŏkpo Introduction 11). The form tepule 더브러, which was derived from the verb tepul- 더블 ‘take (a person) with,’ meant ‘to (an inferior).’ It sometimes followed the accusative particle but more often the noun directly. Example: nwul_tepule ‘to whom’ (1447 Sŏkpo sangjŏl 13:15).

(5) Instrumental The particle (o/u)lwo served to mark an instrumental in a broad sense that included causality, role, etc. It also marked directionality. Examples: kal.h_olwo 갈로 프로 ‘with a knife,’ thwo.p_olwo 토로 프로 ‘with a saw,’ mul_lwo 물로 프로 ‘with water,’ CWOWY_lwo 죄로 프로 ‘because of a transgression’ (1459 Wŏrin sŏkpo 1:6b), cey nala.h_olwo kal cece.k uy 제나라로 갈 죄로 when going to one’s own country’ (1459 Wŏrin sŏkpo 2 6:22).

(6) Comitative The comitative particle (meaning ‘with, and, accompanying’) was written as 와 or 과. The transcription 과 represented kwa, just as it does today. However, the form 와 was a more complex transcription. After a vowel, it represented the phonological shape wa, but, as we have seen, when used after /l/, it was a transcription of /Gwa/, with a voiced velar initial. Examples: mol_Gwa 몰와 프로 ‘horses and…,’ sywo_wa 쇼와 프로 ‘oxen and…,’ kwulwum_kwa 구름과 프로 ‘clouds and…,’ iwus_kwa 이웃과 프로 ‘with neighbors.’ However, at the beginning of the sixteenth century, the form kwa 과 began to appear after /l/, and in the latter half of the century it became the norm. For example, the forms hoyngsil_kwa 형실과 프로 ‘demeanor and…’ and mal_kwa 말
과 ‘speech and...’ are seen in the 1577 *Kyech’o simhak inmun*; swol_kwa 솔과 ‘pines and...’ and kulwel_kwa 글월과 ‘writing and...’ are seen in the 1587 *Sohak ḍnhae*. In those same texts there are also examples of kwa being used after /yl/. Examples: nunglyey_kwa 념례의와 소례과 ‘the propriety of ability and the propriety of place’ (*Kyech’o simhak inmun*); syenpoy_kwa 씨언리과 ‘with the gentleman scholar’; eskey_kwa 여케와 ‘and shoulders’; ipatiyey_kwa 이바디예과 ‘at the banquet and...’; patwok-cyang-kuy_kwa 바둑장과과 ‘checkers and chess and...’ (*Sohak ḍnhae*). This use of kwa after /yl/ continued for a time into the Early Modern period, but then, as diphthongs became monophthongized, kwa was gradually replaced by wa in this environment to conform with the usage after other vowels.

(7) **Vocative** The principal vocative particles in Middle Korean were *ha* and *a*. The particle *ha* was an honorific usage, and people lower in rank always used it when addressing a superior. In contrast, a superior used the particle *a* when calling someone below him in rank. For example, when a king addressed Sakyamuni, or when retainers addressed the king, they would say SYEY-CWON_ha 世尊하 ‘O Sakyamuni,’ or TTAY-NGWANG_ha 大王하 ‘O Great King.’ But when Sakyamuni called out to the king, he said TTAY-NGWANG_a 大王아 ‘O King.’ There was also a third vocative particle, yal/ye, which seems to have been used with an exclamatory flavor; e.g., MWUN-SYWUW_SO-LI_ye! 文殊師利여 ‘Oh Munjusari!’

5.4.2.4 **Auxiliary particles**

Nominal postpositions usually classified by Korean grammarians as auxiliary particles (보조조사) or “special particles” include (n)on/lan, olan/ulan, two, man, spwun, puthe, skocang, twukwo, lawa, sye, cwocha, taWi/tahi, taylwo, iston, za, k, kwos/Gwos, pos/pwos, kwom, sik, (i)ye, ka/kwo.

(n)on/lan In Middle Korean, the topic particle was realized as on/lan after consonants. After vowels, it was sometimes realized as the single consonant n, and sometimes as non/nun. This latter, more complex form is considered to have been a doubling of the form of the particle. From a usage point of view, non/nun was the more common form when the particle was attached directly to a noun. But when the particle followed another particle, n was more common. For example, when used with the locative marker ay/ey, the usual form was ayn/eyn; with the instrumental, ulwon; with the comitative, wan/kwan; with the dative, kungen, kekuyn; etc.

The topic marker appeared in a variant shape when it followed the accusative; the two particles combined were realized as (o/u)lan. Examples: cey psol lan kochwokwo 제 놀란 곽초고 ‘storing up his own rice, ...’ (1459 Wŏrin sŏkpo 1:45a-b), tywo.hon kwo.c olan photi malGwo ta WANG_skuy
kacye wola 도 hồng 고즈란 꽃디 말도 다 왕의 가져오라 ‘don’t sell the good flowers; bring them all to the king’ (1459 Wŏrin sŏkpo 1:9b).

two ‘too, also, even’ Like the topic marker, the focus particle two was much the same in usage and meaning as its modern standard reflex. It replaced i or (l)ollul, but it often followed particles such as ey or two. Examples: hon mal_two mwot_hoya istesini 훈 말도 몬公网야 잇더시니 ‘he could not even speak one word’ (1447 Sŏko sangjŏl 6:7b); syelWun ils TYWUNG_ey_two 설문 앞에도 ‘among sad things, too . . .’ (1447 Sŏko sangjŏl 6:6a); coycwo_two 조로도 ‘with the talent, too . . .’ (1481 Tusi ŏnhae 15:37).

man ‘only, just’ and spwun ‘only, merely, just’ The distribution of man paralleled that of two, with which it formed a semantic contrast. The distribution of spwun, however, was different in that it could be followed by the nominative, accusative, and locative particles. Examples: pap mekul_ssozi_man nekye 밥 먹을 쓰시만 너겨 ‘consider it only during the time of eating’ (1447 Sŏko sangjŏl 13:34a); na_spwun 나-alone ‘only I’ (1459 Wŏrin sŏko 2:38); pwuthye_spwu.n_i anisyya 부터뿐니 아니사 ‘only the Buddha is not’ (1459 (1459 Wŏrin sŏko 18:32); pwuthyes ilhwum NYEM_hol_spwu.n_ey 부터 일홈 속홈 쓰네 ‘in intoning the name of the Buddha . . .’ (1447 Sŏko sangjŏl 9:27a).

puthe ‘(starting) from’ and skocang ‘up until’ The ablative particle puthe 브터 originated as the infinitive form of the verb puth- 빼- ‘append.’ It often followed the accusative or the instrumental particle, but it could also follow the noun directly. When it followed the accusative particle, it indicated an origin or cause; when it followed the instrumental, it indicated the starting point. Examples: musu.k_ul_puthe 뭉스골브터 ‘because of what’ (1461 Nŭngŏm kyŏng ŏnhae 1:103), nyey_two_puthe 네로브터 ‘from ancient times’ (1481 Tusi ŏnhae 20:54), chezem_puthe 처참브터 ‘from the beginning’ (1459 Wŏrin sŏko 2:62a).

The allative skocang originated as the genitive s plus the noun kocang ‘limit.’ It was used in two meanings, ‘to the full extent of,’ as well as ‘up until.’ Examples: wonols nals_kocang hyeemyen 오를 날장 해면 ‘if counted up until today’ (1447 Sŏko sangjŏl 6:37b); QILQ-POYK hoy_yey hon hoy_Gwom cwolye yel hoy towoylq kocang cwolywo.m_oil KAM ila hokwo 一百 헌에 훈희음을 조려 열 헌 드 kapsam 조료들 면이라 훈고 ‘it is called KAM, to reduce it one year in a hundred, until it will be reduced by up to ten years’ (1459 Wŏrin sŏko 1:47b); mozom_skocang KWONG-YANG_khey hosini 모즘장 供養케 흩시니 ‘had provided as much as was desired’ (1485 Pulchŏng simgyŏng ŏnhae 3:8); him_skocang ta hoya 월섬장 다 흩야 ‘did it all, to the full extent of his power’ (1518 Pŏnyŏk sohak 8:35).
**twukwo ‘than’ and lawa ‘than’** The postposition *twukwo* was used in comparisons with a function corresponding to that of *pwota* in today’s Korean. It was transparently derived from the verb *twu-* 두- ‘put, place.’ Example: *wus-salom*_twukwo teun yang_hoya* 웃사름두고 더은 앉히야 ‘in a manner greater than the superiors’ (1447 Sŏkpo sangjŏl 9:14a). In the sixteenth century it became usual to combine this particle with the topic marker as *twukwon*; e.g., *syangnyeys salom*_twukwon kocang talotesita* 사사두곤 고더은* ‘He was most different from usual people’ (1518 Pŏnyŏk sohak 9:6).

Another postposition used in comparisons was *lawa*. Following vowels or /l/, its shape was *lawa*; after consonants, *ulawa* or *olawa* – or, in the 1481 text *Tusi o˘nhae*, *ilawa*. The etymology of the morpheme is obscure, and it cannot be found in any texts written after the sixteenth century. Examples:

- *ZIL-WEL_lawa nule* 日月라와 느려 ‘is better than (the light of) the sun and moon’ (1459 Wŏrin sŏkpo 9:15a);
- *polo.m_olawa spolli KWO-SYEN SAN_ay kanila* 불문라와 설리 古仙山에 가니라 ‘he went to Kosŏn Mountain faster than the wind’ (1459 Wŏrin sŏkpo 7:32);
- *talon kowol.h_i nyeys kowol.h_i* 돌로 훼또다 ‘the other town is better than the home town’ (1481 Tusi ŏnhae 8:35).

**sye ‘from, at’** The particle *sye*, which was derived from the infinitive form of the existential verb *isi-* 이시- ‘exist, be,’ was used to indicate origin, or dynamic location. It could be attached directly to a noun or adverb, or to a variety of particles, including the locative markers, *puthe*, directional uses of *lwo*, etc. It was also often attached to verbal forms. Examples: *syewul_sye* 쇼울셔 ‘(look around) in the capital’ (1481 Tusi ŏnhae 15:21a);

**cwocha ‘even, too’** This was the infinitive form of the verb *cwoch-* 콧- ‘chase after.’ When it followed the accusative particle, it meant ‘accompanying, going with’; when it followed the noun directly, it meant ‘even, too, in addition.’ Examples: *mozo.m_on MIMYWO_lol_cwocha polkwo.m_i nile* 모습문 微妙물조차 불고미 너리 ‘in his mind a brightness together with subtlety rose up’ (1461 Nüngŏm kyŏng ŏnhae 2:18a);

**taWi ‘in accordance with’** This postposition is believed to have developed from an earlier verb stem *taW-* ‘resemble, be like,’ but such a stem only appears in derived forms in Middle Korean. The postposition was also
sometimes transcribed as **tahi** 다히. Examples: **PEP_taWi** 发타비 ‘in accordance with the law’ (1472 Mongsan Hwasang pŏbŏ yangnak ŏnhae 21b); **kolochisyay_taWi** 퀨로치산타비 ‘in accordance with how he had taught’ (1459 Wŏrin sŏkpo 14:62); **mal_tahi** 말다히 ‘in accordance with what was said’ (1472 Mongsan Hwasang pŏbŏ yangnak ŏnhae 13). At the end of the fifteenth century, the form of the morpheme changed to **taï** 이, and it is from this form, plus the particle **lwo**, that the present-day postposition **taylwo** ‘in accordance with’ is believed to have been derived. In any case, **taylwo** was already found in the textual corpus of Middle Korean. Examples: **pa.p_ol mekwulq_taylwo hyeyye mekwum_kwa** 먹물어 대로 혜여 먹움과 ‘eating one’s fill of rice’ (1459 Wŏrin sŏkpo 7:31); **i_taylwo hola** 이대로 ‘do it this way’ (1542 Punmun onyŏk ihae pang 13).

**iston** ‘just, precisely, only’ The postposition **iston** is believed to be etymologically derived from a form of the copula, but that is not certain. Example: **mozom_iston mwuyGwusil_iye** 묻으시리여 ‘but would his mind waver?’ (1449 Wŏrin ch’ŏn’gang chi kok 62).

**Emphatic za** The particle **za**, which was transcribed with the character 沙 in pre-fifteenth-century writings, was the most widely used of the various emphatic particles in Middle Korean. However, its distribution was highly idiosyncratic. The particle followed an unmarked subject, object, or adverb if that substantive ended in /i/ or /y/; it followed time nouns ending in /l/. But it could also be used after the nominative particle **i**, the accusative particle **ol/ul**, and the locative **ay/ey**. It followed various inflectional endings: prefinal -ke- and the final endings -a/e, -nul, -tun, -kwo, and -key. Examples: **i kaksi_za nay etninwon mozo.m_ay mastwota** 각시사 내 얻고자 다니는 몇소에 맞도다 ‘precisely this bride is the one I am looking for!’ (1447 Sŏkpo sangjŏl 6:14a–b); **LOY-ZILQ_za pwonayywo.l ila hokwo** 来日사 보내오리라 흥고 ‘saying I would send her the very next day’ (1459 Wŏrin sŏkpo 7:16a); **i twul.h ul_za tepulusini** 이 두흘사 대브르시니 ‘he was accompanied by precisely these two’ (1449 Wŏrin ch’ŏn’gang chi kok 52); **wolakeza** 오라거사 ‘only after a while’ (1447 Sŏkpo sangjŏl 21:217).

The particle **za** was replaced by **ya**, and this change could already be seen in texts from the latter half of the sixteenth century. In the 1587 *Sohak ŏnhae* the transcriptions **zya** 자 and **a** 아 can be found in place of this particle. Examples: **kwothyecila hoyezya HE_hotela** 고터지라 흥여자 許고더라 ‘They said precisely that they wanted to correct it and he permitted it’ (6:77b); **mothwon hwu_ey_a** 모든 후에야 ‘just after they had gathered’ (6:131a). In addition, the form **ya** is seen among the particles in the Chinese-language version of passages in the document. For example: **PUL WUY PANGIN CI SWO I CYA i_ya MYEN PWU intye** 不불 爲위 傍方 人인之
Emphatic -k The emphatic particle -k was used after several inflectional endings, most often the infinitive -a/e. But it was also used after the instrumental particle (o/u)lwo. Examples: il_Iwok HW_u ey 일록 뒤에 ‘after this’ (1459 Wœrin sœkpö 2:13a); etin petun nyey_Iwok selu sakwoynwola 어던 버든 내록 서로 사귀노라 ‘wise friends from olden times associate with each other’ (1481 Tusi ônhae 20:44); KWONG-PWU_lol hoyak mozo.m ol pse工夫을 흘약 몫수물 빠 ‘study and stay interested’ (1472 Mongsan Hwasang pœbö yangnok ônhae 4a).

Emphatic kwos This particle attached directly to nouns and adverbs. Examples: hotaka nwun_kwos kosti mwot homyen 흠다가 눈곳 흠디 몫혼면 ‘then if it does not even have an eye’ (1472 Mongsan Hwasang pœbö yangnok ônhae 56); hotaka anwon mozom_kwos naymyen 흠다가 아는 몫수곳 내면 ‘then if it gives rise to a knowing heart’ (1472 Mongsan Hwasang pœbö yangnok ônhae 42a). The particle was realized phonologically as Gwos 옷 following /l/ or a vowel (including /y/). Examples: nay mal_Gwos ani tulusimyen 내 말웃 아니 드르시면 ‘if you do not even listen to my words’ (1459 Wœrin sœkpo 2:5b); wuli_Gwos kyeyGwumyen 우리웃 계우면 ‘if even we cannot win’ (1459 Wœrin sœkpo 2:72a); i pwopoy_Gwos kacye isimyen 이 보 ADVISED 가저 이시면 ‘if he just has this treasure’ (1459 Wœrin sœkpo 8:11); na_Gwos i SYANG ol aLGwo 낫웃 이 상을 알으 ‘only I know this figure’ (1449 Sœkpo sangjœl 13:42b).

Emphatic pwos/pos This emphatic particle had a meaning and usage much like that of kwos, and it also attached directly to nouns. However, the conditioning for the vowel alternation is not known. Examples: mozo.m ays pet_kwos animyen 몫수셋 받못 아니면 ‘if not even a bosom friend’ (1464 Sœnjong yœngga chip ônhae 2:128); skwum_pos animyen 뵃못 아니면 ‘if it is not even a dream’ (1459 Wœrin sœkpo 8:95).

kwom When the postposition kwom attached to an adverb, including one derived from the infinitive of a verb, it had an intensifying effect. In hoye_kwom 흠여곱 (of which Contemporary Korean haye_kum ‘letting, making, forcing’ is the fossilized relic), for example, the particle intensified the meaning of the infinitive hoye ‘doing, making.’ The same was true of its
effect in *sile kwom* 시리곰 ‘possibly’ (from *sile* 시리 ‘acquiring’) and *kwop-koy kwom* 껍기곰 ‘so as to double it,’ as well as in *ili kwom* 이리곰 ‘in this way,’ *kuli kwom* 굴리곰 ‘in that way,’ and *tasi kwom* 다시곰 ‘again.’

**kwom/Gwom and sik ‘each’** When either of these two morphemes attached to a numeral or a noun, it carried the meaning of ‘each.’ Examples: *hon nala. h´ay hon SSYWU-MI SAN kwom isywotoy* 홍 나라해 홍須彌山곰 이쇼디 ‘in each country there is a Sumeru Mountain’ (1459 *Wörin sökpo* 1:22a); *SO-PANG _i KAK-KAK PYEN_hoya SSIP-PANG _kwom towomyen SO-SSIP PANG _i ilGwo* 사방이 각각 변야十方이 각각變야 양方이 각각 변야 ‘when the four directions each change and become ten directions each, they grow to forty directions’ (1459 *Wörin sökpo* 19:12). After vowels and /l/, *kwom* was realized as *Gwom.* Examples: *SAM-SYEY KAK-KAK LYWUW_hoya SSIP-SYEY _Gwom towomyen SAM-SSIP SYEY ilGwo* 삼세 각각流야三世 각각流야 四方이 각각 변야十方이 각각 변야 ‘if the worlds of the past, present, and future flow and become ten worlds each, they grow to thirty worlds’ (1447 *So˘kpo* 19:12a); *SO-NGWANG THYEN mokswu.m _i ZIN-KAN_ays swuyn hoi lol holo _Gwom hyeyye NGWO-POYK hoy_’ni 四王天 목수미人間예천 냥로음 혜여五百니 ‘life in the first heaven is five hundred years counting ten years in the world of men as one day each’ (1459 *Wörin sökpo* 1:37b–38a); *PALQ-CHYEN-LI SYANG_on holo PALQ-CHYEN-LI _Gwom nyenun SYANG ila* 八千里象은 八千里음 너는象이라 ‘an 8,000 li elephant is an elephant that travels 8,000 li each day’ (1459 *Wörin sökpo* 7:57).

In the meaning of ‘each,’ *kwom/Gwom* was eventually replaced by the particle *sik.* This latter particle first appeared in alphabetic documents in the sixteenth century. Examples: *swuyn_nas twon_ay hon syem _sik homyen* 홍낼拿에 홍섭석 혜면 ‘when (calculated) at fifty pieces of money for one bag each’ (1517 *Pönyök Pak T`ongsa* 1:11b); *hwok sey-pen _sik twolGimye hwok tasos pen _sik twolGye* 홍세면식돌이며 홍다섯면식돌여 ‘sometimes passing [a wine cup] around three times each, and sometimes passing [it] around five times each’ (1518 *Pönyök sohak* 10:32), *holo sey _pen _sik meku-myen* 혜로세면식 머그면 ‘if eaten three times each day’ (1542 *Punmun onyök ihae pang* 9). However, since *sik* ‘each’ was represented in *idu* transcription (式) in the 1395 *Taemyöngnyul chikhae,* it must have existed in actual speech in the fifteenth century as well.

**i`ye ‘or, and, and the like’** This particle was ordinarily used in listing two items, or when indicating that more than one is involved. In the sixteenth century it was also realized as *ya.* Examples: *kwulku.n _iye hyeku.n _iye wuti ani ho.1_i eptela* 근그니여 허그니여 우리 아니호리 엄더라 ‘whether great or small, there was no one who would not weep’ (1459 *Wörin sökpo*
5.4 Morphology

5.4.3 Conjugations

5.4.3.1 Verbs and adjectives
As is true of Contemporary Korean today, verbs and adjectives in Middle Korean had virtually the same morphology. Almost all inflectional endings attached to both stem classes. There was one important exception, however. The prefinal verb ending -no-, which marked processive aspect, attached to verb stems only; as a result, use with this ending is ordinarily taken as the criterion for classifying a stem as a verb. Thus, the existential is-‘be, exist, have’ was a verb stem because it was used with the processive ending -no-. But, on the other hand, the negative existential eps- has to be considered an adjective because it did not at that time occur with -no-. Some inflecting stems functioned as both adjective and verb. The adjective polk-‘is bright’, for example, was used with -no- in the processive meaning ‘become bright’; e.g., kwulu.m_i huthwu.m_ay tol_i polkno ni 구르미 흐투 떠돌이 봇는 니 ‘diffused by clouds, the moon brightened’ (1564 Sŏn’ga kwigam 1:39).

5.4.3.2 Stems
The typical inflecting stem in Middle Korean was monosyllabic. Two-syllable stems were also fairly common, but stems longer than two syllables were invariably compounds. The shapes of many stems were irregular and changed depending upon the inflectional ending attached to them. Some of these alternations were segmental; others were suprasegmental.

Segmental alternations
Some segmental alternations were derived by phonological rules that applied automatically to a basic phonemic shape. For example, before an ending beginning with a consonant, W and z were neutralized with p and s; consonant clusters were reduced. Other alternations were more complex.
W and z stems Many Middle Korean stems ended in -W- or -z-. Examples: kwW- 과- ‘is pretty,’ kwuW- 꾷- ‘bake, roast,’ mwuW- 꾤- ‘lie down,’ teW- 덥- ‘is hot,’ swuW- SERIAL- ‘is easy,’ etuW- 어_serial- ‘is dark,’ ｴ- ﾚ- ‘is confused,’ chiW- 청- ‘is cold,’ kolW- ﾆ- ‘line up,’ solW- ﾊ- ‘tell, inform,’ yelW- 열- ‘is thin’; naz- 냄- ‘be/get better,’ niz- 니- ‘join together,’ toz- ﾀ- ‘love,’ puz- ﾔ- ‘pour,’ az- ﾆ- ‘take, snatch,’ wuz- 愓- ‘laugh,’ cwoz- 愍- ‘peck at,’ cwuz- 唬- ‘pick up,’ ciz- ﾐ- ‘make.’ The voiced fricatives were realized phonemically only before vowels; before consonants they were replaced by /p/ and /s/.

Clusters In addition to -IW-, a number of other consonant clusters occurred at the end of inflecting stems. These included -sk-, -st-, -mch-, -ps-, and -nc-, the first three of which are no longer found in Korean. Of the five, only -sk- was common, however; it was found at the end of about a dozen stems, e.g., task- 농- ‘cultivate,’ kesk Rowling- ‘break off,’ kask- 끼- ‘pare,’ kisk- ﾣ- ‘rejoice,’ kosk- ﾤ- ‘endeavor,’ sesk- 셈- ‘mix,’ kyesk- 셈- ‘experience,’ yesk- ﾣ- ‘plait,’ mwusk- 騤- ‘tie together,’ pwosk- 為- ‘toast, parch,’ pisk- 框- ‘is askew.’ The other four final clusters were rare. Three of them, -st-, -mch-, and -ps-, occurred in one stem each: mast- 맴- ‘entrust,’ wumch- 殉- ‘shrink up,’ eps- 埃- ‘is not.’ The fourth, -nc-, was found in only two stems, anc- ﾆ- ‘sit’ and yenc- 엽- ‘place.’ (Cf. “Nasal epenthesis,” above.) Before a consonant, the five clusters were reduced as follows: sk → s; st → s; mch → ms; ps → p; nc → ns.

G and k stems An unexpected velar was found in the conjugations of three stem classes. (1) The stem simu- 시무- ‘plant’ had the inflectional forms simukwo (-kwo 시무고, simuti (-ti 시무디, simke (-e) 심거), simkwum (-wum) 심궈, etc. In other words, the stem shape was simu- before a consonant, and simk- before a vowel. (2) The stem talo- 다루- ‘is different’ was inflected as follows: talokenul 다르거늘, talosya 다르사, talGa 달아, talGwom 달음, etc. The alternation here was talo- ~ talG-. Other stems included in this class were kwolo- 고로- ‘level,’ kilu- 기루- ‘bring up,’ nilo- 니로- ‘tell,’ twulu- 두루- ‘enclose,’ molo- 몰로- ‘cut out,’ and wolo- 오로- ‘go up.’ (3) The stem poz- 포지- ‘break’ had this inflection: pozot- 포지터, pozomye 포지며, pozGa 포자, pozGwon 포즌, etc. Other stems found in this class were kuzu- 그우- ‘drag,’ pizu- 비우- ‘make up,’ and swuzu 수우- ‘is boisterous.’ These alternatives were also found in some nouns; cf. the discussion of /G/ in section 5.3.1, above. In the sixteenth century, the stems in (2) merged with the “l-doubling stems” described below, and the stems in (3) disappeared.

t/l stems An alternation not predictable from a basic phonemic shape was that of the dental stop -t- with the liquid [ɾ]. This alternation was found in a number of stems. Examples: ket- 걷- ‘walk,’ kit- 걷- ‘draw (water),’
kyet- 견- ‘weave,’ tot- 돈- ‘run,’ tatot- 다든- ‘arrive,’ tut- 들- ‘listen,’ mwut- 문- ‘ask,’ skoytot- 석든- ‘perceive,’ achyet- 아철- ‘dislike,’ eptut- 업든- ‘fall down,’ il.khot- 일론- ‘call, name,’ hut- 들->$ 드- ‘scatter.’ As is still true in the standard language today, the stop appeared before consonants, and the liquid before vowels; e.g., ketkwo 걷고, kele 거러. Note that the stems contrasted morphophonemically with, for example, both et- 얻- ‘receive’ (etkwo 얻고, ete 어더) and kel- 걸- ‘hang’ (kel.Gwo 걸오, kele 거러러).

I stems An -l- at the end of an inflecting stem was suppressed before the coronals t, c, s, z, n. For example, tul- 들- ‘raise up’ + -noni → tunoni 드너; kil- 길- ‘be long’ + -ti → kiti (ani hosimye 기디 아니 시며. This same kind of l-dropping was also found in many noun compounds.

I-doubling stems Stems in this class ended in a vowel plus -lo/lu-, except before the infinitive -a/e and a small number of other endings beginning with a vowel, where the final vowel dropped and the /l/ doubled. The most common of the stems with this irregularity was mwolo- 모로- ‘not know,’ which had the following inflection: mwolokonul (-konul) 모로거늘, mwolokwo (-kwo) 모로고, mwololq (olq) 모로, mwolla (-a) 몰라, mwollwol (-wol) 몰롤, etc. The l-doubling class of stems also included molo- 모로- ‘dry,’ mulu- 뮬루- ‘retreat,’ spolo- 셰로- ‘be quick,’ pulu- 브루- ‘call,’ and hulu- 호루- ‘flow.’

I-inserting stems Today, Contemporary Korean has yet another, very small class of verb stems ending in a vowel plus -lu-: nwulu- ‘be yellow,’ phwulu- ‘be blue,’ and ilu- ‘reach.’ These stems are often called “l-inserting,” because, unlike l-doubling stems, the final vowel of the stems never drops, and instead, another -l- is added before certain endings beginning with a vowel. In Middle Korean, however, the class was composed of a somewhat different membership, because at that time the only one of these three stems with a final -lul- was nilul- 니룰- ‘reach.’ Moreover, this particular verb had an additional peculiarity in that it was also realized as nilu-, with the final -l- dropping. For example, the adverbial form (with the adverbative ending -key/Gey) was usually nilulGey 니룰에, but, on occasion, the form nilukey 니르게 also appeared. It is difficult to know what conditioned the -l- to drop in these cases.

The situation with nwulu- 누르- ‘be yellow’ and phulu- 프루- ‘be blue’ was different. In Middle Korean, instead of two forms there were two contrasting pairs: nwulu- 누르- ‘be yellow’ and nwulul- 누를- ‘become yellow’; phulu- 프루- ‘be blue’ and phulul- 프를- ‘become blue.’ In other

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20 The behavior of the liquid was typical, but mwolo- was distinguished from the other stems in the class by suprasegmental irregularities. These will be discussed in detail later, in the section on “Tone alternations.”
words, the final -热潮 appears to have been a separate morpheme added to the adjective stems transforming them into verbs. The process verbs resulted were the etymological source of today’s l-inserting pair through the loss of the semantic distinction.

**Vowels** A stem-final vowel was subject to elision or crasis when followed by another vowel. In general, a minimal vowel, o (•) or u (―), elided. The rules were as follows: a + a → a; e + e → e; o + a → a; u + e → e; o + wo → wo; u + wu → wu; i + i → i. For example, ka- 기- ‘go’ plus the infinitive -热潮 was realized as ka 기; pho- 포- ‘dig’ plus the volitive -热潮/우- or the infinitive -热潮/아/어 resulted in phwo- 포- and pha 과; psu- 수- ‘use’ plus those same endings gave pswu- 수- and pse 섰.

An -热潮 changed to -热潮 before a following a, e, wo, or wu. For example, neki- 니기- ‘regard’ plus -어 gave nekye 니겨; kolochi- 고로치- ‘teach’ and the sentential nominalizer - woll 옵 became kolochywom 고로함. In a similar fashion, a stem-final -热潮 caused an excrescent -热潮 to develop before these same vowels; e.g., yehuyye 예희여, yehuyyum 예희음 ‘send (someone) far away.’

The exception to these rules was the verb stem ho- 하고- ‘is, does.’ It often behaved as if it had an i or y vocalism; the infinitive was hoyo- 하고야, and the volitive usually appeared as hoywo- 하고-. However, the regularly formed volitive, hwo- 호-, was also sometimes recorded in the literature.

There were a number of other unusual stem alternations. One was that of nye- 니- ‘travel about,’ a stem which appeared as ni- 니- before the perfective ending -ke--; e.g., nikeci.ngita 니겨지다, nikenul 니겨늘. Another was that of the honorific existential kyesi- 거시- ‘is,’ which was realized as kye- 거- before the honorific ending -sywosye -소셔, keysywosye 거소셔. The elision demonstrates clearly that the -_itr in this stem was in origin the honorific morpheme -(o/u)시-.

The existential isi- 이시- ‘is’ was conspicuously irregular. The final vowel of this stem was realized, either as i or y, before another vowel or a voiced consonant – with the salient exception of the processive -no- -노-. Before all other endings the vowel elided, and the stem was realized as isi- 엇-. Examples: isimye 이시며, isye 이서, iskwo 잇고, iskeni 잇거나, isnon 잇는. We have already mentioned the fact that when it followed the infinitive -热潮, isi- 이시- was contracted to ‘si-/sy- 시-. There were also examples of this contraction after words ending in -i; e.g., komani ’simye 김마니 시며 ‘he remained quiet’ (1461 Nǔngǒm kyǒng ḏǒnhae 10:14b).

**Tone alternations**

**Low** The most common type of inflecting stem in Middle Korean was monosyllabic and low in pitch; e.g., niék- 먹- ‘eat,’ kwüp- 꿄- ‘be bent.’ Stems of this type were closed by a consonant, consonant cluster, or -热潮.
vowel syncope. Since low-pitched, minimal vowels (/i, u/) are believed to have developed after the twelfth century through syncope and other processes. Examples: *psú- > psú- ‘use,’ *pocó- > psó- ‘squeeze,’ *thó- ‘burn,’ *thó- ‘ride,’ chó- ‘kick,’ khú- ‘be big,’ chú- ‘hit, strike,’ pskí- ‘jam into,’ ptí- ‘steam.’ As mentioned above, initial clusters are believed to have developed after the twelfth century through vowel syncope. Since low-pitched, minimal vowels (/i, u/) rarely occurred between voiceless obstruents in Middle Korean, these were probably the vowels subject to elision at an earlier stage of the language. Thus, *psú- > psú- ‘use,’ *poco- > psó- ‘squeeze,’ etc. The initial aspirates were also derived through vowel syncope: *hótó- > thó- ‘ride,’ *hökú- > khú- ‘be big.’

Rising Some stems (around forty) were always marked with a rising tone; e.g., et- ‘receive,’ tywóh- ‘be good.’ The great majority of these rising-tone stems (perhaps thirty) ended in -y-, and some of these y-stems were derived with the passive morpheme -í; e.g., syéy-: ‘stand (something) up’ (from syé-: ‘stand’) and myéy-: ‘get stopped up’ (from my-: ‘stop up’). Other rising-tone stems were derived from two syllables as well; e.g., wol- ‘be sound, unimpaired’ is also well attested as wól- ‘be sound, unimpaired.

Irregular All other monosyllabic stems were characterized by tone alternations. The most variable were stems with a simple (C)V- segmental shape. Here is a fairly exhaustive list: ca- ‘sleep,’ cwu- ‘give,’ ho- ‘do, is,’ ha- ‘be big,’ ka- ‘go,’ na- ‘grow, come out,’ nwu- ‘evacuate (urine, feces),’ wo- ‘come,’ pwo- ‘see,’ sa- ‘buy,’ swo- ‘spread, shoot.’

There were a number of apparent exceptions: pt+hú- ‘pluck,’ sú+ ‘wash’ (variants of sís- ‘id.’), chó+ ‘search for,’ púc+ ‘tear,’ kóth- ‘be alike,’ wólh- ‘be right,’ súlh- ‘dislike,’ cwóh- ‘be clean,’ and chiW- ‘is cold.’ Most of these stems, however, were morphemically complex. For example, kóth- ‘be alike,’ which was also attested as kóth- ‘like’ (attested in compounds plus the verb ho- ‘do, be,’ chiW- ‘the (weather) is cold’ was a compound of *chí- which was probably a variant of chó- ‘be cold (to the touch),’ plus -W+ ‘prefinal ending used to derive adjectives. In addition, there was the anomalous low pitch of psí- ‘water’ stems,’ which was a variant of ptí- ‘id.,’ and the highly variable stem phye- ‘spread’ (see below), which was perhaps derived from, or related to, phi- ‘spread; bloom.’

The Jilin léshí (twelfth century) transcriptions of ‘ride’ and ‘big’ were and. These show that the first syllable of the words began with *h, and that there was metathesis of the consonants.
twu- 두- ‘place,’ ci- 지- ‘fatten,’ ci- 지- ‘carry on the back,’ hye- 히- ‘pull,’
hye- 히- ‘kindle,’ phyе- 퍼- ‘spread,’ i- 여- ‘carry on the head,’ ni- 니- ‘travel
around,’ sye- 서- ‘stand,’ ti- 디- ‘lose, fall.’ The alternations seen in these stems
were extremely complex, but were consistently the same for all members of the
class. Before some specific endings, the stem was marked with a low tone;
before other endings it was marked with a high tone. Here are two examples:
pwo- 보- ‘see’: pwokwó, pwomьén, pwókènà, pwóa, etc. 보-고, 보-면, 보-거나,
보-야; sye- 서- ‘stand’: syèkwó, syèmyèn, syèkènà, syéà, etc. 서-고, 서-면, 서
거나, 서-야. There was no obvious phonological conditioning for the
alternations.

Low/rising In about 100 monosyllabic stems, all of which ended in a voiced
consonant (l, t/l, W, z, m, n), a low tone alternated with a rising tone; e.g., tëW-
~ tëp- ‘be hot.’ Examples: al- 을- ‘know,’ kët/kèl- :전/escal- ‘walk,’ kwuW- 꼪-
‘bake,’ wuz- 꼾- ‘laugh,’ nam- 남- ‘remain,’ an- 안- ‘embrace.’ The low pitch
seen in these stems appeared before a vowel (e.g., tëWè derog), and the rising
tone before an ending beginning with an obstruent (e.g., tèpày :님게). In earlier
Korean, the stems appear to have ended in a high-pitched “minimal”
vowel; e.g., *tëWú-. The fifteenth-century alternation resulted from the
elision of that vowel: *tëWúkëy > *tëúpèy > tèpèy. (See the discussion
of the rising tone, section 5.3.3.1 above; also see Ramsey 1978, 1986, 1991.)

Low(~low) Around eighty low-pitched stems had a morphophonemic,
second-syllable vowel that was low in pitch. There were several different
categories of verbs with this pitch behavior. One was comprised of the h-stem
verbs. Examples: nàh(ò)- 냉- ‘give birth to; produce’: nàkhwó, 나·코, nàhòl
나흘; nwòh(ò)- 농- ‘place’: nwòssòpkwó 노;습고, nwòhò 노흘; cèh(ò)- 정-
‘fear’; cèhé 지-히, cèhòni 지흘·나. The transitive verb nàh(ò)- 냉- ‘give birth
to’ was derived from the intransitive verbs na- 나- ‘come out, be born’ by
adding the causative suffix -(hò)-, which, at least etymologically, was proba-
bly a form of the verb ho- 히- ‘do.’ Other h-stems may also have been
derived with this causative suffix. (See the discussion of causatives, section
5.4.1.3 above.)

Another group of stems with a low(~low) morphology was characterized by
a voiced consonant (t/l, W, z, n) before the morphophonemic low vowel. Here
is a fairly exhaustive list of those verbs: tòt/tòlo- 톨- / tong- - ‘run, rush,’ tüt/tülu-
▶- /드르- ‘hear, listen,’ kòp/kòwò- 꼽- / 수도- ‘collect,’ mòyp/mòyWò-
밀- /미봉- ‘be spicy,’ mòyp/mòyWù- 웡- /의보- ‘be hateful,’ nwùp/nwùWù-
 CFG- /무보- ‘lie down,’ còs/còzò- 쌈- /أخر- ‘spin (thread),’ pùs/pùzu- 놓- /
브스- ‘swell,’ pùs/pùzu- 놓- /브스- ‘pour,’ mùn(ò)- 므느- ‘put off, postpone.’
Some were morphemically complex; mòyp/mòyWù- 웡- /의보- ‘be hateful,’
for example, was derived from mòy- ‘hate’ plus the prefinal ending Wù-.
mòyp-/mòyWò- ‘be spicy’ may have had a similar derivation, though the transitive verb from which it would have been derived is uncertain. Another salient characteristic of these stems is that all of them – with the exception of \( nwùp-/nwùWù- ṃ̀l-\) ‘lie down’ – had a minimal vowel, \( u/o\), in both syllables. That kind of vocalism was rare in low/rising stems.

The low–(low) stems \( ãnc(\ddot{a})-\) ‘sit’ and \( ýenc(\ddot{a})-\) ‘place’ had -nc-clusters before the minimal vowel, which made them unlike any other stems in Middle Korean. In both, however, the nasal was an innovation (see the discussion of “nasal epenthesis,” above). The earlier forms can be reconstructed as *\( ąc\dot{o}\)– and *\( ýo\dot{c}\).–.

The low–(low) pitch pattern was found in stems with a morphophonemic velar consonant (see the discussion of \( G \) and \( k \) stems, above). Examples: \( \text{simù-} / \text{simk-} \) ‘plant,’ \( tālò-/tālG- \) ‘is different,’ \( pòzò-/pòzG- \) ‘break.’ low–(–low) was also the pattern carried by “l-doubling” stems; e.g., \( hūlù-/hūll- \) ‘flow’: \( hūlūkéy, hūllé \) ‘horrify,’ ‘horrible’.

Exceptions Two l-doubling stems were exceptional, however. Instead of the low–(low) pitch pattern seen in all the other l-doubling stems, \( mwòlò-/mwòll- \) ‘not know’ and \( nwùlù-/nwùll- \) ‘press’ had, rather, a low pitch alternating with a rising pitch that appeared whenever the \( l \) doubled; e.g., \( mwòlòkwò, mwòllá \) ‘not know,’ ‘know.’ Note that \( mwòlò- \) and \( nwùlù- \) are also the only l-doubling stems not characterized by a minimal vowel in both syllables.

**Low\- or \( i\-\) and those that did were generally compounds. Nor did many end in \( a, e, wo, \) or \( wu. \)

In addition, the most common tonal pattern was low–high.

**5.4 Morphology**

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23 It has often been suggested that \( mwòl- \) ‘not know’ is to be identified etymologically with \( mwò ‘cannot’ and \( ãl(\ddot{o})- \) ‘know,’ but how the tonal and segmental irregularities would have arisen from that morphology is still unclear.

24 There were exceptions. Here are a few: \( \text{pílùs-} \) ‘begin,’ \( \text{kùwèč-} / \text{kùwèčt-} \) ‘scold,’ \( \text{mèkùm-} \) ‘feel, grope,’ \( \text{kèwù-} \) ‘oppose,’ \( \text{có-} / \text{cóta-} \) ‘grow up,’ \( \text{pòl-} / \text{pòla-} \) ‘hope for,’ \( \text{sàmkù-} \) ‘be prudent,’ \( iè- \) ‘shake,’ \( \text{sàlwò-} \) ‘fight,’ \( \text{nànwò-} / \text{nànhwò-} \) ‘divide,’ \( \text{pòyhwò-} \) ‘learn,’ \( \text{pàskwò-} \) ‘change,’ \( \text{wòyGwò-} \) ‘memorize,’ \( \text{kyèncù-} \) ‘compare,’ etc.
Stems longer than two syllables were compounds. The only possible exceptions were a few stems with a morphophonemic vowel as the third syllable; e.g., etip-jeiWû- /C18 etup-/어 드 부- ‘be dark,’ âchêt-âchêli- /어 치르-어 치르- ‘dislike, hate.’ These stems may also have had complex etymologies, but what those were is now obscure.

5.4.3.3 The copula
The copula, i- ‘is,’ was an inflecting form that attached to a noun or noun phrase to make it into a predicate. Examples: LWUW nun tala_k ila 樓는 나 라기라 “LWUW” is a two-storied house’ (1447 Sŏkpo sangjol 6:2b); khun poyams SSIN-LYENG ila 큰 빌영 신영이라는 [it] is the spirit of a big snake’ (1459 Wŏrin sŏkpo 1:15a).

The copula was transcribed with a form identical to that of the nominative particle i, and it attached to the preceding noun with the same tight juncture. However, its phonological behavior with inflectional endings was idiosyncratic. For one thing, when the inflectional endings -ke-, -key, and -kwo attached to the copula, the initial /k/ of those endings lenited to /G/. Examples: TYEN-CO iGe sini 天子 이어시니 ‘it was the Son of Heaven,’ MEN-NYEN iGey hwoltini 恩年이에 홀디니 ‘it is so arranged that [one moment] becomes ten thousand years’ (1482 Kŭmgang kyŏng samga hae 5:40b); POYK-SYENG iGwo 百姓이오 ‘it is the people, and . . .’ Because velar lenition regularly occurred after /y/, this behavior of the copula is evidence that its phonological shape was not a simple /i/, but rather /iy/.

However, the copula also induced other phonological changes as well. The most conspicuous of these was the replacement of an initial /t/ by /l/ whenever the endings -te-, -two-, and -ta were attached to it. Examples: chapan ileni 차 반이라니 ‘it was food,’ SSI-CYELQ ilwo 时節이로다 ‘it is the season,’ PEP ila 法이라 ‘it is the law.’ It is not known what it was about the copula that caused this replacement.

Another unexplained change was that of the volitive -wo-, which was realized as -lwo- following the copula. Examples: hon PPWULQ-SSING ilwon cyencho_lwo 宝佛乘衣論철로 ‘for the reason that it is a Buddhist’ (1447 Sŏkpo sangjol 13:50b); hon kaci lwo.m ol nilunila 홧 가지로물 니루니라 ‘he says that it is of one kind’ (1472 Mongsan Hwasang pŏbo yangnok ònhae 19a). Moreover, already in the fifteenth century there were also examples of the elision of this /l/ and the replacement of -lwo- by -wo-; e.g., hon kacywo.m ol nilosini 홧 가조물 니루니라 ‘because [you] say that it is of one kind’ (1461 Nŭngŏm kyŏng ònhae 2:79b).

As we have said, the Middle Korean copula was fundamentally a predicative form for nouns. That is what the copula still is today. However, in the Middle Korean period this same morpheme also had characteristics not shared by its modern reflex. For at that time, the copula appeared freely in a wide variety of
other morphological environments, and its meaning and function in those environments are as yet poorly understood. Particularly noteworthy are cases of its linking with prefinal and conjunctive endings instead of nouns. For example, in the negative construction ati mwotkeyla 아디 몬게라 ‘one cannot know’ (1467 Moguja susimgyŏl ŏnhae 43), the copula (which was realized here as [y]) was attached to the prefinal ending -ke-. (The form mwot- in this construction was an elliptical form of mwot_ho- ‘not be able to do.’) Here are a few additional examples: ati mwotkey.ngita 아디 몬게이라 ‘one cannot know’ (1467 Moguja susimgyŏl ŏnhae 43), mwolla pwoayla 몬라 보예라 ‘don’t know’ (1459 Wŏrin sŏkpo 23:66b); polkikwoeyeyni 볼기고제니 ‘since he wants to make it clear’ (1464 Sŏnjong yŏngga chip ŏnhae 2:31).

5.4.3.4 Endings
Inflectional morphemes are classified into “final endings,” which occurred in word-final position, and “prefinal endings,” which occurred in medial positions. Prefinal endings indicated intention, politeness, tense, and aspect; they also included emotives. Final endings showed the modality and function of the predicate – whether it ended the sentence or clause, how it linked to other predicates, modified a noun or was nominalized, etc.

Prefinal endings

(1) Volitive -wo/wu- The “volitive” -wo/wu- (called the modulator in Martin 1992) was a complex morpheme known only from Middle Korean. Its meaning was enigmatic and its phonological shape varied. After a stem ending in a consonant, the shape of the volitive alternated between -wo- and -wu- by the rules of vowel harmony. Following the vowels /o, u, i/, it behaved according to the usual phonological rules; that is, a minimal vowel /o/ or /u/ elided before the volitive, while after an -i- (or -y-), the volitive developed a parasitic y: -ywol/wyo- (-요/유-). However, the volitive itself elided after a, e, wo, or wu, and the only evidence it was there at all was the change in tone it often induced in the stem. Examples: makwo- 마고- ‘obstruct’, mekwu- 머구- ‘eat’, phwo- 포- ‘dig’, pswu- 부- ‘use’, kâ- 가- (kâ 가- ‘go’), iGê- 이어- ‘shake’, wô- 오- ‘come’, cwû- 주- ‘give’, kulywu- 그류- ‘draw’, yehuywuw- 여희유- ‘send away’). The shape of the volitive also changed in idiosyncratic ways when combined with certain morphemes: the retrospective -te- plus the volitive contracted to -ta-; the honorific morpheme -(o)si- plus the volitive became -(o)sya-; and the copula i- combined with the volitive to give -ilwo-. Examples: i_lol_za puskuli ta ni 이롭사 봉그리다니 ‘he was ashamed of precisely this’ (1449 Wŏrin ch’ŏn’gang chi kok 121); kasym kyesya.m_ay 가سام 저샤매 ‘in going or staying’ (1447 Yongbi ŏch’on ka 26).
The usage of the volitive was also complex. It did not occur before certain final endings; e.g., -kwo, -kuy, -twolwok, -(o/u)myen, -e/a. Before other endings, such as the nominalizing suffix -(o/u)m and the adverbial suffix -toy, it was obligatory. (See the discussion of “nominalization,” above.) Examples: mekwum, mekwutoy 먹고, 먹구디 (mek- 먹- ‘eat’); capwom, capwotoy 자봄, 자보디 (cap- 잡- ‘seize’). Before still other endings, the volitive was sometimes added, sometimes not, for complicated reasons. For example, it sometimes appeared before the modifier endings -(o/u)n and -(o/u)lq, depending on what the adnominalized sentence modified: in case the modified noun was semantically the object of the adnominalized verb, the volitive was added; otherwise, the volitive was not obligatory. For instance, in the construction CCYEN-SOYNG_ay cizwon CCWOY 前生에 지돈 罪 ‘sins that one committed in an earlier life’ (1459 Wŏrin sŏkpo 1:6b), the verb cizwon ‘committed’ incorporated the volitive because it modified its object, ‘sins.’ On the other hand, in cwoy cizun mwom 價 지돈 몸 ‘a body that has committed a sin’ (1459 Wŏrin sŏkpo 21:20), cizun ‘committed’ did not take the volitive because ‘body’ was not its object. Here are other examples (from 1459 Wŏrin sŏkpo) with the volitive: nilGwom ma.l_i 닐온 말리 ‘the words that were spoken’ (2:70b); CCYWUNG-SOYNG_oy nip wulsa 衆生이 나불 옷 ‘clothes that the common people shall wear’ (8:65); tutwom swoli 듣는 소리 ‘the sound that one hears’ (2:53a). Examples (from 1459 Wŏrin sŏkpo) without the volitive: cwukun salom 주근 사람 ‘a person who has died, a dead person’ (21:25); kil nyelq salom 길 넘 사람 ‘people who will travel on the road’ (21:119). Other endings with which the volitive was sometimes used include -ni, -noni, -(o/u)lini, and -(o/u)lila; combined with the volitive, these endings were realized as -woni, -nwoni, -wolini/-wulini, and -wolila/-wulila.

The meaning of the volitive morpheme is difficult to delineate with any precision. However, it seems to have been used for actions (or states) that were of subjective will or intent, not for factual, objective narrative. In a declarative sentence, the intention was that of the speaker; in an interrogative sentence, the intention was that of the person being questioned. Here are a few examples: i TWONG-SAN_ol phol wulqa 이 동산을 포로리라 ‘I will sell this garden’ (1447 Sŏkpo sanggŏl 6:24b); nay melthyey two nilGwoli.ngita 내 멜테로 닐오토리다 ‘I will speak roughly’ (1459 Wŏrin sŏkpo 21:38); pwuthyes PEP_i CYENG-MI_hoya cyemun ahoy enu tutcoWwoli.ngi.ka 부บทความ이 精微호야 저문 아히 어느 통로보리잇가 ‘if the law of the Buddha is subtle, can a young child listen (understand)?’ (1447 Sŏkpo sanggŏl 6:11a). In addition, in an adnominal construction the intention can be that of the subject of the verb. Example: nilukwocye hwalq pay isyetwo 닐룩고저 홀 배 이셔도 ‘though there is something that they want to express’ (144? Hunmin chŏngǔm ᄆᆡ menn). The volitive began to show instability in the fifteenth century, and it fell into complete disuse in the sixteenth. The collapse seems to have happened in
at least two stages. In the first half of the sixteenth century, the volitive ceased to be used in constructions where it was not obligatory. The Pŏnyŏk Pak T'ongsa of 1517 contains these constructions: kwanwen-tol.h_oVy moyngkun tywohon swuwul 관련동히 흰근 도훈 수울 ‘a good wine that the officials had made’ (1:2b); mu.l_eysolmun tolk 븐례 솔문 뜯 ‘chicken boiled in water’ (1:5a); pwoipoy_lwo skwumin swunulk nwophun kwos 보이로 수민 수름 노픈 곡 ‘high mountain flowers decorating like treasures’ (1:5a). If these constructions had appeared in fifteenth-century texts, the adnominal verb forms moyngkun ‘made,’ solmun ‘boiled,’ and skwumin ‘decorating’ would have incorporated the volitive: *moyngkol_won 민곤론, *solm_won 몬, and *skwumywun 수문. The next stage in the disappearance of the volitive took place in the latter half of the sixteenth century, when the morpheme was no longer used in constructions where it had once been obligatory. This does not mean of course that the volitive disappeared from written sources all at once; it continued to be seen in some texts until much later. But the Sohak o˘nkhae of 1587 shows that by the time that work was published the morpheme had already fallen into disuse; for example, the volitive was not transcribed in the nominalizations ancom 안 좀 ‘sitting,’ epsom 염 솔 ‘not having,’ mekum 먹 금 ‘eating,’ and psuem 풀 ‘using.’ In the fifteenth century, those forms would have been *ancwom 안 좀, *epswum 염 솔, *mekwum 먹 금, and *psuwum 풀.

(2) Honorifics Three prefinal endings were used in the Middle Korean honorific system: the honorific -(o/u)si-, the deferential -zoW-, and the politeness marker -ngi-.

Honorific -(o/u)si- Adding -(o/u)si- to a verb or adjective showed respect for the subject. Examples: mol thwon cahi kennesi.ni.ta 월 톤 자히 건너시니타 ‘he [the monarch] crossed over on horseback’ (1447 Yongbi o˘nk a34); wocik pwuthyey_za NUNG_hi al osi 오직 부터이 능히 아서니 ‘only Buddha fully knows’ (1463 Pŏphwa kyŏng o˘nkhae 4:63a).

The morpheme -(o/u)si- had two morphological peculiarities. One was an underlyingly low-pitched initial vowel.\textsuperscript{25} Examples: cãpösii 자반시니 (cãp- 잡 ‘catch’) (1447 Yongbi o˘ch’on ka 24); cwôchsya 조추사 (cwôch-추 ‘chase’) (1447 Yongbi o˘ch’on ka stanza 112). The other peculiarity was that -(o/u)si- plus the volitive -wo/wu- became -(o/u)sya-; e.g., kasyam kyesya. m_ay 가삼 거沙特매 ‘in going or staying’ (1447 Yongbi o˘ch’on ka stanza 26). In addition, the honorific added to the infinitive -(o/ue) was also realized as -(o/usya); e.g., [HOY-TWONG LYWUK-LYWONG]_i nolosya 海東 六龍이 늘룡사 ‘the Six Dragons of Haedong fly’ (1447 Yongbi o˘ch’on ka stanza 1).

\textsuperscript{25} The pitch of the vowel is evident only if there are no preceding high tones in the word.
This form -(o/u)sya fell into disuse in the sixteenth century, as can be seen already in the 1518 text Iryun haengsil to, where it was replaced by -(o/u)sye; e.g., nimkwum_i ... Kwongye_y lol pullle pwosye 날님이 ... 공예를 뿔러 보서 ‘the king ... called and saw Kongye’ (27).

Deferential -zoW- The morpheme -zoW- expressed deference toward the person affected by the action of the verb. Just as -(o/u)s- indicated respect for the subject, -zoW- exalted the object. For example, if subjects of the realm had caught a glimpse of the king, -zoW- was added to the verb to show the people’s deference toward him. Here are some illustrative citations: icye pwuthyes QWUY-LUK_ ul nipsoWoWa 이제 부셋 威力을 넘스바 ‘now he received the power of the Buddha’ (1447 Sŏkpo sangjŏl 9:39b); pwuthyes SSYANG_ ol moyngkola cwohon CCWA_ ay PPyEN-QAN_ hi nwo.ssopkwo 부셋像을 빛나 조혼 座에 便安히 노숍고 ‘he made an image of the Buddha and placed it comfortably on a clean stand’ (1447 Sŏkpo sangjŏl 9:22b); ZYE-LOY_s ilhwu.m ul tutoWoMyen 如來서일후들 들즉별면 ‘if one hears the name of a buddha’ (1447 Sŏkpo sangjŏl 9:18b); nay ZYE-LOY nilosyan KYENG_ ey UY-SIM_ ol ani hozapnwonı 内 如來 나르산 經에 疑心을 아니 혼들도다 ‘I entertain no doubts about a sutra related by a buddha’ (1447 Sŏkpo sangjŏl 9:26b); PWUL-SSYANG wolhon nye.k ulwo kams.twozpko 佛像 을혼 니그로 객도숍고 ‘turning to the right side of the statue of Buddha’ (1447 Sŏkpo sangjŏl 9:23a); [ZIN-NGUY CI PYENG]_ul [LYWOW-CA]_i kissoWoni 仁義之兵을 遼左 | 갓스بث니 ‘Liaodong (people) rejoiced over the Righteous Army’ (1447 Yongbi och’ŏn ka stanza 41); [SAM-CCUK]_i cwochopkenui 三賊이 졸졸거늘 ‘three robbers [i.e., Mongol leaders] pursued [T’aego]’ (1447 Yongbi och’ŏn ka stanza 36).

As can be seen, in part, from the above examples, the deferential -zoW- appeared in a variety of phonological shapes. Following k, p, s, or h, it was -soW- (-s-); after a vowel, n, or m, it was -zoW- (-z-); and after t, c, or ch, it was transcribed as -coW- (-c-). The -W- at the end of the morpheme devoiced to -p- when followed by a consonant.

The tone of the deferential also varied. Following a stem with a high or rising pitch, the tone marked on the deferential could be high or low, depending on prosody. Examples: pwózoWánti ‘보속 반디’ (1459 Wŏrin sŏkpo 10:1b); pwózožpko wúžpžpknul ‘보숍·고 ... 우주적거늘’ (1459 Wŏrin sŏkpo 10:1b); pwózyoWólal ... ćtćpęye ‘보속보라 ... 음 moden’ (1459 Wŏrin sŏkpo 2:69a). Following a low-pitched stem, the deferential was devoiced and was realized as -s-. In case the preceding obstruent was an apical stop or affricate (t, c, or ch), the resulting pronunciation (t + s) was ts, which was written as -ts- because the letter ㅈ transcribed the sound [ts]. See the discussion of spirants, section 5.3.1.6 above.
low if it preceded a vowel, and rising if it preceded a consonant. Examples: *méksoWóní 먹수·낯내 (1459 Wŏrin sŏkpo 7:26a); nipsŏpkwo 날습니다 (1459 Wŏrin sŏkpo 2:72a). This behavior is that of the low/rising verb stem sŏW-~sŏlp- ‘report (to a superior),’ with which the deferential is etymologically related. Both earlier forms can be reconstructed as *sŏlWó-.

**Politeness marker -ngi-** The morpheme -ngi- was added to verb forms to show respect for the listener. It marked the discourse as polite style. Verb forms in this most polite style include hono.ngita, holi.ngita, hono.ngiska, holi.ngiskwo, etc. (ᄒannya, ᄄり이다, ᄃcounts, ᄄり있다). Examples of usage: SSIM_hi khu.ngi ta SYEY-CWON_ha 甚히 크이다 ‘it is extremely great, o Shakyamuni’ (1464 Kŭmgang kyŏng o˘nhae 61b); kutuys sto.l ol maskwocye hote.ngi 그것 뜻을 맛고져 흉터이다 ‘he has been wanting to meet your daughter’ (1447 Sŏkpo sangjŏl 6:15a).

In fifteenth-century texts, a slightly less formal style of discourse was characterized by verb forms such as hononingta (a contraction of polite hononi.ngita), and honwoniska. This same speech-style difference was indicated in imperatives, for example, by the use of the less deferential hoyassye (야써) instead of the more polite hosywosye (쇼셔) form. Dialogs found in Middle Korean texts clearly reflect this interplay of speech styles. For example, the following passage from the 1447 Sŏkpo sangjŏl (6:16a-18a) records the less formal style. Here, a conversation takes place between two equals, Sudatta and Homi (護彌), both wealthy contemporaries of Sakyamuni:


‘Sudatta asked Homi: “What dishes is the host taking trouble to prepare with his own hands? Do (you) invite the crown prince, wishing to serve him? Do (you) invite the minister, wishing to serve
him?” Homi replied: “It is not so.” Sudatta . . . asked again: “Why do (you) call (him) the Buddha? Tell me the meaning of it!” He answered: “Have you not heard? The son of King Suddhodana, the one who is called Siddhartha, has knowledge of the three realms of existence [past, present, and future], and so they say he is the Buddha.”

A few pages later in the same text (6:21b-22a), Sudatta speaks with Sakya-muni. In this conversation, the more formal and polite style reflects the distance between the rich merchant and the holy man:


‘Sudatta said to the Buddha: “O Living Buddha! Come into our land and diminish the wickedness of all living things!” Sakyamuni spoke: “One who has renounced this earthly existence is not the same as the layman, and since there is no monastery there, where could I go?” Sudatta said: “I will build one for you.”’

(3) Tense and aspect The tense and aspect system of Middle Korean was made up of five prefinal endings: processive -no-; durative (aorist) -ni-; past (perfective) -ke-, -ale-; retrospective (imperfective) -te-; and future (conjectural) -li-. These morphemes are often referred to as tense markers, but they are perhaps better understood as markers of aspect.

Processive -no- The morpheme -no- indicated that the action of the verb was a process taking place at the present time, or that happened generally without regard to time. Examples: SAMI samwolye honota hol_ssoy 沙彌 사모려 흰눈더 혼식 ‘since [he] says he intends to make [him] into a religious novice’ (1447 Sŏkpo sangjŏl 6:2a); kwoc tywokhwo yelum hanoni 곶도로 여름 하늘니 ‘its flowers are good and the fruit is bountiful’ (1447 Yongbi och’ŏn ka stanza 2).

A morphological peculiarity of -no- was its tone. While virtually all other endings were marked with high tones, the pitch of this morpheme was consistently low following a low-pitched stem. Example: āskāWŏn ptŭt.i īsnŏnìyé 악가·본·또·있·있는·니어 ‘do you have thoughts of regret?’ (1447
Among Middle Korean inflectional endings, only -no- and -ke- were verifiably unaccented in this way.27

**Durative (aorist) -ni**  The prefinal ending -ni- indicated that a movement or motion was drawn out over a period of time, or that happened generally and was not bounded by time. In these latter usages, it was similar to time-unrelated uses of -no-. Examples: nyenu swuyn ahoy_two ta CHWYULQ-KA_honila 녕느 쉤 아희도 다 出家합니다 ‘the other fifty children, too, all renounced the world’ (1447 Sökpo sangjol 6:10a); mochomnay cey ptu.t_ul sile phyeti mwot_hwolq nwo.m_i ha ni la 내제들 시려 피디 몽홍 노미 하니라 ‘there are many who, in the end, are unable to express their feelings’ (144? Hunmin chŏngǔm ŏnhae 2b). In origin, -ni- was derived from the modifier ending -ni/lu/ni plus the copula.

**Past (perfective) -ke-,-a/e-**  Both of these two morphemes, -ke- and -a/e-, are thought to have shown completion of an action or a change of state in the past, but their meanings are not altogether clear. Nor is the difference between them known with certainty, though it has been proposed that -a/e- was used mainly with transitive verbs, while -ke- was used with intransitive verbs, adjectives, and the copula. Moreover, as noted above, -ke- was unaccented (i.e., it was marked as a low tone), while -a/e-, like almost all other endings, was accented. Examples: PPI-KHWUW_tolye nilGwotoy: “Tye cywung_a nilGwey homa tatoketa” 比丘 노리 담아 담아 다둘거다 ‘he said to the Buddhist mendicant: “That monk already arrived nine days ago”’ (1447 Sökpo sangjol 24:15b); nwolGay_lol pullwotoy: “QAN-LAK-KWUYK_inon api_lul pwola kani emi_two mwot pwoa silu.m_i tewuk kipke” 好야를 놀려 우리에게 먹어 나다시피 ‘he sang a song, saying: “In paradise he went to see his father but could not also see his mother, and so his sorrow was deeper”’ (1459 Wŏrin sŏkpo 8:101); “CWON_hosin NGWANG_i epsusini nala.h_i QWUY-SSIN_ul ilhetay” 慈온 신이 업스시니 나라히 威神을 일하다 하고 ‘saying, “since there was no king to be honored, the country had lost the power of the Buddha”’ (1459 Wŏrin sŏkpo 10:9b).

Another complication was that -ke- was realized as -Ge- (and written -어-) following y, /l/, or the copula; e.g., towoyGenul 돼있어, alGenul 알어, mozo.m iGenul 만수미어는. The morpheme also had a curious suppletive alternate. Although -ke-, too, was sometimes found after the verb stem

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27 The politeness marker -ngi- may also have been unaccented; Kim Wanjin (1973, p. 36) gives cogent arguments why the morpheme should be thought of as having had an underlying low tone. However, restrictions on the morphological environment in which it occurred make that assertion difficult to verify. There were also two other accentually unusual endings that should be noted. One was the honorific -(o/u)si-, whose first, epenthetic syllable was unaccented; the other was the deferential -soW-, which also had a low-pitched (first) syllable.
wo- ‘come,’ the usual form of the perfective after that particular stem was the unique form -na-, which only occurred there; e.g., wonaton 오나또.

Retrospective (imperfective) -te- The retrospective -te- was used by a speaker recalling an action that had taken place in the past but, at the time of the recollection, had not been completed. Examples: LYWONG kwa KWUY-SSIN_kwa wuy hoya SYEYWULQ-PEP_hotesita 羅 과 鬼神과 위훈야 說法 좋디시다 ‘[Sakyamuni] was preaching for the sake of dragons and spirits’ (1447 Sŏkpo sangjŏl 6:1a); nimku.m_i nakaysteni 남그미 나켓디시니 ‘the king took flight’ (1447 Yongbi ᄒᆡᆼ شيء ka stanza 49).

Retrospective -te- was realized as -le- following the copula; e.g., SYA-NGWUY KWUYK salo.m_i SSIP-PALQ QUK_i 舍衛國 사르미 十八億이라니 ‘the people of the state of Sravasti were 1,800 million’ (1447 Sŏkpo sangjŏl 6:28a).

Future (conjunctural) -li- The prefinal ending -li- was used for conjectures about things that had not yet taken place. Examples: tangtangi i phi_lol salom towoyGey hosililila 닭다이라 피울 사름 드 왠에 호시리라 ‘[heaven] will as a matter of course make this blood into people’ (1459 Wŏrin sŏkpo 1:7b-8a); NYELQ-PPAN TUK_hwo.m_ol na kotkey holilila 混譜 得효물 나 군계 호리라 ‘will let her achieve nirvana like me’ (1447 Sŏkpo sangjŏl 6:1b).

In origin, -li- was composed of two morphemes, the prospective modifier ending -(으)lq plus the copula i-. For this reason, it shared morphological peculiarities with the copula, which meant that following -li-, -te- was realized as -le-, and -ke- as -Ge- (-어-). Thus, -lile-, which combined -li- with -te-, indicated an incomplete action in the future, while -liGe- (-리어-), combining -li- with -ke-, was used when speculating about a completed act in the future. Examples: KWONG-TWOK_i ile tangta.ng_i pwuthyey towoylilela 功徳이 이러 닭다이라 부터 드와리러라 ‘accumulating virtuous deeds, he will as a matter of course be becoming a buddha’ (1447 Sŏkpo sangjŏl 19:34a); CYENG-KAK nalay macwo pwoliGeta 正覺 나래 마조 보리이다 ‘will meet on the day of enlightenment’ (1459 Wŏrin sŏkpo 8:87).

(4) Emotives Emotives were exclamatory or poetic in effect.

-twos-. The emotives often encountered in Middle Korean texts include -two- and -twos-; these morphological units (which appear to have incorporated the volitive -wo/wu/) were found in such endings as -twota- 도따, -twoswota- 도소따, and -twoswo.ngita- 도소이다. Following conjunctural -li- or the copula, -two- and -twos- were realized as -two- and -twos-. Examples: i kaksi_za nan etminun mozo.m_ay mastwota 이 각시자 내 얻니는 모순 맛 도따 ‘this very girl is the one I’ve been wanting to have!’ (1447 Sŏkpo sangjŏl 6:14a-b); pwoni no.m oy ci[p]s_tam tol ta mulGetitwostela 보니 눈이 짜릿담따 놀어디듯더라 ‘I see the walls of his house have all fallen down!’ (1517 Pŏnyŏk Pak T’onga 1:9b); ywuyey psuliwota 유에 쓰리로다 ‘we will spend enough [money]’ (1517 Pŏnyŏk Pak T’onga 1:2a).
-s- In addition, the -s- seen in endings such as -kest-a -것다, -nwo-sta -돕다, -tasta -맡다, and -syasta -مشاريع (and in -twos- as well) is believed to have been an emotive. This -s- was usually found together with the volitive -wo/wu-. Examples: [HWAN-NAN] ha.m_ay [PHYEN-AN]_ hi sati mwot hoswo-la 患難 하매 便安히 사다 본 희소라 ‘with so many misfortunes we cannot live at ease’ (1481 Tusi ônhae 8:43a); ne-huy tol.h_i musu.k_ul pwo.nosonta 너희둘히 도스글 보느순다 ‘what do you people see?’ (1459 Wörin sòkpo 10:28a); ne-huy tol.h i alasola 너희둘히 아라스라 ‘you people know them’ (1459 Wörin sòkpo 10:26).

-kwa-, -kwas- Finally, the prefinal endings -kwa- and -kwas- are believed to have worked as emotives. Example: ta kacang kiske nyey epten i_lol etkwala hoteni 다 가장 갖켜 네 엽던 이들 앞과라 희더니 ‘all were most happy and said that, Oh! they had got something that in earlier times had not existed’ (1447 Sòkpo sangjól 19:40b).

**Sequences** Preliminary endings occurred in a fairly fixed order relative to each other. The following forms of the verb ho- ‘do, be’ illustrate typical sequences:


The basic order in the fifteenth century was as indicated below:

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<tr>
<td>deferential</td>
<td>past/retrospective</td>
<td>honorific</td>
<td>present/aorist</td>
<td>volitive</td>
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<tr>
<td>-zoW-</td>
<td>-te-</td>
<td>-(o/u)si-</td>
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<td>-two(s)-</td>
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In this formulation, the past and the present were mutually exclusive categories, as were the present and the future. But the past (retrospective) and the future (conjectural) were not. As we have seen, both -lile- and -liGe-occurred freely in Middle Korean. These two sequences constituted exceptions to the above formulation. In other words, whenever a retrospective morpheme was combined with the future (conjectural) morpheme -li-, it appeared out of its usual order. There were other exceptions as well. The usual ordering of a past (retrospective) morpheme and the honorific was -kesi- or -tesi-. But even in the fifteenth century there were already examples of -sike- and -site-. This reordering later became permanently fixed in the Early Modern period.

**Final endings**

**Modifiers** As in Korean today, predicates used to modify nouns or noun phrases were marked with special modifier endings. There were two of these: -(o/u)n and -(o/u)lq.
Modifier -(o/u)n The ending -(o/u)n was, in its basic usage, much the same as its modern reflex. When attached to an adjective, it signaled the present tense or a general quality removed from time; e.g., *pwulhuy kiphun namkon 불휘 기픈 남군* ‘a tree whose roots are deep’ (1447 Yongbi ḍoch’ён ka 1).

When attached to a verb, it marked past or completed action; e.g., *pwuthyes i.p_eyes na atan.i 부تقدم 아데서 난 아드리* ‘a son born from the mouth of the Buddha’ (1463 Pŏphwa kyŏng ḍonhae 1:164b).

However, -(o/u)n was in essence time-neutral. It combined with tense and aspect morphemes to form the modifiers -non, -ten, -ken, and -lin, which added considerably to the complexity of modification. Examples: *no.m_on culki non na.l_ol* 즐기 날로 ‘days others are enjoying’ (1447 Yongbi ḍonhak a stanza 92); *epsten penkey lul* 업던 번거로 ‘lightning which had not been there’ (1447 Yongbi ḍonhak a stanza 30); *cwuktaka sal* Gen [POYK-SYENG] 죽다가 살언 범인 ‘one cannot tell it for the reason that in the end one will not become a buddha’ (1464 Kŭmgang kyŏng ḍonhae 43a).

In the fifteenth century -(o/u)n also served as a nominalizer. Although rare, textual examples can be found of deverbals with this ending functioning directly as nouns; e.g., *[QWUY-HWA] [CIN-LYE] hosi.n olwo [YE-MANG]_i ta mwotcoWona 威化振旅로서로 봉사더 다 몽주병나 ‘with his victorious return from Wihwa all popular support came together [for him]’ (1447 Yongbi ḍoch’ён ka stanza 11). The noun *elGwun* 얼운 ‘adult,’ for example, was apparently formed this way. By the sixteenth century, however, this kind of nominalization had already ceased to be productive.

Prospective modifier -(o/u)lq Much like its modern counterpart, the ending -(o/u)lq was used for conjectures about the future. It could occur together with the prefinal ending -li- (which etymologically already contained an occurrence of -(o/u)lq) as -liq; this doubling up is believed to have strengthened the force of the conjecture. Example: *THYEN-ZIN_i mwotolil ssøy CYE-THYEN_i ta kissoWoni 天人이 모드릴써 諦천이 다ilded시나 ‘all the heavens rejoiced because the angels will gather’ (1449 Wŏrin ch’ён’gang chi kok stanza 13).

Like -(o/u)n, -(o/u)lq was occasionally used as a nominalizer in the fifteenth century. But such nominalizations did not take particles, and, curiously enough, -(o/u)lq was then transcribed not with a final glottal stop but with an /s/ instead. Examples: *nwolGae_lol nwowoyya sulphu epsi pulunoni* 놀래 알소와 습수 업시 브르느 ‘he sings a song again without sadness’ (1481 Tusi ḍonhae
Nominalizers The usual nominalizer in Middle Korean was the substantive ending -(o/um). As mentioned above, -(o/um) and -(o/ulq) also served as nominalizers in the fifteenth century, but both soon became exclusively used as modifier endings. The use of -ki, which is now the most productive nominalizer, was rare at that time. In addition, the negational ending -ti was used to nominalize complements of certain adjectives, such as elyeW- ‘be difficult.’

Nominalizer -(o/um) When used to nominalize a predicate, -(o/um) was always directly preceded by the volitive -wu/-; e.g., mekwum 먹움 ‘eating’ (mek- 먹- ‘eat’), capwum 자봄 ‘grasping’ (cap- 잡- ‘grasp’), pswum 씀 ‘using’ (psu- 씀- ‘use’), phwom 폼 ‘digging’ (pho- 폼- ‘dig’), etc. The result was that, in effect, the nominalizing suffix was -wum. Examples: ancwom ketnywo.m_ay ema-nim mwolosini 안 nackt몇노매 어마님 모로시니 ‘mother was not aware of (his) sitting or walking’ (1459 Won’in sŏkpo 2:24b); nal_lwo pswum. ey PYYEN-QAN khuy hokwocye hwolq stolo.m_inila 난로 쓰며 안의 홍고져 홍 쓰로미니라 ‘for no other reason than I want to make [them] convenient for daily use’ (1447 Hunmin ch’ŏngŭm ŏnhae 3b). And because this nominalizing suffix incorporated the volitive, it gained an /l/ following the copula, and combined with honorific -(o/usi)- as -syam. Examples: NUNG hi SOYK ilwo.m i kewulwu_uy polkwomo.m kotholsila 能히 색이로미 거우루의 볼곰 근혈시라 ‘was like the brightness of a mirror’ (1465 Wŏn’gak kyŏng ŏnhae 2:59b); kasyam kyesya.m_ay wonol taloli.ngiska 가삼 거사매 오늘 다로리잇가 ‘by his going or staying, would it today be different?’ (1447 Yongbi ŏch’on ka 26).

Nominalizer -ki Though extremely rare, a few occurrences of -ki can be found in the Middle Korean corpus. Examples: PWO-SI hoki lol culkye 布施 Dịch기물 줄거 ‘delights in giving alms’ (1447 Sŏkpo san[g]ŏl 13a); kul suki_wa kal psuki wa poyhwoni 글 스기와 갈 쓰기와 비호니 ‘learn both the writing of letters and the use of the sword’ (1481 Tusi ŏnhae 7:15a).

Conjunctive endings The endings used in Middle Korean to link predicates were diverse, and the subtleties of their meanings are often difficult for us in this latter age to unravel. The most important of these conjunctive endings are discussed below.

(1) Coordinate conjunction Three endings were the principal means used to link verb forms with an “and” meaning: -kwo, -(o/um)ye, and -a/e.

-kwo ‘and then’ The ending -kwo was used to link predicates in a coordinate relationship. Just like its modern equivalent, it meant something like ‘and
also’ or ‘and then,’ and usage, too, was much the same as it is today. However, -kwo was also often followed by focus markers, either the particle (o/ut)n, the emphatic -k, or the intensifier -m, resulting in a compound ending, -kwon -곤, -kwok -곡, or -kwom -곰. Of these compounded forms, -kwon sometimes linked up with the future (conjunctural) marker -li-. Examples: kwoe tywokhwo yelim hanoni 곧도코 여름 하느니 ‘its flowers are good, and the fruit is bountiful’ (1447 Yongbi ो chóng ǒn ka stanza 2); ilhwum two tutti mwot holigwon homolmye pwo.m 이.stonye 일홈도 들디 몽희리운 흥들며 보미쓰니 ‘one cannot even hear his name, how then can one see him?’ (1485 Yŏnghŏm yak’o stanza 5); cwuk kwokcwukumye nakwok na 죽국 주그며 나고 나 ‘one dies, then one dies again; one is born, then one is born again’ (1461 Nŏngŏm kyŏngŏnhae 4:30a); hon pwuchey lol tatoni hon pwuchey yelGikwom hol ssøy 홧 부체를 다다니 홧 부체 열이곳 훌써 ‘when one closes one side of a [two-part] door, a side will open again’ (1459 Wŏrin sŏkpo 7:9).

-(o/ut)mye ‘and also’ The ending -(o/ut)mye linked predicates together in a similar way, also with the general meaning of ‘and also’ or ‘and then.’ But it was in origin complex, consisting of the nominalizer -(o/ut)m plus the postposition ye, which was apparently a contraction of iye, the infinitive form of the copula. Examples: [TTOW-MANG] ay [MYENG] ul mitumye nwolGay_yey ilhwum mituni 이_CORE.예을 믿음 두며 높아예 일홈 미드니 ‘he believed in fate for his escape, and he also believed in his name [as it was heard] in song’ (1447 Yongbi ो 족loomberg ka stanza 16); emi two atol ol mwolmye atol two emi_lol mwololini 어미도 아들을 모르며 아들도 어머를 모르러니 ‘mother will not know son, and son will not know mother, either’ (1447 Sŏkpo sangjŏl 6:3b).

The ending -(o/ut)mye could follow conjunctural -li-. It itself was sometimes followed by the postposition sye (apparently the infinitive form of the existential verb (i)si- ‘be, exist’); the combination, -(o/ut)myesye, emphasized the simultaneity of the predicates it linked. It also combined with the postposition -ng, and the result, -(o/ut)myeng, had a usage and meaning similar to that of -(o/ut)myesye. Examples: somocha+zaholimye 손무차하 효리며 ‘he will have to break through, and …’ (1472 Mongsan Hwasang pŏbŏ yangnok ŏnhae 10b); swume salmyesye epezi lol hywoyang_hoten si 수머 살머서 어 버시를 효양흐디디 ‘while he was in hiding he cared for his parents’ (1518 Pŏnyŏk sohak 8:2); teumyeng tele 더으명 더러 ‘add to and at the same time take away’ (1466 Kugŭppang ŏnhae 1:70).

Infinitive -a/e ‘and so, -ing’ This all-purpose ending (whose shape normally depended upon vowel harmony relationships) is by convention called the “infinitive” in English, even though its meaning and usage often do not correspond very well to those of infinitives found in Western languages. The common thread is that an infinitive is associated with auxiliary verbs, and in the Korean case, -a/e marked a verb functioning in a dependent
relationship with a following verb or predicate. For example, the infinitive form of *tul* - ‘enter’ was *tule*, which was used as an auxiliary with a motion verb in the meaning of ‘entering’ or ‘into’; e.g., *tule ka*- 드러가- ‘go into.’ The following passage has two occurrences of the infinitive, both of which mark longer predicates: [QILQ-KAN] [MWOW-QWOK]_two epsa, wum mwute salosini.ngita 一箇茅屋도 업사 음 무더 사르시니이다 ‘there was not even a one-room straw hut, and so, digging mud holes in the ground, they lived [in them]’ (1447 Yongbi ḍoch’ón ka stanza 111).

The Middle Korean infinitive often occurred with the emphatic -κ, and the intensifier -μ. Examples: swu.l_ul masy ek tyangsyang kocyang CYWUY_khey homyen 수를셕醉케 ‘if, having drunk wine, it always causes one to be drunk, . . .’ (1466 Kug pprint onhae 1:64); skwoli capam selu nizuni 보리 자밤 서르 니스니 ‘grabbing tails, they bound each other together’ (1482 Nammy pprint onhae 1:27b); twuze salom_i selu kolam pwule 두서 사르미 서르 그람 부리 ‘several men take turns blowing’ (1466 Kug pprint onhae 1:46).

(2) Causation endings Endings used to show the origin of, or reason for, an act or state included -(ο/υ)ni, -(ο/υ)may, -nol/nul, -(ο/υ)l_ssoy, and -kwantoy. Although the morphemic structure of each of these endings was different, their meanings and usages were so similar, the differences have still not been completely determined.

-(ο/υ)ni ‘since’ This ending, which is still found in Korean today, was the most common form used to show causation. Examples: nay ato.l_i HYWOW-TTWOW_hokwo hemul epsuni, etuti naythilywo 네 아드리 효도고 허물 업스니 어드리 내리요 ‘since [my] four sons are filial and have no faults, how can I abandon them?’ (1459 Wörin sökpo 2:6a); SYWU-TTLAQ_i . . . SYEY-CWON_ol NYEM hozoWoni, mwu.n_i twolwo polkenuø 須達이 . . . 世尊을 念ᄒᆞᆫᄡᅥ 니 누니 도로 봉거늘 ‘Sudatta called Sakyamuni’s name, and as a result his eyes regained their sight’ (1447 Sökpo sangjŏl 6:20a).

However, -(ο/υ)ni also had a range of meanings and usages besides causation. It could be translated in a variety of ways, including ‘and,’ ‘and so,’ ‘and then,’ ‘when,’ ‘if,’ ‘but then,’ etc.; the choice of interpretation was usually only derivable from context. Sometimes it simply provided a loose link to what followed. Examples: pulkun say ku.l_ul mule, [CHIM-SILQ] i.ph_ey anconi [SYENG-CO]_ey [TYEY-HHWO]_lol pwoyzWonи 불근 새 그를 므려 寢室 이폐 안즈니 聖子 帝祜에 주즉 빼숍복니 ‘a red bird, holding a letter in its beak, sat on the door of the bedroom, and showed a heavenly omen that the august son would revolt’ (1447 Yongbi ḍoch’ón ka stanza 7); PPI hon ato.l ol nahoni, saol mwot chasye mal homye 媻 혼 아드를 나сложн사올 묶자서 말ᄒᆞ며 ‘a maidservant gave birth to a son, and then, before three days had passed, he spoke’ (1459 Wörin sökpo 21:55).
This ending combined the nominalizer -(o/u)m with the locative particle ay; the literal meaning was therefore something like ‘in doing/being . . .’ Example: [HWAN-NAN]_ha-(o/u)m [PHYEN-AN]_hi sati mwot hoswola 患難償代 便安ヒサディ몬ボソラ ‘because his distress was great, he was not able to live comfortably’ (1481 Tusi ᄆᆞᆡᆼ핵 8:43a).

-nol/nul ‘as, since, when’ The ending -nol/nul was also morphemically complex, combining the modifier ending -(o/u)n with the accusative particle -(o/u)l. Since -nol/nul virtually always appeared combined together with the perfective morpheme -ke-, the functioning ending was, for all practical purposes, -kenol/kenul. Example: kolo.m_ay poy ep kenul, elGwusikwo stwo nwokisini 마르며비업거늘얼우시고또노기시니 ‘as there was no boat on the river, it was made to freeze [so he could cross] and then caused to melt’ (1447 Yongbi ᄆᆞᆡ깅 20).

-(o/u)l_ssoy, ‘as, because’ This complex form combined the prospective modifier -(o/u)lq with the postmodifier noun so ‘the fact that . . .’ and the locative particle oy (here realized as -y). (On the orthography, see section 5.2.6, above.) The ending -(o/u)l_ssoy was used only in declarative sentences, while -kwantoy (discussed below) was used in interrogative sentences. Example: polo.m_ay ani mwuy l_ssoy, koc tywokhwo yelum hanoni 아니썰ҕ℟旸고여름한논 ‘because it does not move in the wind, its flowers are good and its fruit was plentiful’ (1447 Yongbi ᄆᆞᆡ깅 ᄆᆡᆫ가 20).

-kwantoy ‘as, because’ The companion form to -(o/u)l_ssoy, -kwantoy, was also complex, incorporating the postmodifier noun to ‘the fact that . . .’ and the locative particle oy. As mentioned above, -kwantoy was only used with questions. Example: esten HHOYNG-NGWEN ul cizusik kwantoy, i SYANG ol TUK_hosini.ngiskwo 엿던행렬을지스시관تلك相율득효시니 갖고 ‘by performing what acts of compassion has he acquired this appearance?’ (1459 Wおります 21:18).

(3) Conditional endings The endings used to express meanings in the semantic range of ‘when’ or ‘if’ included -(o/u)myen and -ton/tun, as well as relatively rare forms such as -(o/u)ntay and -(o/u)lantoy.

-(o/u)myen ‘when, if’ The most common conditional ending was -(o/u)myen. Its usage was little different from that of its reflex in today’s language. Examples: woyn nye.k uy hon TYEM ul teumyen, mos nwophum swoli_wo 원너기홈DirectoryName도우면못노픈소리오 ‘when one dot is added to the left [of a syllable], it is the highest sound’ ( Hunmin 천궁핵 ᄆᆡᆼ핵 13b); panol ani machisimyen, epi ato.l i salosili.ngiska 바늘아니마치시면어비아드리를사르시랴까가 ‘if he had not hit the needle, would father and son have survived?’ (1447 Yongbi ᄆᆞᆡ깅 ᄆᆡᆫ가 stanza 52).
-ton/tun ‘when, if’ This conditional was used with the past (perfective) morphemes, -ke- and -a/e-; e.g., hoketun 희거든, hoyaton 희야든. Examples: poy kwolphoketun pap mekkwo ispuketun cowononila 빼 골프거리 붙 먹고 잊브거든 짝오니나라 ‘one eats food if he is hungry and sleeps if he is weary’ (1482 Nammyong-chip ᄆᆡ한 1:10a); azi [KWEN] hoyaton [HYENG] i kapha 아시 勸희아든 민이 가와 ‘if the younger brother offers (liquor), the elder brother returns (the gesture)’ (1481 Tusi ᄆᆡ한 8:42b).

-(o/u)ntay ‘when, if’ This conditional ending also appeared with an affixed topic particle as -ntayn or -nteyn. These topicalized forms attached to perfective -ke- or retrospective -te-, creating the endings -kentayn and -tentyen. Examples: SYWU-TTALQ_i mwuluntay, TWOY-TAP_hwotoy…. 須達이 무엇대 對答호てる ‘when Sudatta asked, [Sariputra] answered.…’ (1447 Sŏkpo sangjŏl 6:35a); THYEN-NYE_lul pwokentayn, nay kyeip_i za nwun men MI-HHWUU kottwoswo.ngiṭa 天女를 보견낸 내 거지비사 둔 면 鯤猴 곤도소이다 ‘when/if one sees an angel, my woman resembles a blind ape’ (1459 Wŏrin sŏkpo 7:12); nazawotentyen mwoxwum kithuli.ngiska 나사오 덤렌 목숨 기트리릿가 ‘if he had gone forth, would his life have been spared?’ (1447 Yongbi ᄆᆡ한 ka stanza 51).

-(o/u)lantoy ‘when, if’ This ending meant something on the order of ‘if it’s a matter of …, then …’ Example: CYENG-SYA cizulantoy, ilhwu.m_ul … “KWO-TTWOK-NGWEN” ila hola 精수 지스란티 일후블 … 孤獨園이라 흥라 ‘if you should build a monastery, call it “The Garden of Loneliness”’ (1447 Sŏkpo sangjŏl 6:40a).

(4) Concessive endings The usual Middle Korean endings used to express concession were -(o/u)na and -toy. Less common were -(o/u)ntol, -keniwa, -kenmalon, -(o/u)l spwuntyeng, and -(o/u)l syentyeng.

-(o/u)na ‘but, although, or’ The ending -(o/u)na had essentially the same meaning and usage as its modern reflex. Example: TEK simkwo.m_ol hona, natpi nekisya 德 심고물 흥나 날비 너기사 ‘he instilled virtue, but deemed it insufficient’ (1459 Wŏrin sŏkpo 10:4a)

-toy ‘although’ The ending -toy always appeared together with the volitive -wo/wu-. In addition to marking a dependent clause with a concessive meaning (‘although …’), -(wo/wu)toy was also used idiomatically with verbs of speaking (‘say,’ ‘ask,’ etc.) to introduce a quote (e.g., ‘saying as follows: …’). Examples: azoWwotoy nazawoni 아슈보티 나사오니 ‘although he knew this, he advanced’ (1447 Yongbi ᄆᆡohon ça 51); HHWA-SSYANG skuy mwutcowotoy: 和尚의 문즉오토 ‘he asked the priests (as follows):’ (1467 Moguja susimgyŏl ᄆᆡ한 7).

-(o/u)ntol ‘though, in spite of’ This ending was made up of the modifier -(o/u)n plus the postmodifier noun to ‘the fact that …’ and the accusative
particle. Example: *wola hontol, wosili.ngiska* 오라 홀돌 오시리었가 ‘though told to come, [why] would he come?’ (1447 Yongbi ೧ಚ’ён ka 69).

**-keniwa** ‘but, although’ This ending contained the perfective -ke-, the modifier -(o/u)n, the noun i ‘one,’ and the comitative particle wa. Example: *nyenu ilon sihwok swuypkeniwa kyecipi mos elyewuni* 녀느 이론 시혹 엽거니와 거지비 못 어러우니 ‘other works are sometimes easy, but (the works of) women are the most difficult’ (1475 Naehun 1.2:16).

**-kenmalon** ‘but, although’ This ending also was built on the perfective -ke- and the modifier -(o/u)n; the identity of the postmodifier noun mal (plus topic particle), however, is uncertain. Example: *twu [HYWUYENG-TTYEY] skwoy ha kenmalon, [YAK]_i hanol kyeyGwuni* 두 형제의 하건마룬樂이 하늘계우니 ‘the two brothers’ plots were many, but poison could not overcome heaven’ (1447 Yongbi ೧ಚ’ён ka stanza 90).

**-(o/u)l spwuntyeng** ‘but, although’ This ending consisted of the prospective modifier -(o/u)lq plus a postmodifier noun, spwuntyeng [spwun + ?]. Example: *CYE-TYEN_ul ani ta nilulspwuntyeng, SSLQ_eyn ta way.stenila*諸경天건을 아나 다 니률뿐녕 實則엔 다 왜차니라 ‘although they did not reach all the heavens, in reality they all came’ (1447 Sŏkpo sangjŏl 13:7a).

**-(o/u)l syentyeng** ‘but, although’ This ending also consisted of the prospective modifier -(o/u)lq plus a postmodifier noun, syentyeng. Example: *wocik [CI-LAN]_ulwo hoyywo tywokhey ho lsyentyeng, estey kwuthuyye ci.p_ul iGwus hoyaa salla holiGwo* 오직 芝蘭으로 하여 효케 홀션명 엇데 구йти여 지블 이 옷허야 살라 흐리오 ‘the iris and the orchid get along well together, but how can one force people to live together as neighbors?’ (1481 Tusi ೧نىhae 20:29a).

**(5) Purposive ending -(o/u)la** The ending -(o/u)la ‘for the purpose of’ indicated the goal of an action. It was etymologically derived from the prospective modifier -(o/u)lq plus an otherwise obsolete locative particle *a* (which was attested in Old Korean). Example: *pilmekula wosini* 빌며그라 오시니 ‘he came in order to beg’ (1459 Wŏrin sŏkpo 1:5b).

**(6) Intentive ending -lye** The intentive, -lye ‘with the intention of,’ was used much as its reflex is today. In Middle Korean, it always occurred with the volitive -wo/wu-. Example: *MYWOW-PEP ul nilGwolye hosinonka SSY-WUU-KUY_lol hwolye hosinonka* 妙法을 닐오려 효시느가 授記을 효려 효시느가 ‘does he intend to explain Buddhist law, or does he intend to make prophecies?’ (1447 Sŏkpo sangjŏl 13:25-26).

**(7) Desiderative endings** Several endings expressed desire or aspiration. These included -kwocye, -acye, -kwatye, -kwatoyye, and -kuyskwo.
-kwocye ‘want to, intend to’ This ending was the most commonly used desiderative in Middle Korean. It expressed the speaker’s desire for his own action; it contrasted with -kwatye, which the speaker used when he wanted a third party to act. Example: spolli kakwocye NGWEN honwola 볼리 가고저願ᄒᆞ노라 ‘he wants to go quickly’ (1459 Wŏrin sŏkpo Introduction: 26b).

-acye ‘would like to, want to’ Though less used than -kwocye, -acye also expressed a speaker’s own desire to do something: nay pwoacye honota 내 보아져 ᄆᆞᆯ다 ‘I would like to see him’ (1447 So˘okpo sangjo˘l 6:14b).

-kwatye ‘want (others) to’ As mentioned above, -kwatye expressed a wish to have others act. Example: QILQ-CHYEY CYWUNG-SOYNG_i ta KAY-THWALQ_ol TUK_chye KGWEN_honwo ngânta 切衆生이 다 解脫ᄒᆞ고 願ᄒᆞ노이다 ‘we want all living things to receive salvation’ (1459 Wŏrin sŏkpo 21:8).

-kwatooyye ‘want (others) to’ Though less common, -kwatooyye had very much the same meaning and usage as -kwatye. Both expressed a desire for the action of others. Example: QILQ-CHYEY CYWUNG-SOYNG_i ta pesenakwatooyye NGWEN honwo nga˘ni ta 切衆生이 다 버셔나과יתי願ᄒᆞ노이다 ‘we want all living things to escape [from earthly travail]’ (1447 So˘okpo sangjo˘l 11:3).

-kuyskwo, -keyskwo ‘wants to’ This ending marked the intended result of the action of the main verb, much as -keykkum does in Contemporary Korean. salom mata swuWi ala, SAM-PWOW ay nazaka putkuyskwo polanwola 사 комнат마다 수비 아라 三寶에 나가가 봉갓고 브라노라 ‘(I) hope that every person understands it easily and puts his reliance in the Three Treasures’ (1447 So˘okpo sangjo˘l Introduction: 6). After a verb-stem final -, the ending -keyskwo appeared as -Geyskwo (-엣고). Example: [MYEY-HHWOYK]_hon kwotay nazaka alGeyskwo hosinila 迷惑ᄒᆞ고 대 나가가 알엣고 흔시니라 ‘he wanted (everybody) to proceed to the place of illusion and get enlightened’ (1461 Nŭngŏm kyŏngŏnhae 1:113a).

(8) Projective ending -tolwok The ending -tolwok ‘to the point where, until’ projected the limit of an action or state. In the fifteenth century it had already begun to appear as -twolwok as well, and in the sixteenth century that latter form displaced -tolwok. Example: iGwus cis pu.1 un pa.м_i kiptolwok polkaystwota 이웃 것 브른 바며 김드륵 불갔도다 ‘the fire of the neighboring house was bright until deep into the night’ (1481 Tusi ŏnhae 7:6b).

(9) Increasing degree The Middle Korean form ancestral to Contemporary Korean -(u)lq swulwok ‘the more . . . the more . . .’ was -(o/u)[q] solwok, but it is seldom found in the textual record. The ending more commonly used at that time to show increasing degree was -tiGwos.
-tiGwos ‘increasing with, the more ... the more ...’ Example: TITWOW_i khun palo.l_i kothoya: tewuk tutiGwos tewuk kiphulila 道 | 큰 바로리 곧히야 더욱 드디옥 더욱 기프리라 ‘the Way is like a great sea: the farther one goes in, the deeper it is’ (1472 Mongsan Hwasang pŏbŏ yangnok ŏnhae 49a).

-(o/u)[q]_solwok ‘increasing with, the more ... the more ...’ Though rare, this ending did occur in the fifteenth century. Example: sakwoynon ptu.un nulku_l_solwok stwo [CHIN]_hotwota 사괴논 뜨든 능글스록 또 親乎도다 ‘the meaning of associating [with people] becomes all the more intimate the older one gets’ (1481 Tusi ŏnhae 21:15).

(10) Sequence and alternation Two endings were used to indicate the rapid succession of two different actions: -(o/u)la and -(o/u)nta mata.

-(o/u)la ‘and then, whereupon’ Example: pol kwuphi phyel ssozi_yey 볼 구복라 펄 쓰시에 ‘in the interval between bending and then straightening out one’s arm’ (1459 Wŏrin sŏkpo 21:4a). The ending also appeared with a suffixed emphatic -k as -(o/u)lak, and this emphatic form could be used twice to show alternating actions or conditions. Examples: wolak kalak hokwo 오락 가락 혹은 고 ‘coming and going’ (1517 Pŏnyŏk Pak T’ongsa 1:39); wololak nollak hoya 오로락 느리락 흔야 ‘rising and falling, fluctuating’ (1447 Sŏkpo sangjŏl 11:13).

-(o/u)nta_mata ‘as soon as, whereupon’ Example: chetin mu.l_un chetinta_mata ele 처틴 므른 처딘다마다 어리 ‘the dripping water froze as soon as it dropped’ (1482 Kŭmgang kyŏng samga hae 4:42). The meaning of this ending corresponds to Contemporary Korean -ca_macα ‘as soon as,’ and the forms, too, have similar origins, since both mata and maca were derived from the negative imperative verb mal-.

(11) Adverbative endings There were three adverbative endings in Middle Korean: -i, -wo/wu, and -key(/koy/kuy). These forms were treated above, in the discussion of suffixes.

(12) Negational endings A number of endings were used together with a following negative expression or predicate. These included -ti, -tol, -(o/u)ntwong, -tulan, and -tiWi. All of these endings appear to have contained (at least etymologically) the postmodifier noun to ‘the fact that ...,’ with the noun attached directly to the stem (except for -(o/u)ntwong, which incorporated the modifying ending -(o/un)).

-ti Examples: ati mwot_homye 아디 문호며 ‘cannot know’ (1447 Sŏkpo sangjŏl 11:13), ati elyeWun PEP 아디 엘레원 ‘a law difficult to understand’ (1447 Sŏkpo sangjŏl 13:40b).
-tol Examples: *PEP tuttol ani holila* ‘one will not obey the law’ (1459 Wŏrin sŏkpo 2:36b); *YAK ul cwuenul, mektol sulhi nekini* ‘when we gave them medicine, they thought it unpleasant to take’ (1459 Wŏrin sŏkpo 17:20).

-(o/u)ntwong Example: *amwo tolasye won twong mwolotesini* ‘he did not know where they came from’ (1459 Wŏrin sŏkpo 2:25b).

-tulan Example: *ettulan mwotkwo* ‘could not hold [the child]’ (1459 Wŏrin sŏkpo 10:24).

- tiWi ‘but, yet, even though, even if’ This ending was surely related to -ti, but the etymological source of the second syllable, Wi, is not clear. As has already been discussed, the ending had the form -tiWi (-티위) in the mid-fifteenth century, but shortly thereafter it came to be written variously as -tiwuy (-티위), -tiwoy (-티외), and -tiwey (-티웨); all were surely attempts to transcribe [tiwi]. Semantically, the ending had the effect of affirming more emphatically the stated fact occurring before the negative. Example: *inge y tun cwuktiWi nati mwot_hononila* ‘even when the person who is in this place dies, he will not be able to get out’ (1447 Sŏkpo sangjŏl 24:14b).

Finite verb endings The verb endings that ended a sentence indicated whether it was declarative, imperative, propositive, promissory, interrogative, or exclamatory.

Declarative The declarative ending was -ta. But after various prefinal endings, including -wo/wu-, -kwa-, -te-, -li-, and -ni-, as well as the copula i-, -ta was replaced by -la. (As has already been noted, -li- and -ni- were composed of the modifier endings -(o/u)lq and -(o/u)n plus the copula, which explains the similar behavior.) Examples: *SYA-LI-PWULQ ul SYWU-TTALQ i cwochakala hosita* ‘he said for Sudatta to follow after Saraputra’ (1447 Sŏkpo sangjŏl 6:22b); *nay poyhwanti panhoy namcuk hota* ‘I studied for a little over half a year’ (1517 Pŏnyŏk Nogŏltae 1:11); *howoza nay CWON_hwola* ‘alone I am holy’ (1459 Wŏrin sŏkpo 2:34b); *LWUW nun tala.k ila* ‘“LWUW” is a two-storied house’ (1447 Sŏkpo sangjŏl 6:2b).

Imperative There were three imperative endings, -(o/u)sywosye, -assye, and -(o/u)la, and they were distinguished from each other by the level of deference. (The imperative endings are generally used in Korea as the names of the politeness levels in the honorific system: *hosywosye-chey* (椁 쇼서체)}
'the “hosywosye” style,' *hoyassye-chey* (ᄒᆞ야 쌓혀) ‘the “hoyassye” style,’ and *hola-chey* (ᄒᆞ라 쌓혀) ‘the “hola” style.’)

-*(o/u)sywosye* Of the three imperative endings, *(o/u)sywosye* showed the greatest deference toward the listener. It was used in requests by a subordinate to a superior. Example: *nimkum_ha alosywosye* 님금하 아领土서 ‘O King, please know this’ (1447 *Yongbi ᄇᆡ῾온 ka 125).

-*assye* The ending -*assye*, also showed a degree of deference toward the listener, but the style was more relaxed than that of *(o/u)sywosye*. Example: *estyey pwutyeyla hononisika, ku ptt.u nilG* 익터 부품라 휴눈녕가, 그 뜻을 넣어써 ‘Why does one say “Buddha”? Tell the meaning of it!’ (1447 *Sŏkpo sangjŏl* 6:16–17).

-*(o/u)la* The form -*la* was the basic imperative ending – as is still the case today. In the modern standard language, it usually co-occurs with the infinitive -*a/e*, and that was occasionally true in Middle Korean as well. Examples: *nyeys ptt.u l kwothila* 넣 뜻들 고티라 ‘restore the old way of thinking!’ (1449 *Wŏrin chi῾온gang chi kok* stanzas 29); *il cyemuli hoya hemu.l_i eps* 일 저무리 휴야 허무리 익스라 휴고 ‘let there be no blunders from early morning till night, it says, and …’ (1475 *Naehun* 1:84a); *SYA-LI-PWULQ a alala* 舍利佛아 아라라 ‘Saraputra, know this!’ (1447 *Sŏkpo sangjŏl* 13:60b).

In addition to the above direct imperatives, Middle Korean also had imperative constructions that took the form of requests. These request forms were also differentiated by level in the honorific system. They included -*kwola*, -*kwolye*, and -*kwo.ngita*; and -*cila* and -*ci.ngita*.

-*kwola*, -*kwolye* These three endings were used by the speaker to ask the listener to perform some action. The ending -*kwola* was used as a direct-style request; -*kwolye* was a more indirect request that showed a measure of deference toward the listener; and -*kwo.ngita* was a request on the highest level of deference – it belonged to the “*hosywosye*” style. Examples: *PWU-CYWOK_on malssom puthye amolyey hokwo* CHYENG_hol_ssi῾la 付嘱은 말씀부터 아문래 휴고라 請홀써라 ‘*PWU-CYWOK*’ means to put words [to someone] and request to do [something] some way’ (1447 *Sŏkpo sangjŏl* 6:46a); *nayza cwuketwo mutenkeniwa i atol ol salokwola* 내사 주러도 믿던커니와 이 아두믈 사?url고라 ‘it does not matter if I die, (but) please save my son’s life’ (1481 *Samgang haengsil to, Hyoja-to* 20); *nay aki wuy_hoya ete pwokwolye* 내 아기 위휴야 어더 보고러 ‘please try to find (a daughter-in-law) for my son’ (1447 *Sŏkpo sangjŏl* 6:13b).

-*cila* and -*ci.ngita* These two endings were used when requesting facilitation of the speaker’s actions, needs, or desires, -*cila* directly and -*ci.ngita* with
deference. Both endings were always used together with one of the perfective morphemes, either -ke- or -ale-. Examples: SOYNG-SOYNG SYEY-SYEY ay kuitis kasti towoyacila 生生 世世에 그짓 가시 드외이시라 ‘I want to become your wife’ (1459 Wörin sökpo 1:11b); nay nikesi.ngita kasya 내 너거지이다 가사 ‘I would like to go’ (1447 Yongbi o˘kpo 1:11b).

Propositive Propositive sentences were invitations or suggestions to do something together with the speaker; i.e., ‘let’s . . .’

-cye and -sa.ngita There were two propositive endings, plain -cye and deferential -sa.ngita. Examples: “hontoy ka tut cye” hoyaton 홋디 가 듣쳐 듣쳐 ‘and so he said, “Let us go together and listen”’ (1447 Sökpo sangjöl 19:6b); CCYENG-THWO_ey hontoy ka nasa.ngita 淨土에 홋디 가 나사이다 ‘let us go together into the Pure Land and be born [there]’ (1459 Wörin sökpo 8:100). Plain -cye was also sometimes used together with the imperative ending -la. Example: wuli miche ka pwozoWa mozo.m_ol hwen_hi nekisikey hocycela 우리 미쳐 가 보승하 만승 물 훌히 너기시게 쓰쳐라 ‘let us go there, see [him], and rejoice [at his holiness]’ (1459 Wörin sökpo 10:6a).

In the sixteenth century, -cye also began to appear as -cya (which later developed into the Contemporary Korean propositive, -ca). Examples: pitan sa kacikwo kacya 비단 사 가지고 가사 ‘let’s buy (some) silk and go’ (1517 Pönyök No költae 2:23); ani culkiketun macya 아니 즐기거든 마자 ‘if you don’t enjoy it, let’s not do it’ (1517 Pönyök Pak T’ongsa 1:74a).

Promissory Promissory sentences ended in -ma, an ending that always appeared together with the volitive -wo/wu-. Examples: swon_ol maca mol pwonay machywo ma 소논 마자 몰 보내야 마초마 ‘welcoming the guest, (I) will send my horse to meet (him)’ (1481 Tusi önhae 21:22); nay ne_tolye nilGwoma 내 너들려 넌오마 ‘I will tell you’ (1517 Pönyök Pak T’ongs 1:32b).

Interrogative In Middle Korean, there were two types of questions: (1) yes-or-no questions asking for a choice, and (2) questions with a question word asking for an explanation. Yes-or-no questions took the ending -ka, while question-word questions took the ending -kwo.

-ka and -kwo When used as direct-style (“hola”-style) endings, both -ka and -kwo worked in two different ways. If the predicate was a nominal, they functioned as postpositions, attaching directly to the noun. If the predicate was a verb or adjective, they attached either to -ni- or to -li-. With -ni-, the combined shapes were -nye and -nywo; with -li-, the shapes were -lye and -lywo. Nominal examples: i non SYANG_ka PPELQ_Ga 이 념 賞가 頒아 ‘is this reward or punishment?’ (1472 Mongsan Hwasang pöbö yangnok önhae 53b); i esten KWANG-MYENG_kwo 이 엇던 光明고 ‘what kind of brightness
is this?’ (1459 Wŏrin sŏkpo 10:7). Verb and adjective examples: *hanye mwot hanye* 하녀 못 하녀 ‘is it great or not great?’ (1459 Wŏrin sŏkpo 17:48b); *etuy za silum epsun toy isnonywo* 어디사 시를 업슨 딘 잇느노 ‘where is there a place without sorrow?’ (1459 Wŏrin sŏkpo 10:25); *isilye epsulye* 이시려 업스려 ‘does it exist or does it not exist?’ (1463 Pŏphwa kyŏng ŏnhae 5:159a); *etuli ka* 어드리가 ‘where shall [I] go?’ (1447 Soḵpo sangjŏl 6:22a).

**Polite questions** The endings -*ka* and -*kwo* each had a polite equivalent (incorporating the polite marker -*ngi*), -*ngiska* and -*ngiskwo*. Examples: *kasyam kyesya.m_ay wonol taloli.* 가سام 견사마 오늘 말리 ‘by [the king] going or coming would it be different today?’ (1447 Yongbi o˘ch’ŏn ka 26); *[LYANG-HAN] KWO-SSO_ay este honi.* 둥한국사 이에 호니 ‘how were they as far as the ancient matters of the Two Han are concerned?’ (1447 Yongbi o˘ch’ŏn ka stanza 28).

However, the intermediate discourse style was different. In the so-called “hoyassyе” style (see the discussion of imperatives, above), both types of questions used the same ending, -*ska*. This convergence suggests that the distinction between the two types of questions was already beginning to break down in Late Middle Korean. In addition, though rare, examples of -*ka* used in (polite) question-word questions can be found in fifteenth-century texts. Example: *yesus hanol_i enuyza mos tywohoni.ngi* 여юсь 한올이 은으자 모스 투호니 ‘of the six heavens, which is the most fine?’ (1447 Soḵpo sangjŏl 6:35).

**Other question forms** Besides -*ka* and -*kwo*, there was yet another, rather peculiar interrogative ending in Middle Korean used only in case the subject of the question was the second-person pronoun *ne* ‘you.’ For this interrogative, a modifier ending, either -(o/)yn or -(o/)yln, was attached directly to -*ta*, and this complex form was used for both yes-or-no questions and question-word questions. Examples: *ney kyecip kulye kate nta* 네 견첩 그첩 거첩가 ‘did you go because you missed your wife?’ (1459 Wŏrin sŏkpo 7:10); *ney estey anta* 네 엇데 안타 ‘how do you know?’ (1459 Wŏrin sŏkpo 23:74); *ney icey_two nowoyya nom muyWun ptu.t ul twulita* 네 이예이도 묻의아 놓 의본 뜻들 줄파 ‘do you now also again have the intention to hate others?’ (1459 Wŏrin sŏkpo 2:64a); *ney culkye nay emi_lul hywoyang_holita* 네 줄게 내 에미를 효앙하디 ‘will you gladly care for my mother?’ (1587 Sohak ŏnhae 6:50).

Finally, a kind of rhetorical question was formed using -i.ston, -i.stonye, or -i.stoni.ngiska. Examples: *ati mwot homyen SIK_i aniGeni.ston* 아디 못혼든 시끼 아니겐니 ‘when one doesn’t understand it, can it be knowledge?!’ (1461 Nŭngŏm kyŏng ŏnhae 3:47b); *mwo.m_ays kwoki_latwo pinon salo. m_ol cwuliGeni homolmye nyenamon chyenyla.ngi.stonye* 모맷 고기라도 비는 사물물 주리어니 흥들며 너나문 천라이쓰년 ‘because I would even
give the begging man flesh of my body, how much more other goods?!” (1447 Sŏkpo sangjŏl 9:13a), homolmye QA-LA-HAN KWA lol TUK_kuy hwomi. stoni.ngiska 흥물며 阿羅漢果를 得의 호미쓰니잇가 ‘how much more [will one do] to attain the level of the Arahan?!’ (1447 Sŏkpo sangjŏl 19:4b).

Exclamatory In the fifteenth century the most common exclamatory ending was -twota. In the sixteenth century, that ending was replaced by -kwona, a form ancestral to Contemporary Korean -kwuna. Other endings used in exclamations included -(o/u)ntyе and -(o/u)lsye.

-twota The ending -twota was made up of the emotive -two- plus the declarative ending -ta. Examples: i kaksi_za nay etninwon mozo.m_ay mas twota 이 각시나 내 얻니는 몇승매 맞도다 ‘precisely this bride is the one I wish to have!’ (1447 Sŏkpo sangjŏl 6:14ab); stwo molkon kolo.m_i nakunay silu. m_ul solwo.m_i is twota 또 몰곤 귀로미 나그내 시르를 손으로 잇도다 ‘And again, the clear river melts away the sorrows of the wanderer!’ (1481 Tusi onhae 7:2a).

-kwona The earliest attestation of -kwona comes from Ch’oe Sejin’s Pŏnyŏk Pak T’ongsa, which was written around 1517: tywohon ke.s_ul mwolonontos hokwona 토혼 거슬 모르는듯 종고나 ‘[the innkeeper] seems not to know a thing of quality!’ (1:73a). Occurrences of the ending can also be found in Ch’oe’s other language textbook, Pŏnyŏk Nogŏltae.

-(o/u)ntyе and -(o/u)lsye These endings can be etymologically analyzed as the modifier endings -(o/u)n and -(o/u)lq plus a postmodifier noun to or so and the copula. Examples: sulphuta nyeys-salo.m_oy ma.l_ol ati mwot_honwontye 슬프다 벼서르민 마을 양미리 못혹논더 ‘it is sad; one cannot understand the words of people of ancient times!’ (1482 Nammyŏng-chip ŏnhae 2:30b); nay atol_i eti lsye hosini 내 아드리 어็ด써 흥시니 ‘[the king] said, how wise is my son’ (1459 Wŏrin sŏkpo 2:7a).

Beginning with the Wŏn’gak kyŏng ŏnhae of 1465, the ending -(o/u)lsye was consistently written as -(o/u)lsye, without transcribing the reinforcement of s. This practice corresponds with the virtual disappearance of initial geminates from the textual record. (See section 5.2.1.3, above.) Example: khulxsye MEN-PEP_i puthe pluswumiye 클서 萬法이 브터 비르수미어 ‘how great! all laws begin with this’ (1465 Wŏn’gak kyŏng ŏnhae Introduction: 31a).

5.5 Syntax

The syntactic structure of Middle Korean was much the same as that of the language today. Then, as now, the typical sentence ended in a verb, and that verb could be preceded by an unspecified number of nominal or adverbial
phrases. Oftentimes such phrases stood unmarked, in absolute position, their meanings and functions dependent upon context; other phrases were marked by postposed case particles or various "special particles.” Modifiers preceded modified. Ellipsis of elements understood from context, a process as common then as it is today, was generally preferred to pronominalization. Such typological features have characterized Korean at all its historically attested stages.

Nevertheless, though Korean syntax has been remarkably stable over time, people in the fifteenth century did not put their sentences together in exactly the same way that their descendents do today. Changes can be found in a number of specific structural details.

5.5.1 Dependent clauses

One of the most important syntactic differences between Middle Korean and later stages of the language can be found in the formation of dependent clauses. In Korean today, the subject of a dependent clause is normally marked with a nominal particle – just as it would be if it were an independent sentence. For example, the subject has the same form in both Swutal_i sassta ‘Sudatta bought [it]’ and Swutal_i san kes ita ‘it’s something Sudatta bought.’ In Middle Korean, however, the subject of a modifying clause was transformed into a genitive. Take the following passage, for example: i TWONG-SAN_on SYWU-TTALQ_oy san ke.s iGwo 이 동산은 須達이 산 거시오 ‘this garden hill is the one Sudatta bought, and . . .’ (1447 Sŏkpo sangjŏl 6:39-40). Here, the genitive particle oy marked the subject of the dependent clause, so that the literal meaning of the passage was something like ‘this garden hill is Sudatta’s bought thing, and . . .’ Here are additional examples: nay_oy emi NGWUY_hoya PALQ hwon KWANG-TTAY SSYEY-NGWEN_ol tulusywosye 내이 어미 爲 tengo 发혼 廣大誓願을 드르셔 ‘hear the great vow that I have made for the sake of the mother’ (1459 Wŏrin sŏkpo 21:57); HHWO-W_uy hoywon i.l ila hoye nilotengita 浩의 홍은 이리라 홍여 나른더이다 ‘he said it was an act that Hao had done’ (1518 Pŏnyŏk sohak 9:46).

Subjects in nominalizations were also marked as genitives. Examples: NGUY-KON_oy CHYENG-CCYENG_hwo.m i ile holssoy 意根이 清淨호미 이러홀써 ‘because the purity of the spirit is thus’ (1447 Sŏkpo sangjŏl 19:25a); nay_uy SSYWU-MMENG TTYANG-NGWEN nilGwo.m_ol tutkwo 내의 壽命 長遠 날오름 듣고 ‘listening to my preaching on the long life’ (1463 Pŏphwa kyŏng ḍŏnhae 5:197a).

A secondary feature of these structures is that personal pronouns were doubly marked as genitives. For example, nay ‘my’ and ney ‘your’ appear as nay_oy and ney_uy in the above citations.

There was yet another, more curious treatment of subjects in dependent clauses. In the following examples, the subjects appear to be marked with the
accusative particle (of/ul), as direct objects: salo_m_oy i_l ol tapwos wolm-tos_hwo.m_ol suhnwnoni 사르미 이룰 다 갖고 월월 손노니 ‘he is grieved that the affairs of men are like the [tangled] movement of mugwort, and so . . .’ (1481 Tusi ônhae 7:16a); wocik stwong_ul tolmye pswu.m-ul maspwol ke_s_il 오직 줄을 들며 뿌듯 맛볼 거시라 ‘(you) do taste only whether the dung is sweet or bitter’ (1518 Pönyöök sohak 9:31).

5.5.2 Zero case marking

While unmarked subjects and objects are common enough in colloquial Korean today, the omission of nominative and accusative particles appears to have been even more frequent in the fifteenth century. In Middle Korean texts, unmarked subjects are particularly common before adjectives or intransitive verbs. Here are a few examples: kwoc tywokhwo yelum hanoni 꽃 도코 여름 하느니 ‘its flowers are good and the fruit is bountiful’ (1447 Yongbi ôch’dan ka stanza 2); pwuthye wosikenul pwozopkwo kwa_hozoWa 부터 오시거든 보습고 파혼숙바 ‘since the Buddha had come, he saw Him and praised Him’ (1447 Sŏkpo sangjöl 24:7b); kotok_homye pwuywum isnon kes_i 재 독하며 빌을 있는 것이 ‘the existence of waxing and waning’ (1482 Kūmgang kyŏng samga hae 2:6b); [PPANG-SYWU]_honon toys pwu.ph_ey salom toonili kuchuni 防戍는 높 부례 사름 들니리 그츠니 ‘at [the sound of] the drum of the border guard’s place, people stop moving around, and so . . .’ (1481 Tusi ônhae 8:36b). Unmarked accusatives were, if anything, still more common. Here are some examples: QA-SYWUW-LA_non pska nallon 아사로는 알 바 나느니라 ‘breaking the egg, Asura was born’ (1447 Sŏkpo sangjöl 13:10a); say cwohon vos nipkwo [HYANG] pwuywukwo 새 조혼 월 닝고 졸 취우고 ‘(you) put on new, clean clothes and burn incense and . . .’ (1461 Nŭngŏm kyŏng ônhae 7:6a); ku kyecip_i pap kacyetaka mekikwo 그 거지비 밥 가치다가 먹기고 ‘the woman, taking the rice and then feeding it, . . .’ (1459 Wŏrin sŏkpo 1:44a).

5.5.3 Comitative particles

In the Korean language today, the first of two nouns linked together in coordination is regularly followed by the comitative particle wa/kwa.; e.g., pap_kwa kimchi_lul mekessta ‘I ate rice and kimchi.’ Occasionally both nouns are followed by the particle; e.g., pap_kwa namul_kwa sekkese mekessta ‘I ate rice mixed together with greens.’ In the fifteenth century, this kind of multiple use of the comitative particle was the norm, and the case marking that applied to the nouns was usually added after the last occurrence. For example, in the following passage the coordinated nouns function as the sentence subject, and so the second noun is followed by wa plus the nominative particle i (wa 와): CHI-TTWUW wa CYENG-CHI.way kolhooyywo.m_i
isnoni 齒頭와 正齒에 구희요미 있느니 ‘[in the sounds of Chinese] dental spirants and “upright” dentals are distinguished’ (Hunmin chŏngŭm ŏnhae 14b). Here is a much more complex example of multiple particle use: pis kwa swoli wa HYANG kwa mas kwa mwo.m ay pemkunun kes kwa PEP kwa oy tywohomye kwucwu.m ul alwo.m i LYWUK-SIK ini 빗과 소리와 손과 맛과 모매 범그는 것과 法과이 像히며 구주물 아로미 六識이니 ‘the perception of good and bad of light, sound, smell, taste, things that concern the body, and the law – these are the six senses’ (1447 Sŏkpo sangjŏl 13:38-39). And two more examples: LYWUK-TTIN kwa LYWUK-KON kwa LYWUK-SIK kwa lol mwotwoa 六塵과 六根과 六識과물 모도아 ‘the six sensory worlds, the six sense organs and the six senses together’ (1447 Sŏkpo sangjŏl 13:39a); pwuthye wa cywung kwas kungey 부텨와 쪽것에 ‘to the Buddha and also to the monks’ (1447 Sŏkpo sangjŏl 13:22b).

In the fifteenth century, the last occurrence of the particle was occasionally omitted; e.g., polom kwa kwulwu.m un 風과 구류문 ‘wind and clouds’ (1481 Tusi ŏnhae 20:53). But in writings from the early part of the sixteenth century many examples of the older, multiple-particle use could still be found. In the Pŏnyŏk sohak text of 1518 they are numerous; e.g., CHYWUN kwa CIN kway 樸과 津쾌 ‘[the brothers] Ch’un and Chin’ (9:74); swul wa cye wa lol 舀와 저와 ‘spoon and chopsticks’ (9:76); KWO-SOM kwa HHWANG-LYEN kwa HHWUNG-TAM kwa lol 苦蔘과 黃蓮과 熊膽과 ‘bitterroot, yellow lotus, and bear’s gall’ (9:106). However, it was precisely these examples that were all corrected in the Sohak ŏnhae text of 1588: CHYWUN kwa CIN i 樸과 津이 (6:69); swul wa cye lol 舀와 저들 (6:76); KWO-SOM kwa HHWANG-LYEN kwa HHWUNG-TAM ol 苦蔘과 黃蓮과 熊膽 옱 (6:99). Since the Sohak ŏnhae is one of the earliest texts to show these historical facts clearly, we can surmise that the syntactic change took place toward the end of the Middle Korean period.

5.5.4 Other changes in particle use

In Middle Korean, the adjectives kot_ho- 像히- ‘be alike’ and sso- 쓴- ‘be worth (something)’ took complements with the nominative particle i.

Examples: pwuthyey POYK QUK SYEY-KAY yey HWA-SIN_hoya KYWOW-HWA_hosya.m i toli cumun kolo.m ay pichwuuywo.m i kot_honila 부톄 百億 世界에 化身ᄒ야 敷敻ᄒ사미 닦리 즌문 黙문 비취요미 像ᄒ니라 ‘the Buddha taking on human form in a hundred thousand million worlds and edifying [the people] is like the shining of the moon on a thousand rivers’ (1459 Wŏrin sŏkpo 1:1a); mal naywo.m i CYWUY hon salo.m i kot_homey hocuculwo.m i SSYWOK-CO i kot_hoya 말 내요미 醉ᄒ➜ 사로미 像ᄒ며 황저즈로미 俗子이 像ᄒ야 ‘speaking words is like a drunken man, and doing wrongful deeds is like a common man’ (1472 Mongsan Hwasang pŏb yolg nok ŏnhae 47b); ilhwum nan tywohon wo.s i piti CHYEN MEN i ssomye 일홈난
Already in the fifteenth century, *kot_ho*- ‘be alike’ was also occasionally used with the comitative particle *wa/kwa*. Examples: *SYEY-KAY_wa kot_ho_ya* 世界와 군호야 ‘like the world’ (1447 Sŏkpo sangjŏl 9:11b); *hanol_khwa kothwotoy* 하놀과 국토디 ‘though it is like the heaven’ (1459 Wŏrin sŏkpo 1:14b). That pattern soon became dominant. For its part, sso-* ‘be worth (something)’ often took unmarked complements; e.g., *kap.s_i CHYEN MEN ssoniwa* 감시 千萬 쌓니와 ‘the price is worth a thousand time ten thousand’ (1463 Pŏphwa kyŏng ŏnhae 1:82b).

The adjective *talo-* ‘be different’ took complements with the locative particles *ay*, *aysye*, and *oykey*, as well as with the particle *twukwo* ‘than.’ Examples: *nalas malsso.m_i TYWUNG-KWUYK_ey tal Ga* 나라 말소고 중국에 달아 ‘[our] country’s language is different from [that of] China’ (Hunmin ch'ŏngǔm ŏnhae 1a–b); *KANG-HHA_i homa swuykwu.ng_ey tal Gwotoy* 강하이 혼마 스유고우고 ‘although a river is already different from a cesspool’ (1459 Wŏrin sŏkpo 18:46); *salo.m_oykey tal Gwon kwo.t_on* 사로게 달온 고온 ‘the thing that is different from people’ (1467 Moguja susimgyol ŏnhae 20); *pwontoys swoloy_twukwo tal on ptut* pwontoys 소주 이다 달어 ‘if one uses a sound and meaning different than the original sound, …’ (1527 Hunmong chahoe Introduction: 4b).

Later, in the Early Modern period, *talo-* ‘be different’ was used with the comitative particle *wa/kwa*, but that usage could already be found in the 1447 Yongbi ǒch’ŏn ka: *[KWUN-YWONG]_i nyey_ wa talosya, . . . [CHI-CIN]_i nom_kwa talosya* 軍容이 네와 다르셔야, . . . 部隊이 놀과 다르샤 ‘the military formation was different from before, . . . the battle array was different from others’ (stanza 51).

5.5.5 Nominalizer *-ti*

As was mentioned in the discussion of conjunctive endings, the ending *-ti* (ancestral to modern standard *-ci*) was used with a following predicate negated by *ani* ‘not’ or *mwot* ‘cannot.’ However, *-ti* was also used for nominalized complements governed by the adjective *elyeW*- ‘be difficult’ (which, of course, had negative semantic content). Example: *ati elyeWun PEP* 아디 어려운 법 ‘a law difficult to understand’ (1447 Sŏkpo sangjŏl 13:40b). In addition, it was occasionally used with *sul_ho* ‘hate to do’ and *pwuskuli*- ‘be ashamed to do.’ Example: *na-kati sul_ho.ya* 나가디 슬호야 ‘hate to go out’ (1481 Samgang haengsil to Yŏllŏ-to:16a). There is also an occasional citation in the sixteenth-century literature in which *-ti* is used with *tywoh*- ‘be good’: *kocang pwot tywohoni* 닭보더 도호니 ‘they are a great joy to see’ (c. 1517 Pŏnyŏk Pak T’ongsa 1:5b). In all these constructions *-ti*
was later replaced by the nominalizer -ki; the change with elyeW- is attested in texts dating from the early seventeenth century.

5.5.6 Postmodifiers

Certain nominal structures occurred exclusively after modifiers and served purely syntactic functions in the Middle Korean grammar. Among the postmodifiers peculiar to Middle Korean were ssi, ssol, and ssoy, which were also written si, sol, and soy. (See the discussion of reinforcement and the ss spelling, above.) These forms were used after the prospective modifier -(o/u)lq, and consisted of the postmodifier noun so (ぞ) ‘the fact/one that . . .’ plus a case particle.

ssi The form ssi was principally used in definitions. Examples: elkwul kocol ssi THYEY_‘Gwo 엉굴 극 줄 측 체오 ‘having a form is THYEY [= body]’ (1447 Sŏkpo sangjŏl 13:41a); CIN on taol ssi_la, . . . CAN on kilil ssi_la 竄은 다올 쌍라, . . . 讚은 기렬 쌍라 ‘CIN means to exhaust, . . . CAN means to praise’ (1447 Sŏkpo sangjŏl Introduction: 2).

ssol Among various other uses, the form ssol was sometimes used idiomatically with the verb nilo- ‘tell, inform, report, explain, teach.’ Example: PEP ul epsiGwumye no.m_ol epsiGwul ssol nilGwotoy CUNG-SSYANG-MAN ila 法을 업시으며 눌물 업시울 쓸 널오디 增上慢이라 ‘to scorn the law and to scorn others, one calls that arrogance’ (1463 Pŏphwa kyŏngŏnhae 1:17b).

ssoy Combined with the prospective modifier -(o/u)lq, ssoy served to indicate causation. Example: polo.m_ay ani mwuyl ssoy 뿰록메 아니 멀 쌍 끌 ‘because it does not move in the wind’ (1447 Yongbi ŏch’ŏn ka stanza 2).

A similar group of postmodifiers were used after either -(o/u)n or -(o/u)lq. This group included ti, tol, tolwo, and toy. Like ssi, ssol, and ssoy, these forms were also morphemically composed of a postmodifier noun plus a case particle, but in this case the base noun was to (ぞ) ‘the fact/one that . . .’ Notice that the vowel of the noun, /o/, elided before the nominative particle i.

ti Cognate with conjunctive ending -ti (which attached directly to stems), postmodifier ti functioned syntactically as a noun. Note that conjunctive ending -ti paired with a negative auxiliary, ani or mwot, while postmodifier ti occurred with the negative copula. Examples: hoyni sise towoyywon ti animye, kemuni multulye moyngkolwon ti anila 험니 시져 독외운 다 아니며 거므니 씁드려 망그론 다 아니라 ‘something white is not something that becomes [that way] by washing, and something black is not something made by dyeing’ (1461 Nŭngŏm kyŏngŏnhae 10:9a); alwoq ti animye 아름 다 아니며 ‘it is not something one knows’ (1464 Amit’a kyŏngŏnhae 14b).
tolt This construction was cognate with the concessive ending -(o/u)tol
‘though, in spite of,’ but in this form it was overtly a noun in the accusative
case. Example: hyen na.i_isin tol alli 현 나라신 들알리 ‘can one know how
many days it was’ (1447 Yongbi ḏch’on ka stanza 112).

tolwo The case marker for the noun was the instrumental. Examples: esten
tolwo 엇던 드로 ‘for what reason’ (1464 Sŏnjong yŏn̄ga chip ḏnhae 1:111),
kulen tolo  그런 드로 ‘for that reason’ (1463 ḏphwa kyŏng ḏnhae 4;32a).

toy This postmodifier incorporated the locative. Example:
this postmodifier incorporated the locative. Example:
meli kasku
twu nas twon iGwo 머리 갓 근 두낫 돈이오 ‘in getting your hair cut it’s
two coins, and . . .' (c. 1517 Pŏnyŏk Pak T’ongsa 1:52a)

5.5.7 Nominalization

The overwhelming majority of nominalizations in the fifteenth century were
made with the substantive ending -(o/u)m. The ending -ki, the most widely used
nominalizer in the language today, was as yet rare in the Middle Korean period.

However, the Middle Korean corpus contains traces of other, perhaps older,
patterns of nominalization. As has already been mentioned in the discussion of
final endings, the modifier endings -(o/u)n and -(o/u)lq were occasionally used
as nominalizers. The noun elGwun 얼운 ‘adult’ was a frozen form derived with
-(wo/wu)n from a verb elu- meaning ‘to marry.’ In the 1447 Yongbi ḏch’on ka
(10:13a), a personal name written in Chinese characters as 金小斤 was glossed
in Hangul as 저근 (cyekun). (In the Chinese transcription, 小 was a semantic
gloss for the native verb cyek- ‘little,’ and斤 was to be read for its sound value,
kun.) Thus, the man’s name was Kim Cyekun ‘Kim Little One’; his given name
was a noun, a deverbal, derived from cyek- ‘little’ plus the ending -(o/u)n.

Most nominalizations with -(o/u)n and -(o/u)lq were found in relatively
well-defined morphological environments. For one thing, the prospective
modifier -(o/u)lq was used before negatives, especially the verb eps- ‘not be,
not have, not exist’ and the negative copula ani- ‘is not.’ Examples:
taols epsuni 달옵 업스니 ‘because there is no end’ (1463 ḏphwa kyŏng
ŏnhae, 2;75b); sulphuls epsi 슬포 업시 ‘without sorrow’ (1481 Tusi ḏnhae
25:53a); anils animye 아닐 아니며 ‘it is not that it wasn’t’ (1496 Yukcho
poppodan kyŏng ḏnhae 1:47); twulwu ani_hols ani hosina 두루 아니 хоз
아니 хоз시나 ‘[he] will not do it universally’ (1482 Kŭmgang kyŏng sango
hae 5:10). Uses of -(o/u)n as nominalizer can be found with inflectional
endings and before postpositions: Examples: [NGWU] [ZYWUYEY] [CILQ-
SSYENG]_ho.n_olwo [PANG-KWUYK]_i hay mwotona, . . . [QWUY-HWA]

28 Note that in all such cases the final consonant of -(o/u)lq was transcribed as s (ㅅ) instead
of q (ᅀ).
Nominal predicates

A salient characteristic of Middle Korean was the frequent occurrence of nominal predicates without a copula. In such sentences, nouns and nominalized predicates were followed directly by morphemes that normally functioned as inflectional endings. One particularly striking example of this kind of construction can be found in the formation of questions. Examples: ‘what kind of light is it?’ (1459 Wŏrin sŏkpo 10.7b); ‘is this reward or punishment?’ (1472 Mongsan Hwasang pŏbŏ yangnak ônhae 53b); ‘what kind of appearance does Zhaozhou have?’ (1472 Mongsan Hwasang pŏbŏ yangnak ônhae 55b). In questions such as these, the interrogative endings were attached directly as postpositions to the nouns. And, though not nearly so common, nominalized predicates occasionally attached directly to the declarative ending -ta. Examples: ‘does (this young man) weep so much, . . . what song do (you) sing’ (1459 Wŏrin sŏkpo 8:101). In these two examples, the constructions wunon ‘weeping’ and pulunon ‘singing’ were nominalizations. Of course, by the Middle Korean period most occurrences of -ta were with verbals and adjectivals, but, as we have seen, the traces of earlier nominal constructions could also still be found.

Chinese influences

The Middle Korean textual record shows Classical Chinese influence on Korean grammar. For example, the words tamos ‘in addition,’ pse ‘using,’ hoyye (or hoyyekwom) ‘letting, making, forcing,’ and mis ‘reaching’ were used as loan translations of the Classical Chinese grammatical elements 與 ‘with,’ 以 ‘by, with,’ 使 ‘causing,’ and 及 ‘and, or.’ Syntactic constructions
5.5.10 Stylistic linking

Perhaps the most striking characteristic of Middle Korean writings was the almost complete absence of simple sentences. The style seen in the texts of that period was marked by a convoluted syntactic linking of a level of complexity not seen anywhere in Korean writing today. The impression Middle Korean texts give the modern reader is that the events and thoughts contained in each paragraph were generally linked into a single, unbroken string.

5.6 Vocabulary

5.6.1 Replacement and innovation

By the fifteenth century the Korean lexicon already contained a rich stock of words derived from Chinese sources. Many of these words were of course terms for cultural objects and concepts that had been imported from China. But, from very early on, there had also been a tendency to substitute ordinary Chinese nouns and verbs for native vocabulary, and over time many of the original Korean words had fallen into disuse or been forgotten. In turn, the Sinitic origins of some of the imports were also forgotten, and in Middle Korean texts such words were written like native words, in Hangul, instead of Chinese characters. Examples: *syangnyey* ‘usual practice’ (written 常例 instead of 常例), *chapan* ‘food, side dishes’ (臘年 for 茶飯), *wuytwu* ‘the head, boss’ (위두, 為頭), *yang* ‘appearance’ (양, 樣), *hoyngebeck* ‘achievements’ (行徳, 行蹟), *kwuy(s.kes)* ‘ghost, spirit’ (魘鬼). Through constant usage over the years, some meanings had also drifted. The word *kannan* (艱難) ‘hardships,’ for example, changed in both sound and meaning to *kanan* ‘poverty.’ The word *pwunpyel* ‘division, distinction’ (分別), also written in Hangul (분별), came to mean ‘worry.’ There were often differences between
popular and literary forms. Sino-Korean *cywungsoyng* (衆生) retained the meaning of ‘all living beings’ in certain literary contexts, but its colloquial meaning was ‘animal, beast.’ Moreover, toward the end of the fifteenth century, the pronunciation of the word changed to *cumsoyng*. Examples: *mwotin cywungsoyng* 모딘 중생 ‘the cruel beast’ (1447 Yongbi øch’ón ka 30); *won cumsoyng* 온 즘성 ‘a hundred beasts’ (1482 Nammyöng-chip önhae 1:47b).

It is also important to remember that the vocabulary of Korean during this period was deeply influenced by the religion and philosophy of the time. Beginning at least in the Three Kingdoms period and extending through the Koryǒ, Buddhism had exerted a powerful influence on the vocabulary of the Korean language, for the most part through Classical Chinese forms. The word *cywungsoyng* ‘all living beings’ cited above was just one example. In the late Koryǒ, however, neo-Confucianism replaced Buddhism and older forms of Confucianism as the spiritual doctrine favored by the literati, and in the Chosŏn period the new philosophy grew rapidly in importance. Finally, toward the end of the Middle Korean period, Buddhism faded in importance as neo-Confucianism became the dominant intellectual influence on the peninsula. This tendency became even more pronounced in the centuries that followed in the Early Modern period.

Glimpses of this process of lexical displacement can be seen in the Late Middle Korean textual record. The native word *sywulwup* (슈룹) ‘umbrella,’ for example, is found in only one Hangul text, the *Hummin chŏngŭm haerye* of 1446. The same word had also been recorded in earlier Chinese texts, the twelfth-century *Jilín lèishi* (as 聚笠), and the early fifteenth-century *Chàoxiān-guān yìyū* (as 速路). But the 1527 *Hunmong chahoe* gives the word for ‘umbrella’ as Sino-Korean *wusan* (우산 雨傘). The *Hunmong chahoe* itself recorded the words for ‘hundred’ and ‘thousand’ as native *won* 온 and *cumun* 즘문. But these words, too, had disappeared by the end of the sixteenth century, judging by the entries in the 1576 dictionary *Sinjung yuhap*: 千일 천천 ([the character] 千 [means] “one thousand” [and is read] *chyen*; 百일백벅 (ilpoyk poyk) “[the character] 百 [means] “one hundred” [and is read] *poyk*.”

There are discernible lexical differences between fifteenth-century texts and sixteenth-century texts, as in the latter century, vocabulary began to take on a somewhat more modern look. The native function word *hotaka* (핫다가) ‘if, in case’ was the usual term for this meaning in the fifteenth century, but it disappeared almost completely in the sixteenth, replaced in general usage by the Sinitic expression *manil_ey* (萬一 plus the locative particle). Fifteenth-century *pantoki* (반도기) ‘necessarily’ became sixteenth-century *pantosi~pantusi*. (The new form *pantosi* (반도시) had already made its appearance in 1481 *Tusi önhae*.) The form of the common verb *moyngkol*- (명ولاد-) ‘make’ was replaced by *moyntol~montol*- (민 들~, 문 들-).
Numerous lexical changes also took place during the sixteenth century itself. Some replacements of this kind can be readily documented by comparing the 1518 translation of the “Lesser Learning,” the Pŏnyŏk sohak, with the reedited, 1588 translation of the same text, the Sohak ŏnhae. For example, the Pŏnyŏk sohak contains the words and expressions homa 흔마 ‘already,’ wuthuy 우ثير ‘skirt,’ patolap- 바도랍- ‘be dangerous,’ pizwum 비춤 ‘make-up,’ and kwakolon noskwos 과علن 뇌곳 ‘unexpected facial expression.’ But all of these lexical items were corrected in the Sohak ŏnhae to the forms imuy 이이, chima 치마, [WUY-SI]_ho- وقتpossibly 단장, and kupke_hon nospis 급거훈 뇌빗. Another word used in the Pŏnyŏk sohak, and which is also found in fifteenth-century texts, was nyele_wase 르케 ‘go and’ come back.’ However, this compound verb cannot be found anywhere in the Sohak ŏnhae. Examples: [HWON-IN] mwotkoci_yey nyele_wase 婚姻 몬마지에 너 려와서 ‘come back from the wedding party’ (1518 Pŏnyŏk sohak 10:17); [HWON-IN] mwotkoci_lwo_puthe twola_wa 婚姻 몬마지로브터 도라와 ‘come back from the wedding party’ (1588 Sohak ŏnhae 6:115).

The Sohak ŏnhae shows other signs of lexical innovation as well. It is the earliest text, for example, in which the following usages of the Sino-Korean element thye (體) ‘body, style, substance, appearance’ can be found: icye hwongmun syeyki thye yes il ila 이제 홍문 세기 테잎 일이라 ‘nowadays it is something like erecting a red gate’ (6:61); kempak_hon thye yes kokenul 겨 박훈 테 흔거늘 ‘because one does as if one were thrifty and artless’ (6:128); ancum_ul khi thye lwo malmye 안즘을 키테로 말며 ‘one should not sit in the form of a winnow’ (3:9). The form thye_lwo in the last example (combining thye with the instrumental particle) later underwent the change thye_lwo > thye_lwo > chye_lwo on its way to becoming Contemporary Korean chelem ‘like, as, as if.’

Such words as these were not like the traditional Sino-Korean readings of Chinese characters. Since the words were apparently borrowed directly from spoken Chinese, they must have reflected something of the pronunciations and usages then current in northern China.

5.6.2 Phonetic symbolism

Vowel oppositions were used to make subtle connotational differences in a word’s meaning. These oppositions were largely ones associated with vowel harmony, with contrasts formed by the yin–yang ‘female–male’ pairs. For example, both choykchoy_ho- 찐ثقة - and chuykchuyk_ho- 천ثقة - meant ‘packed, dense, tight and close,’ but choykchoy_ho- seems to have symbolized smaller, tighter configurations than chuykchuyk_ho-. The adjective pholo- 쫍 - ‘blue, green’ referred to a brighter, lighter color than phulu-프르- ‘blue, green.’ Other examples: pwotolaW- 보토라- ‘small and delicately soft,’ pwutuleW- 부터드- ‘deep cushiony soft’; twolylet_ho- 도��렛- ‘small and round,’ twulylet_ho- 두��렛- ‘large, looping round’; atok_ho- 아독- ‘dark and dim,’ etuk_ho- 어득- ‘dark and gloomy.’

These examples of phonetic symbolism were of course much like those still found in Contemporary Korean today. But there were also contrasts that have since disappeared or changed significantly. Examples: hyak- 향- ‘small, tiny,’ hyek- 혥- ‘small, few, sparse,’ hywok- 꼡- ‘fine, tiny, minute’; pes- 벽- ‘remove (clothing), avoid,’ pas-밧- ‘remove (clothing); twolohhye- 도�� ['./turn, turn around,’ twuluhhye- 두��('./turn, turn over’; nam- 남- ‘exceed, remain,’ nem- 넘- ‘exceed, cross over.’ The meanings of such contrasting forms often drifted apart, creating lexical items linked only by etymology. For example, among the above word pairs, both nam- and nem- carried the basic meaning of ‘exceed,’ but already in the fifteenth century nam- was sometimes used in the sense of ‘remain,’ and nem- in the sense of ‘cross over.’ The two forms had already begun to separate semantically. During the Middle Korean period, the word pair sal 살 and sel 셜 were both used as classifiers for counting age, even though sel had the additional meaning of ‘new year.’ Later, during the Early Modern period, the two words separated, sal becoming the exclusive counter for age, and sel to mean only ‘new year.’ Many other word pairs were already distinct lexical items in the fifteenth century. Examples: kach- 깍- ‘leather, hide, skin,’ kech 깗- ‘surface, exterior’; hal- 할- ‘slander,’ hel- 헬- ‘tear down, destroy’; pulk- 불- ‘red,’ polk- 풀- ‘bright’; nulk- 물- ‘(a person) grows old, is old,’ nolk- 물- ‘(an object, clothing) grows old, wears out.’

In a similar way, consonants were also used in phonetic symbolism. Where reinforcement is used as a semantic intensifier in Korean today, we find orthographic s-clusters in Middle Korean. For example, stwutuli- 두드리- ‘beat, hit, thrash’ represented more intense pounding than twuliti- 두드리-
‘id.’ Examples: TWAN-LYEN on swoy twutulye nikil ssi ‘la 堆煉은 쑤 두드려 니길씨라 ‘tempering is hammering and forging iron’ (1461 Nùngông kyŏng ônhae 7:18a); swutulye pos.a 루드려 맞아 ‘shatter by beating’ (1466 Kugûppang ônhae 1:42). A more intensive form of kuzu- 그스- ‘pull, drag’ was skuzu- 스스-; e.g., skuzul ssi la 스슬 쓰라 ‘it is dragging’ (1463 Pŏphwa kyŏng ônhae 7:91). Later, the intensive form skuzu- completely displaced kuzu-, which then disappeared from use.

5.6.3 Special polite vocabulary

The honorific system of Middle Korean included important lexical distinctions. For example, the existential verb isi- was paired with the honorific existential kyesi- 거시-, as was mek- ‘eat’ with honorific cwasi- 좌시- (which became casi-좌시- in the sixteenth century). These distinctions, albeit in slightly different forms, have been preserved down to the present day. But a few polite words in Middle Korean were different from those found in the language today. In modern standard Korean, the honorific equivalent of ca- ‘sleep’ is cwumusi-, but that word did not exist in the fifteenth century. Instead, the verb ca- itself was made polite by adding the honorific suffix -si-. Example: com casiî_cey 쪽 자심체 ‘when you sleep’ (1449 Wŏrin chĭng chi kok stanza 118). The polite equivalent of pap ‘rice’ today is cinci, and there is also the obsolescent word mey ‘rice offered to the gods or departed spirits; rice [in court usage].’ Neither of these words was attested in the fifteenth century. The earliest citations for cinci date from the latter part of the sixteenth century; e.g., [WANG-KYEY] cinci lul twolwo hosin hwu_ey_za 王季 진지를 도로 후에자 ‘after Wang Ji had eaten rice again’ (1588 Sohak ônhae 4:12). The Middle Korean reflex for mey was mwoy 봇, which is only found in late sixteenth-century texts; e.g., [MWUN-WANG] i twu_pen mwoy casimye 文王이 두번 봇 자시며 ‘Wen Wang partook of rice twice, and . . .’ (1588 Sohak ônhae 4:12).

To indicate polite style, there were a number of special polite verbs. Alongside plain nilu- ‘tell, relate, report,’ there were the humble verbs solW-솔- ‘report (to an honored person)’ and yetcoW- 연콜- ‘tell (a superior).’ The polite equivalent of plain pwo- ‘see’ was the passive pwoy- 봇 ‘(humbly) see,’ or, alternatively, the passive combined with the deferential suffix (-zoW-) as pwoyzoW- 봇 솜-. The humble verb used alongside plain cwu- ‘give’ was tuli- 드리- (as it still is today); the humble equivalent of pat- ‘receive’ was the plain verb combined with the deferential suffix as patcoW- 받콜-. There was also plain mwoy- ‘go with’ and humble mwoyzoW- 봇 솜- ‘accompany.’

The noun malssom 말씀 ‘speech, language’ (which in the sixteenth century had the form malswom 말씀) does not appear to have functioned as the humble or polite form of mal ‘speech, language.’ That is a distinction that surfaced in later centuries. Examples: nalas malssom.ı 나랏 말씀이 ‘the
country’s language’ (Hunmin chŏngŭm ŏnhae 1a); syangnyeys malswo.m_ay

Pronoun usage in Middle Korean was different from that of today. For one thing, there was then no equivalent of the polite first-person pronoun ce. One referred to oneself in the presence of superiors with the plain pronoun na ‘I, me.’ There was, however, a polite third-person pronoun, which was cokya 조가, a word probably derived from Chinese 自家 ‘oneself’ (pronounced zijiā in modern Mandarin), since it was principally used as a reflexive with that meaning.
Early Modern Korean

What is referred to here as “Early Modern Korean” extended from the beginning of the seventeenth century down to the end of the nineteenth century. It is the stage of the language represented in the texts written after the end of the Middle Korean period but before writing practices were updated and rationalized to reflect contemporary speech around the turn of the twentieth century. Early Modern Korean was, in that sense, a transition stage between Middle Korean and Contemporary Korean.

The Early Modern period began after the Japanese invasion of Korea in 1592. That invasion, followed by the seven, horrific years of the Imjin Wars, followed in turn by more years of widespread famine and disease, exacted a terrible price on Korean society. No books were published during that time, and when publication did resume around fifteen years later, Korean writing had changed. Gone were the diacritic dots used to mark tones; the triangle symbol used to write 자 had disappeared; consonant clusters and other kinds of spellings were confused and inconsistent; grammatical patterns and styles were noticeably altered. The differences in the textual records were so great, in fact, it was long believed that the wars with the Japanese had caused people to change the way they talked. Even today one sometimes hears it said that Hideyoshi’s invasions caused Koreans to forget how to pronounce 자’s or to distinguish tones.

That popular mythology notwithstanding, the abruptness of the break with Middle Korean is an illusion. The changes that came to light after the Imjin Wars had been well under way before the end of the sixteenth century, but they had remained largely masked by the writing system. During the Middle Korean period, writers and printers had adhered so closely to accepted orthographic standards, the texts they produced contain little evidence of the changes that were taking place in people’s speech. But once that orthographic tradition had been interrupted, writing was bound to be guided more by pronunciation and guesswork than memorized spellings. Without question, the wars and the years of social chaos that followed must have had an effect on the language that people spoke; but it affected far more the way they wrote.
What people wrote about was also different. In the Middle Korean period, publishing had been largely controlled and supervised by a royal and aristocratic elite, principally for pedagogical purposes or Buddhist proselytization. Now, after the Japanese and Manchu invasions had run their course, Korean society and culture became infused with a new spirit. On the one hand, what was written about was affected not only by the war experience, but also by new developments in commerce, handicrafts, and agriculture. The beginning of contact with Western civilization, at first principally through Ming China, bore heavily on these developments. It was a time of new technology and new literature. By the eighteenth century, the spirit of Sirhak, or “Practical Learning,” and popular interest in poetry and fiction gave rise to new literary forms and an outpouring of vernacular writing in Hangul. In general, the literary works of this period were perhaps still a little too dependent upon Sinitic vocabulary, but they also represented bold attempts to bring into Korean writing the ordinary words of everyday life.

Around the end of the sixteenth century, Korea had begun to be affected ever so slightly by Western culture. At first, this influence had made itself felt through religion, when Catholicism became known on the Korean peninsula, bringing with it a smattering of new knowledge about astronomy, geography, and other natural sciences. Then, in the Early Modern period, Koreans residing in China, some of whom converted to Catholicism, brought treatises on a variety of subjects with them back home, and it was generally in this indirect way that Koreans had contact with the West until the latter part of the nineteenth century. This circuitous route was not a very efficient method for importing new ideas and technology, and it led to a lot of guesswork and experimentation on Korean soil. Still, attenuated though it was, contact with the West began to influence Koreans’ awareness of the world around them and their language. It was a prelude to the frenetic Westernization of the present day.

6.1 Sources

The best source materials for Early Modern Korean are first editions of works written during that period. Reissues of earlier, Middle Korean texts are less useful, because they provide reliable information about Early Modern Korean only in the places where changes were made in the original text. But those works, too, have their value. For example, linguistically useful emendations can be found in the various Early Modern editions of the Yongbi ḍech’on ka. Originally published during the Middle Korean period in 1447, the Yongbi text was reissued in new editions in 1612, 1659, and 1765. In the 1612 edition, the original, Middle Korean forms iptesini 입더시니 ‘was confused, and
so . . .’ (stanza 19), nyethwosikwo 너토시고 ‘was made shallow, and . . .’ (stanza 20), cywungsoyng 충성 ‘beast’ (stanza 30), nwun_kot tiningita 눈곰 디니이다 ‘it fell like snow’ (stanza 50), and hyekun 희근 ‘small’ (stanza 82) were preserved intact, but in the 1659 edition, all of these forms were corrected to eptesini 업더니 ‘was not there, and so . . .’, yethwosikwo 여토시고, cumsoyng 침성, nwun kotteningita 눈 곰디니이다 (‘it was like snow’), and cyekun 저근. Then, in the 1765 edition, tetisina 터디시나 ‘he threw it away, but . . .’ (stanza 27) was altered to titisina 디디시나 (‘he stepped on, but . . .’). Emendations like these reflect changes that had taken place in the language; they were evidently made either because the editors did not understand the original forms, or because they thought they were mistakes. The 1613 redaction of the 1527 Hunmong chahoe has an especially large number of such changes.

6.1.1 Seventeenth century

6.1.1.1 Sonjo (r. 1567–1608)
The reign of Sonjo, the fourteenth king of the Chosŏn dynasty, spanned the final years of the Middle Korean period, the wars with the Japanese, and the beginning of the Early Modern period. In the last year of his reign, 1608, the very first two Early Modern Korean works were published. These were both medical treatises compiled by Hŏ Chun at royal behest, the Ŭnhae tuch’ang chibyo 解痘集要, which was a Korean translation and redaction of Chinese prescriptions for smallpox, and the Ŭnhae t’aesan chibyo 解胎産集要, a similar work on nursing infants and childbirth. Copies of both are preserved in the Kyujanggak Library of Seoul National University.

6.1.1.2 Kwanghaegun (r. 1608–23)
Hŏ Chun was also commissioned by Sonjo to produce an encyclopedia of Chinese herbal medicines, the Tongu pogam (‘A Handbook of Eastern Medicine’ 東醫寶鑑), but that work was not completed until 1610, two years after Sonjo’s death. One of the finest medical compilations ever produced in Korea, the Tongu pogam was written in Classical Chinese, but the names of the plants and herbs were transcribed in Hangul. A copy of the text is preserved in the Kyujanggak Library at Seoul National University.

Kwanghaegun, the monarch who succeeded Sonjo, made the reprinting of classical texts that had become hard to obtain after the Imjin Wars one of his principal domestic projects. Among the works he had reissued was the Akhak kwebŏm 樂學軌範 (1610), a compendium of classical musicology that had been originally published in 1493, but which was based on studies made during Sejong’s reign; other reissued texts included the Yongbi ḍŏch’ŏn ka
(1612) and the *Hunmong chahoe* (1613). Original works published during his reign include the *Yŏnbyŏng chinam* (‘A Guide to the Training of Troops’ 練兵指南) (one volume, 1612) and the *Tongguk sinsok samgang haengsil to* 東國新績三綱行實圖 (eighteen volumes, 1617), a compilation commissioned by Kwanghaegun to document the virtuous deeds of Korean martyrs during the wars with the Japanese, as well as virtuous behavior by Korean historical figures. (The first of these two publications can be found in the Korean National Library; the second in the Kyujanggak Library.) Along with the medical treatises mentioned above, these works are the most important linguistic materials preserved from the early seventeenth century.

6.1.1.3 Injo (r. 1623–49)

Works completed during the reign of Injo include the *Karye ônhae* 家禮諺解 (1632), a Korean explication of the Chinese neo-Confucian text, *Zhuzi jiali* 朱子家禮, as well as the *Hwap’o-sik ônhae* (‘A Vernacular Interpretation of Cannonry Methods’ 火砲式諺解) (1635). First editions of these works are no longer extant, and the surviving copies (found in the Karam Library) are later reprints. A second edition of the *Tusi ônhae* (the *Chunggan Tusi ônhae*) was

Figure 10. The *Tongguk sinsok samgang haengsil to*
This early seventeenth-century didactic work contains illustrated stories of martyrs who had behaved virtuously during the wars with the Japanese, as well as other stories of great virtue from Korean history.
also published during Injo’s reign, in 1632. This edition is of particular interest because, according to the preface written by Chang Yu, it was put together in the southeast, in what is now Kyongsang, and was therefore influenced by the dialect spoken there. Many copies of this text survive today. The *Kwonnnyom yorok* 勸念要録, published in 1637, was a collection of Buddhist fables, including “The Story of the Return of Master Wang’s Soul.” According to an inscription in this text, it was “printed in the Hwaom Temple in the Kurye region,” and thus also contains elements of Kyongsang dialect. (A copy is preserved in the Ilsa Library.)

6.1.1.4 Hyojong (r. 1649–59)
Works published during the reign of Hyojong include the medical treatise *Pyogon sinbang* 辟瘟新方 (1653) and a neo-Confucian book of manners, the *Kyongmin p’yon onhane* 警民編諺解 (1656). There also appeared the first in a series of books with the title *Orok hae* 語録解. This series, the compilation of which is believed to have been begun by disciples of T’oegye Yi Hwang (1501–70), consisted of collections and exegeses of Chinese colloquialisms and slang expressions. One volume can be dated by a 1657 postface written by Chŏng Yang; another, the redaction of which was supervised by Nam Isŏng, was published with a postface by Song Chungil in 1669, during the reign of Hyojong’s successor, Hyŏnjong (r. 1659–74).

6.1.1.5 Sukchong (r. 1674–1720)
A variety of translation guides were published during the reign of Sukchong, many of which are still extant. The *Nogoltae onhane* 老乞大諺解 (two volumes, 1670), *Pak Tongsa onhane* 朴通事諺解 (three volumes, 1677), and *Ch’ophae sinŏ* 捷解新語 (ten volumes, 1676) were popular language textbooks used in the Office of Interpreters. Note, in particular, that the *Nogoltae onhane* and the *Pak Tongsa onhane* were new works. Although influenced by Ch’oe Sejin’s *Ponyŏk Nogoltae* and *Ponyŏk Pak Tongsa* (for example, they contain occurrences here and there of the obsolete letter for /z/, ᅀ), they were not later editions of those earlier, sixteenth-century works. The *Ch’ophae sinŏ* was a textbook of colloquial Japanese. The author, Kang Usŏng, had been taken prisoner by the Japanese during the Imjin Wars and had subsequently spent ten years in Japan. After returning to Korea, Kang drafted the manuscript for this textbook around 1618, but over half a century passed before it was finally published. In any event, the *Ch’ophae sinŏ* is a source of unique information about spoken Japanese as well as about Korean. The *Yogoyaha* 譯語類解 (1690), a collection of Chinese words with Korean glosses, contains information about the makeup of the Korean lexicon in the
late seventeenth century. (A copy is preserved in the Kyujanggak Library.) The *Sinjŏn chach’ŏbang ḏŏnhae* 新傳煮硝方詮解, which is a Korean exegesis of a Chinese manual for making gunpowder, was published in 1698. A copy of the first edition of this text is apparently not extant, but a reprint from the late eighteenth century is preserved in the Kyujanggak Library. There is no way to determine how or how much the later edition differs from the original.
however. The *Waeö yuhae* 委語類解 was another Japanese textbook. This text contains no clear indication of its publication date or authorship, but it is believed to have been written by a scholar named Hong Sunmyo˘ng. Since it appears to have been compiled somewhat later than the *Yögö yuhae*, it can be placed in time around the beginning of the eighteenth century.

6.1.2 Eighteenth century

Most of the linguistic materials published during the reigns of Yöngjo (r. 1724–76) and Chöngjo (r. 1776–1800) can be divided into two genres, Korean exegeses of Chinese writings (ŏnhae) and language textbooks. In addition to these two types of publications, however, important linguistic information can also be found in the texts of royal edicts.

6.1.2.1 Ŭnhae

Many of the vernacular versions of Chinese texts were reissues or revised editions of earlier works. These included the *Samgang haengsil to* (1729), the *Iryun haengsil to* (1729), the *Kyöngmin p’ён ţnhae* (1728), the Ŭje naehun (御製內訓, i.e., Queen Mother Insu Taebi’s *Naehun*) (1736), and the *Oryun haengsil to* 五倫行實圖 (1797), a combined edition of the *Iryun haengsil to* and the *Samgang haengsil to*. However, the ţnhae of this period also consisted of original writings, including the Ŭje sanghun ţnhae 御製常訓諺解 (one volume, 1745), the *Ch’ónû sogam ţnhae* 闡義昭鑑諺解 (five volumes, 1755), the *Sipku saryak ţnhae* 十九史略諺解 (two volumes, 1772), the *Yömbul pogwôn mun* 念佛普勸文 (one volume, 1776), the *Myöngûirok ţnhae* 明義錄諺解 (three volumes, 1777), the *Sok Myöngûirok ţnhae* 續明義錄諺解 (two volumes, 1778), the *Chahyul chónch’ik* 字恤典則 (one volume, 1783), the *Muyedo pò’ongji ţnhae* 武藝圖譜通志諺解 (one volume, 1790), and the *Chûnsu muwônkon ţnhae* 增修無冤錄諺解 (three volumes, 1792). All of these works can be found today in the Kyujanggak Library. Among them, the *Yömbul pokwôn mun* is especially noteworthy because it was printed in the Haeinsa Temple in Kyŏngsang Province and thus reflects elements of the dialect spoken there. The *Myöngûirok ţnhae* is of special interest as well, because it bears features of the language spoken in the royal palace.

6.1.2.2 Language textbooks

For the study of Chinese, the Interpreters’ School compiled the *Yögö yuhae po* 譯語類解補 (1775) as a supplement to the 1690 *Yögö yuhae*. For Japanese, there was the *Kaesu Ch’ôphae sinô* 改修捷解新語 (1781), a reworking of Kang Usông’s 1748 textbook.
In the eighteenth century, the School devoted special attention to the training of interpreters in Manchu and Mongolian, and it published a large number of works for these languages that were both extensive and of a consistently high quality. Some of these textbooks were revised versions of earlier works, some were new compilations; a great deal of energy was devoted to both. The Manchu texts P’alsea 八歲兒 (one volume), Soaron 小兒論 (one volume), Samyŏk ch’ŏnghae 三譯總解 (ten volumes), and Ch’ŏngŏ Nogŏltae 清語老乞大 (eight volumes) were all first published in 1704. Then, the revised edition of the last of these, Ch’ŏngŏ Nogŏltae sinsŏk 淸語老乞大新釋, was printed in 1765; the Chunggan Samyŏk ch’ŏnghae 重刊三譯總解 appeared in 1774; and later that same year, 1774, the texts Soaron and P’alsea were also reissued. The only surviving copies of any of these Manchu texts are the second editions. (All are found in the British Museum; the Ch’ŏngŏ Nogŏltae is missing in the Kyujanggak collection.)

The Tongmun yuhae 同文類解, a Manchu glossary, was published in 1748. Then, around the last years of Yŏngjo or the early years of Chŏngjo, the last and greatest of the scholarly works on Manchu, the Hanch’ŏng mun’gam 漢淸文鑑 (fifteen volumes), appeared. (Copies can be found today in the École des langues orientales in Paris and in the collection of Tokyo University.)

This great dictionary of Chinese, Manchu, and Korean was based upon the Qing dynasty Chinese work, the Zêngdìng Qīngwén jiàn 增訂淸文鑑.

Mongolian textbooks went through many revisions and printings. The Mongŏ Nogŏltae 蒙語老乞大 (eight volumes), first published in 1741, was revised and expanded in new editions in 1766 and 1790. The Ch’ôphae Mongŏ 漢解蒙語 (four volumes) was published in 1737 and republished in 1790. The Mongŏ yuhae 蒙語類解 (two volumes) appeared in two editions, in 1768 and 1790, and the Mongŏ yuhae pop’yŏn 蒙語類解補編 was appended to the second edition as an attachment. For all of these works, the only editions still extant are the last ones from 1790. (Copies are preserved in the Kyujanggak Library and elsewhere.)

In addition to these textbooks, several manuscript glossaries have survived. The Pangŏn chipsŏk 方言集釋, which was compiled by Hong Myŏngbok and others in 1778, is a dictionary of five languages: Korean, Chinese, Manchu, Mongolian, and Japanese. (It is preserved in the Seoul National University collection.) The Samhak yŏgŏ 三學譯語, which is contained in the Kogûm sŏngnim 古今釋林 compiled by Yi Úibong in 1789, is a glossary of Japanese, Manchu, Mongolian, and Korean. It also is preserved in handwritten form (and is found in the Seoul National University collection). And as for Japanese, various versions of the work Inŏ taebang 隸語大方 are found in the Kyujanggak Library, Japan, and Russia. These Japanese materials appear to date from the late eighteenth (or the early nineteenth) century.
6.1.2.3 Royal edicts

Royal edicts, called yunŭm 纡音 (‘silken sounds’), were written in Hangul to represent the words of the king to the people. More than twenty of these documents have been preserved from the reign of Chŏngjo.

6.1.3 Nineteenth century

Works of note from the nineteenth century include an expanded exegesis of a Ming Chinese military manual, the Singan chŏngbo Samnyak chikhae 新刊増補三略直解 (three volumes, 1805); an illustrated exegesis of a Southern Song Taoist writing, the Taesang kamŭng p’yŏn tosŏl ŏnhae 太上感應篇圖說諺解 (1852); and a volume memorializing Ming soldiers who had died defending Korea during the wars with Japan, the Kwansŏng chegun myŏngsŏng kyŏng ŏnhae 關聖帝君明聖經諺解 (1855). The Mulmyŏng ko 物名攷, which was compiled by Yu Hŭi during the reign of Sunjo (r. 1801–34), is preserved as a handwritten document. Its value for historical linguistics is the large number of terms for animals, plants, and minerals that it contains.

Sources from the latter half of the nineteenth century include the household guide Kyuhap ch’ongsŏ 閨閤叢書 (1869); an exegesis of a Chinese book of manners, the Kyŏngsinnok ŏnhae 敬信錄諺解 (1880); a translation of a Chinese religious text, the Kwahwa chonsin 過化存神 (1880); the Chogun-nyŏng chŏkchi 甕君靈蹟誌 (1881); a royal edict denouncing Catholicism, the Ch’ŏksa yunŭm 斥邪綺音 (1881); and the undated Chinese lexicon, Hwaŏ yuch’o 華語類抄.

6.1.4 Literary works

As was mentioned at the beginning of this chapter, vernacular literature flourished during the Early Modern period, and a great number of literary works from that time have been preserved, including lyric poetry in both the sijo and kasa forms, novels, diaries, travel journals, and personal correspondence. Many of these writings are invaluable sources of linguistic information, particularly in the areas of syntax and discourse. However, this undeniable potential can often be frustratingly difficult to exploit. In an era before copyright protection, popular works were copied and recopied, altered freely and usually without precise dating. Much remains to be done in sorting out these philologically complex issues.

6.1.4.1 Sijo

One of the most important of these literary genres was that of sijo poetry, especially the long-form narrative sijo (辯說時調), which became a vehicle for realistic portrayals of love, life, and suffering. The two major collections
of *sijo* were the *Ch’ŏnggu yŏngŏn* 靑丘永言 (‘Enduring Words from the Green Hills’) compiled by Kim Ch’ŏnt’aek in 1728, and the *Haedong kayo* 海東歌謠 (‘Songs from East of the Sea’) compiled by Kim Sujang in 1763. Most of the poems in these two great anthologies originated in the Early Modern period, but many older compositions, by both known and unknown authors, were included as well.

6.1.4.2 Novels

The type of popular literature most representative of the time was the vernacular novel. Some of the writings in this genre, like *Kuun mong* (‘A Nine Cloud Dream’ 九雲夢, first composed around 1689), had aristocratic styles and themes. But most were stories written by people from lower social classes for a broader popular audience, with themes ranging from social criticism to morality tales and melodramatic love stories. Hŏ Kyun’s *Hong Kiltong chŏn* (‘The Tale of Hong Kiltong’ 洪吉童傳), a story of a heroic fighter for social justice dating from around the second decade of the seventeenth century, is believed to have been the first of these vernacular novels. That popular work was soon followed by a variety of other novels, including *The Tale of Hŭngbu, The Tale of Sim Ch’ŏng, Imjin nok* (‘The War with Japan’ 壬辰錄), *Ongnu mong* (‘Dream of the Jade Chamber’ 玉樓夢), *The Tale of Sukhyang*, and the most famous and popular story of them all, *The Tale of Ch’unhyang*, a story of love transcending social class. A great number of these vernacular novels are preserved in handwritten copies, and, despite the sometimes greater age of the original compositions, most of the texts can be considered nineteenth-century materials. Some of the oldest date from the eighteenth century. Novels published in Seoul and Chŏnju date from the latter half of the nineteenth century; those from Chŏnju are of particular interest because they reflect elements of the local North Chŏlla dialect. *P’ansori*, a style of long narrative sung to an outdoor audience by a single professional performer, flourished in the Chŏlla region, and the narratives made popular there in the nineteenth century by master *p’ansori* artists such as Sin Chaehyo retained intact much of the phraseology and flavor of the Chŏnju novels.

6.1.4.3 Diaries

The literary genre referred to as “diaries” (일기) was not restricted to daily records of events. During the years 1829 to 1832, an official named Yi Hŭich’an was posted to the Hamhŭng region, and his wife wrote a series of Hangul essays about her experiences. These precisely dated essays, collected into what is known as the *Ŭiyu-dang ilgi* (‘The Diary of Úiyu Hall’ 意幽堂日記), contain clear accounts of travel, biographical sketches, and translations. (The diary is in the possession of the Karam Library.) The *Kyech’uk ilgi* (‘A Diary of 1613’ 白丑日記) is a retrospective essay written by an anonymous court
lady about the dramatic events surrounding Kwanghaegun’s murder of his young half-brother in 1613; and the Sansŏng ilgi (‘A Sansŏng Diary’ 山城日記) is an essay of similar origin about the flight of the royal court to the Sansŏng fortress during the Manchu invasion of 1636. Finally, there are the classic

Figure 12. The “Tale of Ch’unhyang,” a story of love transcending social class. The vernacular novel Ch’unhyang chŏn is the most famous and popular story of the Early Modern period.
memoirs together known as *Hanjungnok* ('Records Written in Idleness' 閑中錄). Written by the princess known only as Lady Hong of Hyegyo ˘ng Palace, the memoirs describe the princess’s life and family and, finally, the madness of her husband, Prince Sado, followed by his gruesome and tragic death in 1762 at the hands of his father, King Yŏngjo, who ordered his son into a rice chest, which was then sealed. Though the dating of these three works is somewhat uncertain, they all describe life in the royal palace and are sources of information about the specialized idiom used there.

6.1.4.4 Letters

The *Sinhan ch’öp* (‘A Collection of Royal Letters’ 宸翰帖) is a collection of personal correspondence written in Hangul to Princess Sukhwi by a succession of monarchs and their queens, from Hyojong to Sukjong. (The collection is in the possession of Kim Ilgūn.)

6.1.5 Other sources

A number of Chinese-style riming dictionaries were produced during the Early Modern period, including Pak Sŏngwŏn’s *Hwadong chŏngŭm t’ongsŏk un’go* 華東正音通釋韻考 (1747), Hong Kyehŭi’s *Samun sŏnghwqi 三韻聲彙* (1751), and the *Kujuang chŏnun* 奎章全韻 (1796), a work compiled by royal command during Chŏngjo’s reign. There were also numerous writings on the Chinese character system and the readings of characters that contain valuable information on Korean phonology and vocabulary; such works include Ch’oe Sŏkhŏng’s *Kyŏngse chŏngun* 經世正韻 (1678), Sin Kyŏngjun’s *Hunmin chŏngŭm unhae* 訓民正音韻解 (1750), Hwang Yunsŏk’s *Ijae yugo* 顧齋遺稿 and *Isu sinp’yŏn* 理豁新編 (both compiled during Yŏngjo’s reign), Yu Hŭi’s *Ŏnmunji* 諺文志 (1824), and Chŏng Yagyong’s *Aŏn kakpi* 雅言覺非 (1819). (The *Kyŏngse chŏngun* is found in the Kawai Library of Kyoto University, and the *Hunmin chŏngŭm unhae* 訓民正音韻解 is kept in the Sungsil University library in Seoul.)

The collected writings of Yi Tŏngmu, known as the *Ch’ŏngjang-gwan chŏnsŏ* 靑莊館全書 (1795), and the *Oju yŏnmun changjŏn san’go* 五洲衍文長箋散稿, compiled by Yi Kyugyo˘ng during the reign of Hŏnjong (1827–49), are both encyclopedic works containing interesting observations about the Korean language and writing system.

The Early Modern period also saw the compilation of several reference works on *idu* writing. These include the *Naryŏ idu* 羅麗吏讀 contained in the aforementioned *Kogŭm sŏngnim* (1789), the *Chŏnnyul t’ongbo* 典律通補 compiled by Ku Hyŏnmŭng during the latter part of the eighteenth century, and the *Yusŏ p’ilchi* 儒書必知 of unknown authorship from around the same time.
The symbols and orthography found in texts published after the Imjin Wars were noticeably different from those seen in prewar texts. Korean orthography had been consistent and regular in the fifteenth century, and in the sixteenth century this consistency had broken down, but only gradually. After the Imjin Wars, however, the orthographic tradition was thrown into disarray. By this time, the language had changed so much it was difficult to follow the old orthographic rules, and the chaos of war precipitated a complete breakdown. Moreover, a regularized and unified new orthography was not created to replace the old system, and the chaotic situation continued throughout the seventeenth century. It became even worse in the eighteenth and nineteenth centuries, when the spread of writing through the emergence of popular literature added to the orthographic inconsistency.

After the Imjin Wars ended, three principal differences emerged in the orthography and set of symbols used to write Korean. The first was that tone marks completely disappeared. In the latter half of the sixteenth century, these diacritics had already begun to be neglected in some texts, but by the beginning of the seventeenth century, they ceased to be part of the orthography at all. The second change was that the letter “○” (used to write /ng/) fell into disuse. In the sixteenth century, the letter had already been used only in syllable-final position, where even there it was sometimes replaced by the zero symbol, 〇, without the large tick on top. After the Imjin Wars, in the seventeenth century, the letter 〇 occasionally appeared in some writings, but not in contexts different from that of the zero symbol. The two letters were no longer distinguished. Just as is true in Contemporary Korean today, the phonological value assigned to the letter 〇 depended upon where it was written: in syllable-initial position, it was the zero symbol, and in syllable-final position, it represented /ng/. The third change was the disappearance of the letter △. This letter, which had been used to write /z/, had been preserved at least orthographically in spellings up through the end of the sixteenth century. But it fell into disuse in the seventeenth century. And though it is true that the symbol occasionally cropped up in some texts, such occurrences were usually confined to reprints or new editions patterned on Middle Korean texts, such as the Tongguk sinsok samgang haengsil to (1517), the Chunggan Tusi ŏnhae (1632), or the Nogŏltae ŏnhae (1670). Since the symbol for the glottal stop (ㆆ) (as well as the bilabial fricative, ㆇ) had already fallen into disuse, these orthographic changes left a system in which twenty-five basic letters were used to write Korean.

The biggest changes in Korean orthography, however, were caused by the breakdown in standardization. Compared to what had preceded it, writing was highly irregular. In the Early Modern Korean period, writers were not constrained very much by spelling rules.
6.2.1 Initial clusters

Some of the worst confusion came in the spelling of initial clusters. In Middle Korean there had been three series of such clusters: (1) sk-, st-, ss-, sp-; (2) pt-, ps-, pth-; and (3) psk-, pst-. But in the seventeenth century, the orthographic distinctions between these clusters broke down. The spelling of words with an initial psk- or pst- became inconsistent. For one thing, a new orthographic cluster, pk-, emerged as an alternative way of writing psk-. As noted earlier, in Chapter 5, even in the earliest Hangul texts sk- had sometimes been substituted for psk-. Now, as a result of this new development, psk- clusters could be written either as sk- or pk-. Examples: psketye 됐더 ‘collapsing’ (1617 Tongguk sinsok samgang haengsil to, Hyojado 3:43), sketinila 써디니라 ‘collapsed’ (ibid. 4:29), pketinila 써디니라 ‘collapsed’ (ibid. 2:84); pskulye 됐더 ‘wrapping’ (ibid., Ch’ungsindo 1:46), skuliGwokwo 써리오고 ‘wrapped, and . . . ’ (ibid., Hyojado 8:8), pkuulye 됐더 ‘wrapping’ (ibid. 6:44). In a similar way, pt- was often written as a substitute for pst-. Examples: pstay 써야 ‘occasion’ (1617 Tongguk sinsok samgang haengsil to, Ch’ungsindo 1:78), ptay 됐 ‘id.’ (ibid. Hyojado 1:33).

The distinction between p-clusters and s-clusters broke down, as pt- was confused with st-, and ps- was confused with ss-. Early examples of such spelling mistakes are found in the 1632 Chunggan Tusi ḏonhae, where ptut 쓰 ‘meaning’ was recorded several times as stut 쓰 (3:49, 7:11, 7:24), but the confusion became more widespread in the latter half of the seventeenth century. Examples: ptenasye 됐나서 ‘departing’ (1676 Ch’ŏphae sinŏ 5:3), stenasye 써나서 ‘id.’ (ibid. 5:11); pswuk 쓰uk, ssuwuk 쓰 ‘artemisia’ (1677 Pak Tongsa ḏonhae 1:35); psukwo 쓰고 ‘uses, and . . . ’ (ibid. 3:28), ssun i 쓰이 ‘using’ (ibid. 2:2). In the eighteenth century the confusion became still worse; by that time, the choice of which kind of cluster was used in spelling a word was essentially random.

Another Early Modern development was the reemergence of the geminate spellings pp-, tt-, kk-, cc-, and these were used as yet another alternative for transcribing consonant clusters. Examples: spayye 써여 ‘withdrawing’ (1617 Tongguk sinsok samgang haengsil to, Hyojado 3:9), ppayye 빼여 ‘id.’ (ibid., Yŏllyŏdo 4:23); spolli 써리 ‘quickly’ (1637 Kwŏnnyŏm yorok 6), ppolli 빼리 ‘id.’ (1632 Chunggan Tusi ḏonhae 4:15).

In the nineteenth century, the tendency toward randomness settled a bit, and these complex initial consonants began to be usually written as s-clusters: sk-, st-, sp-, and sc-. The lone exception was that /ss/ was also sometimes written as ps-.

Though rare, the seventeenth-century transcription sh- (ᄻ-) deserves special mention. The earlier verb form hhye- ḏे - ‘pull,’ with a reinforced consonant, had been replaced by the form hye- ḏे - in the 1465 Wŏn’gak
kyŏng ŏnhae and written that way, with a plain consonant, until the end of the sixteenth century. But in the seventeenth century, ‘pull’ was written shye- 씨-, showing that the verb was in fact still pronounced with initial reinforcement. Examples: hwa.l ol shye 화물 씨 ‘drawing the bow’ (1617 Tongguk sinsok samgang haengsil to, Yŏllyŏdo 4:70), PEP ol shye 법물 씨 ‘citing the law’ (1656 Kyŏngmin p’yŏn ŏnhae, Introduction 3), na lol shye 나물 씨 ‘pulling me’ (1612 Yŏnbyŏng chinam 9).

6.2.2 Terminal consonants

Transcription of the terminal consonants -s and -t became confused. In the fifteenth century, these two consonants had been consistently distinguished at the end of a syllable, but in the sixteenth century, particularly in its latter half, the distinction broke down. By the seventeenth century, the choice between the two spellings became essentially a random decision. Examples:

- kwu t kwo 굳고 ‘harden, and . . .’ (1608 Ōnhae tuch’ang chibyo 1:34), kwusketun 굿거는 ‘when it’s hardened’ (ibid. 2:217);
- mwu t kwo 묻고 ‘ask, and . . .’ (1637 Kwŏnnyŏm yorok 3), mwus нед ‘(not) ask’ (1676 Ch’ŏphae sinŏ 1:9);
- ma t mặt ‘taste’ (1617 Tongguk sinsok samgang haengsil to, Hyojado 4:30), mat 말 ‘id.’ (ibid. 1:36);
- mwo t 못 ‘pond’ (1637 Kwŏnnyŏm yorok 3), mwot 못 ‘id.’ (ibid. 30). In the eighteenth century, -t gradually ceased to be used as a terminal consonant as it was replaced in all cases by -s. There is even an example where mite ‘believing’ was written mise 밀어 (1777 Myŏngŭrok ŏnhae). This spelling was an extreme case of overcorrection, because here, t occurred before a vowel and was surely realized as [d].

6.2.3 Medial spellings

The spellings -ll- and -ln- were interchangeable, so that cinsi_lo ‘truly’ was often written as cinsi_no 진실노, pulle ‘calling’ as pulne 놀너, hulne 흘너, etc. In Middle Korean, all occurrences of these forms had been written with a medial -ll- and never with an -ln-. Another Early Modern oddity was that the transcription of reinforced and aspirated consonants in medial position often included an extra, redundant consonant. Here are a few examples: kis.ske 깃쳐 ‘being made happy’ (1617 Tongguk sinsok samgang haengsil to, Hyojado 6:27), mwulup.ph_i 무릎의 ‘knee [+ nominative particle i],’ (1608 Ōnhae tuch’ang chibyo 1:35), kwot.ch ol 꽃 RouterModule ‘flower [+ accusative particle ol]’ (ibid. 2:49), kwos.ch ul 꽃ولات ‘id.’ (1677 Pak T’ongsa ŏnhae 2:43), puk nyek.kh uy 북먹의 ‘the north side’ (1670 Nogŏltae ŏnhae 1:15). From spelling errors of this kind, we see that the orthographic standards of the Middle Korean period had not completely disappeared. They remained, rather, as a kind of ideal of which Early Modern scribes were aware but did
not control. Efforts by scribes to preserve, on the one hand, the traditional spellings and, on the other, to record how the words were actually pronounced resulted in the highly unsystematic orthography that characterized the Early Modern period. But what is also revealed in these Early Modern spellings is the kind of awareness writers had of their language’s morphology. One thing that was especially clear was that a noun and a following particle were consistently regarded as forming an indivisible unit. Such constructions were thought of as single words, as even a superficial examination of the spellings in such works as Pak T’ongsa ŏnhae or Myŏnguirok ŏnhae will show. The spelling of noun phrases was one of the more revealing aspects of Early Modern orthography.

6.3 Phonology

Despite the sudden changes in Korean writing, the linguistic transition into the Early Modern period was not an especially abrupt one. The capital remained in Seoul, and since the de facto standard was still the speech of the aristocratic classes who lived there, the changes were, for the most part, ones already under way in the Middle Korean period.

On occasion, seventeenth-century spellings revealed aspects of the phonology that had been masked by the traditional orthography. One such spelling was sh- _uniform. In the earliest Hangul texts, the verb stem hhye- مهارات - ‘pull’ had an initial transcribed with the geminate spelling hh- ولوجي-, but beginning with the 1465 Wŏn’gak kyŏng ŏnhae, that spelling had been replaced by a simple h- ولوجي, making it appear as if the reinforcement had been lost. However, in seventeenth-century texts, the verb stem appeared in texts as shye- หมอ-, showing that the earlier, reinforced pronunciation had not disappeared but had, rather, been merely hidden by spelling convention. Then, beginning with the 1670 Nogŏltae ŏnhae, the stem came to be transcribed as khye- หมอ: yele mwosip_uy sal nakuney khyewola 여러 모시의 살 나그네 써오라 ‘Draw travelers to buy some ramie cloth!’ (2:53).

6.3.1 Consonants

The inventory of consonants in the seventeenth century differed from that of the fifteenth century in two ways. (1) First, it did not have a series of voiced fricatives, /W, z, G/, since W and z had disappeared during the Middle Korean period, and G soon thereafter. (2) Second, the series of reinforced consonants was now fully developed and included the affricate /cc/: /pp, tt, kk, cc, ss, hh/.

6.3.1.1 G (○)

The transcription of the voiced velar fricative G following the liquid /l/ was maintained into the sixteenth century, but in the latter half of the century
-lG- was replaced by -ll- in the spelling of verb inflections. In the seventeenth century, -lG- was often replaced by -ll- (or -ln-) in the transcription of nouns as well. For example, Middle Korean nwolGay 놀애 ‘song’ appeared as nwołlay 놀래 (1617 Tongguk sinsok samgang haengsil to, Hyojado 6:27) and nwollay 놀래 (1676 Ch’öphae sinô 6:8, 9:6); nwolGay 놀애 ‘sand’ as nwollay 놀래 (1632 Karye ᄄᆡ허례 3:54, 6:25). The Middle Korean genitive form of the noun nwol 노로 ‘deer’ was nwol.G oy; in seventeenth-century texts, we see nwol.l uy kwoki 놀 베 고기 ‘deer meat’ (1617 Tongguk sinsok samgang haengsil to, Hyojado 7:4), nwol.l oy kwoki 놀 베 고기 ‘id.’ (1690 Yŏgŏ yuhae 1:50), and nwol.l oy saski 놀 렳 삭기 ‘deer offspring’ (ibid. 2:39).

However, in the seventeenth century there was also another development. In these same nouns, the G sometimes simply dropped, leaving the single liquid /l/ (which was presumably pronounced [r]). Examples: nwol.lay 노래 ‘song’ (1677 Pak T’ongsa ᄄᆡ허례 1:26), nwol.lay 모래 ‘sand’ (1632 Karye ᄄᆡ허례 7:24). For a while, both spellings, -ll- and -l-, coexisted, but by the eighteenth century the nouns were always written with a simple medial -l-. In other words, what had originally been -lG- clusters developed in two different directions. In verb forms, they consistently became -ll- (e.g., wolGa 올아 ‘goes up,’ > wolla 올라), and that is what they still are today. But in nouns the outcome was different. At first, -ll- and -l- coexisted, then, somewhat later, -l- became the dominant form (e.g., nwol.lay 노래 ‘song’ > nwollay 노래 > nwol.lay 노래).

### 6.3.1.2 Clusters and reinforcement

The development of initial clusters into reinforced consonants began in the Middle Korean period and is thought to have reached completion sometime in the middle of the seventeenth century. Textual evidence can be found in the fact that early seventeenth-century scribes confused the spellings of psk-, sk-, and pk-. In the 1632 Chunggan Tusi ᄄ(targetEntity), ptut 뜋 ‘meaning, intent’ is often written as stut 뜋, and the clusters pt- and ps- are regularly confused with st- and ss- in texts from the latter half of the seventeenth century. Particularly revealing was the emergence of a new spelling, sc- 스-, which, if taken at face value, would have represented a cluster that had not existed in Middle Korean. This spelling is found regularly in the early eighteenth-century text Waeŏ yuhae; e.g., scol 스 ‘salty’ (1:48), scak 스 ‘one of a pair’ (2:33). (In Middle Korean, these words had begun with pc-.) However, even earlier evidence for the change pc- > cc- comes from the 1676 Ch’öphae sinô, where the spelling cc- 스- itself can be found: ku ccom_ol 그 스 ‘this interval’ (7:19). By around the middle of the seventeenth century, all such spellings represented reinforced consonants.
6.3.1.3 The spread of reinforcement and aspiration

In texts from the fifteenth and sixteenth centuries, there were already numerous examples of the sporadic reinforcement or aspiration of plain obstruents. But during the Early Modern period the phenomenon became far more common. The following examples of reinforcement are taken from the early part of the period: ssut-蟾- ‘wipe away’ (< sus-) (1617 Tongguk sinsok samgang haengsil to, Sinsok yǒllǒ to 5:13), stwul-ImageUrl(191,245)- ‘bore’ (< tulp-) (1677 Pak T’ongsa önhae 1:14), stkwoc- BufferedWriter(191,245)- ‘stick in’ (< kwoc-) (1690 Yǒgǒ yuhae 1:43). Such cases of reinforcement were not phonologically conditioned; they represented instead the use of reinforcement for its impressionistic value, as a kind of sound symbolism that made the word more emphatic. Other occurrences of reinforcement resulted from regressive assimilation. This process can be seen in the words kwoskwoli 꽃고리 ‘Korean nightingale,’ koskos_ho-ImageUrl(191,245)- ‘is clean,’ tet.tet_ho-ImageUrl(191,245)- ‘is fair,’ and tostos_ho-ImageUrl(191,245)- ‘is warm,’ which changed into their modern forms kwowykkwoli, kkaykkus_ha-, ttattus_ha- and ttattus_ha- around the beginning of the eighteenth century. Example: stos.stos_hota-ImageUrl(191,245)- ‘is warm’ (1748 Tongmun yuhae 1:61).

The reinforcement of two Sino-Korean morphemes is particularly conspicuous and noteworthy. The Middle Korean readings of 雙 ‘double’ and 喫 ‘eat’ had been attested in the 1527 Hunmong chahoe as swang 쌍 and kik 급. But by Early Modern times the two came to have reinforced initials. In the 1824 Ŭnmunji we read: “In recent days in colloquial Korean, with the exception of the two characters 雙 ssang 쌍 and 喫 kkik 급, no [characters] have ‘wholly muddy’ (全濁) pronunciations.” The early eighteenth-century textbook Waeŏ yuhae gives the character explication [SSANG] ssang ssang ‘double ssang’ 雙 쌍쌍 (2.33). Those two character readings were not the only ones that changed, however; the character 氏 also came to have a reinforced pronunciation. The 1637 Kwŏnnyŏm yorok contains the entries [SWONG SSI] swong ssi 宋氏송씨 ‘the wife of Song’ (1) and [KWU SSI] kwu ssi 具氏구씨 ‘the wife of Ku’ (20), and the form ssi 씨 is also found in royal edicts from 1781 and 1783. And yet the pronunciation was apparently not always reinforced. And judging from the Ŭnmunji passage about Sino-Korean, the character was apparently also still read si as late as the early nineteenth century.

Sporadic aspiration was somewhat less common, but still significant. Examples: thas 탓 ‘cause’ (< tas) (1676 Ch’ŏphae sinǒ 6:9, 9:7), phwulmwu 플무 ‘bellows’ (< phwulmwu) (1677 Pak T’ongsa önhae 3:29), kwokhili 코끼리 ‘elephant’ (< kwokhili) (1690 Yǒgǒ yuhae 2:33).

6.3.1.4 Palatalization

The most significant phonological change during the Early Modern period was palatalization. This process caused the dental consonants /t, th, tt/ to
change into the spirants /c, ch, cc/ when followed by i or y, and in some parts of Korea, the velar consonants /k, kh, kk/ underwent the change as well. These changes began quite early in the southern dialects and are believed to have spread north from there. In Seoul, only /l, th, tt/ palatalized, and then only very late. In the P’yŏngan dialects in the northwestern part of the peninsula, the consonants have still, to this day, remained unaffected by the process.

In his 1824 work Ŭnmunji, Yu Hŭi offered some interesting observations that shed light on the timing and progress of these changes:

In colloquial Korean, tyȧ다 and tye 더 are pronounced like cyȧ쟈 and cy𝚎 져, and thyȧ다가 and thye 더 are pronounced like chya 쑤ja and chye 져. This is nothing more than the relative difficulty or ease of pressing down the chin. These days only the people in the northwest do not pronounce the character THYEN (天) like CHYEN (千), or the character TI (地) like CI (至).

This passage clearly indicates that, by the early part of the nineteenth century, all of the country’s dialects except those in the northwest had undergone palatalization. Yu Hŭi then goes on to say this:

Furthermore, I heard Master Chŏng say that his great-great grandfather had two brothers, one was named [in the earlier pronunciation] TIHWA (知 和) and the other CIHWA (至 和), and at that time he never had doubts about [the names]; it can be seen that the confusion of ti 디 and ci 지 was then still not old.

The elderly Mr. Chŏng that is mentioned in this passage was Chŏng Tongyu (1744–1808), a Hangul scholar and advocate and Yu Hŭi’s teacher. And, if this interesting anecdote can be taken at face value, palatalization had still not taken place during the lifetime of Chŏng Tongyu’s great-great grandfather (probably around the middle of the seventeenth century). Of course, the passage does not give a precise dating of the change; it only allows one to surmise that palatalization must have occurred during the latter half of the seventeenth, or in the eighteenth century. A precise dating of the change can only be established through the examination of textual materials.

The earliest extant attestations of palatalization appear to be those found in the early eighteenth-century Japanese textbook Waeŏ yuhae. Examples: THA chi.l tha 打 틀타 “the [Chinese character] tha [that means] “hit’” (1:30), WA cisay 瓦 지새 ‘tile WA’ (1:32), CO cilu.l co 찢 지를 쥐 ‘pierce co’ (1:54), CHYWUL naychi.l chywul 昇 내칠 쥐 ‘degrade chywul’ (1:54), YWONG ccilu.l ywong 씁 쥐물 용 ‘mill ywong’ (2:3), CHYWOK ccilu.l chywok 觸 쥐를 쥐 ‘stick chywok’ (2:24), LAK ci.l lak 落 쥐 ‘fall lak’ (2:30). (The Middle Korean forms of these words had been thi- ‘hit,’ tisay ‘tile,’ ti- ‘pierce,’ naythi- ‘degrade,’ tih- > stih- ‘mill,’ pstilu- ‘stick.’) Moreover, the 1748 Manchu glossary Tongmun yuhae confirms that the process of
Palatalization was already complete by that time. Examples: *scis.tha* 씨타 ‘pound, crush’ (< stih- < tih-) (2:2), *scita* 석타 ‘steam’ (< pti-) (1:59), *cik.hita* 검히타 ‘protect’ (< tik.huyyta) (1:45), *kwocisik* 고지식 ‘simple and honest’ (< kwotisik) (1:21), *cwomchyelwo* 족처로 ‘trifling’ (< -thyelwo) (2:57). From these attestations it can be seen that palatalization must have taken place some time around the turn of the eighteenth century.

As a result of palatalization, the consonant–vowel combinations /ti, tya, tye, tywo, tywu/ and /thi, thya, thye, thywo, thywu/ disappeared from the Korean phonological inventory. However, at the beginning of the nineteenth century /tuy, thuy, ttuy/ changed to /ti, thi, tti/, giving rise to those consonant–vowel sequences anew. Examples: *kyentuy* > *kyenti-* ‘endure,’ *mwutuy* > *mwuti-* ‘dull,’ *ttuy* (written *stuy* 씨투) > *tti* (sti 틸) ‘belt.’

Palatalization must be understood as a broader phonological process than just these phonemic changes, however. First of all, a necessary precondition for them was a palatal pronunciation of the affricates /c, ch/, and in Middle Korean those consonants had been pronounced as dental affricates ([ts], [dz], etc.). The dental affricates must first have changed in pronunciation to palatals ([tʃ], [dʒ], etc.) before /i, y/ in order for the palatalization of /t, th, tt/ to have taken place. Moreover, at some point in the early Early Modern period the dental affricates became palatalized in all environments, resulting in the neutralization of the Middle Korean distinctions between /ca, ce, cwo, cwu/ (자, 저, 조, 주) and /cywa, cye, cywu/ (자, 저, 조, 주). The 1670 *Nogoltae önhae* and the 1690 *Yogó yuhae* contain a large number of spellings showing that these distinctions had by that time become confused. Examples from the *Yogó yuhae*: *cyewul* 저울 ‘scales’ (< *cewul*) (2:16), *cecay* 저재 ‘market’ (< *cyecay*) (1:68), *cekun* 저근 ‘small’ (< *cyekun*) (1:35), *cywul* 줄 ‘string’ (< *cwul*) (2:17). Example from the *Nogoltae önhae*: *chyang* 쟈양 ‘boot soles’ (< *chang*) (2:48). Finally, palatalization is in fact a process that affected the pronunciation of a variety of consonants before /i, y/. For example, the consonants /s/ and /n/ have the palatal allophones [ʃ] and [ɲ] in that environment, and that was surely also the case in the Early Modern period.

6.3.1.5 Dropping of initial n-

Closely related to palatalization is the dropping of the consonant *n*- in word-initial position before /i, y/. The loss of this consonant apparently took place in the latter half of the eighteenth century, because it is in texts from that time that word-initial *ni-* 니 began to be written as *i-* 이. In the 1772 text *Sipkusaryak önhae*, the word for ‘king’ is written *imkum* 임금 (< *nimkum*), and the spellings *il.um* 일음 ‘speaking’ (< *nilum*) and *iluhi* 이르히 ‘until arriving’ (< *niluhi*) can be found in royal edicts (*yunín*ım) of 1782 and 1783. In the nineteenth century, examples like these became the rule.
There are a few examples of the dropping of /l/ before the labial /ph/. The change is seen in Middle Korean forms such as alph ‘front,’ alpho-알포- ‘hurt, ail,’ and kwolpho- 골포- ‘be hungry,’ which changed to aph, aphu-, and kwophu-. Examples: a.ph_oy 애오파 ‘in front’ (1617 Tongguk sinsok samgang haengsil to, Sinsok yŏllyŏ to 6:18), ap.h uy 압허 ‘in front’ (1676 Ch’ŏphae sinŏ 5:23), aphukey hota 아프게히다 ‘cause to hurt’ (1748 Tongmun yuhae 2:30), poy kwopphuta 빽 곱프다 ‘be hungry’ (1748 Tongmun yuhae 2:28).

In a small number of Korean words, a nasal has unexpectedly developed before an affricate in intervocalic position. This nasal epenthesis is attested as early as the Middle Korean period; the fifteenth-century verb kochwo- ‘hide,’ for example, was written komchwo- in the sixteenth century. Example: komchwota 농초다 (1569 Ch’iltae manpŏ 7; 1577 Yaun chagyŏng 67). But other cases are found in Early Modern Korean and later. The verb teči- ‘throw,’ for example, became teči- in Early Modern Korean through palatalization; examples: tečini 더지니 (1704 Samyŏk ch’onghae 1:21), tečye 더져 (1778 Sok Myŏnggūrok ŏnhae 1). Later, in Contemporary Korean (and today’s modern Seoul), the word became tenci-, with a nasal /n/ developing before the affricate. In the 1617 text, Tongguk sinsok samgang haengsil to, the verb kуч- ‘break off’ appears in its infinitive form as kunche 근처 (Yŏllyŏdo 3.27), another clear case where a nasal has been inserted.

There were a number of idiosyncratic changes, one of which is seen in the word tisay ‘tile.’ In Korea, the traditional material out of which roofs are made is straw thatch, and in the fifteenth century, the word for such ‘grass’ or ‘straw’ was say. When tiles were first imported into Korea from China, til ‘earthenware’ was added in front of the word for ‘thatch’ as the name for this new roofing material. The /l/ in *tilsay then elided, making tisay the word for ‘tile.’ This form endured well into Early Modern times, as is seen, for example, in the 1690 text Yŏgŏ yuhae. In the eighteenth century, however, the word changed, appearing variously as cисay, ciwa, and kiwa. Examples: cisay 지새 (1748 Tongmun yuhae 1:36; 1776 Hanch’ŏng mun’gam 12:10); ciwa 지와 (1776 Hanch’ŏng mun’gam 13:16); kiwa기와 (1778 Sok Myŏnggūrok ŏnhae 1). The form cisay resulted of course from palatalization; in ciwa (and kiwa), the Sino-Korean morpheme wa (瓦) ‘tile’ has replaced the native morpheme say.

But the initial /k/ in kiwa requires a more circuitous explanation, since the change t > c > k was not a regular one. Note, however, that the change of Middle Korean cilsam 질삼 ‘weaving’ into kilssam 길쌈 was a parallel development, as was the change of Middle Korean cich 깫 ‘feathers’ into kis 깫. Middle Korean cil_tul- 질들- ‘domesticate’ became kil_tul- 길들-. Moreover, Middle Korean masti- 맘디- ‘entrust’ did not change directly into Contemporary Korean maski- (phonemically /maki/ and spelled...
morphophonemically as mathki- 맞기-); rather, it passed through masci-
맞지- as an intermediate form. Example: mascye 맞저 ‘entrusting’ (1777
Myǒnggirokk önhae 1:3). The Middle Korean word timchoy 닭치 ‘kimchi’
(a Sino-Korean form 沈菜 that replaced native tihi) was written cimchoy
짐치 or cimchuy 짐치 in some Early Modern texts, and cimchi is still the
word for ‘kimchi’ in many southern dialects.

These word forms are believed to have been caused by hypercorrection, or
overcompensation. In dialects spoken in Kyǒngsang and Chǒlla, palataliza-
tion and affrication affected not only dental stops as they did in the capital
area; in those southern dialects, the process spread and also caused /ki/ to
change to /ci/ (e.g., /kil/ ‘road’ > /cil/). But since such regional speech was
lower in prestige relative to Seoul, there were widespread attempts to restore
the “correct,” more prestigious velar stop pronunciation in such words, and a
lot of mistakes were made. As a result, even standard Korean is left today
with the hypercorrected forms kiwa ‘tile’ (for earlier ciwa 지와) and kimchi
(for earlier cimchuy 짐치 < timchoy 닭치).

6.3.2 Vowels
6.3.2.1 The loss of /o/ (ᆞ)
In the Early Modern period, the greatest change in the vowel system occurred
in the latter half of the eighteenth century, when the Middle Korean vowel /o/
was lost. The first stage in this loss had taken place in the sixteenth century,
when the vowel merged with other vowels, usually /u/, in non-initial syllables.
Its loss in initial syllables in the late eighteenth century completed the
process.

The first documented example of the loss of /o/ in an initial syllable is
found in one of the last texts published during the Middle Korean period, the
1588 Sohak önhae, where the word holk ‘earth’ appears as hulk 흙 (6:122)
This same form hulk appears in a number of places in the early seventeenth-
century text, the 1617 Tongguk sinsok samgang haengsil to, which also
contains examples of the word somay ‘sleeve’ written as swomay 소매
(Yǒllyǒdo 4:14). However, the changes seen in both of these words are
different from the regular change o > a that took place later, in the latter
half of the eighteenth century. Rather, they belonged to the first stage of the
vowel loss, in which /o/ merged with /u/ or /wo/ in non-initial syllables;
perhaps these particular words appeared often enough in compounds or
otherwise in structurally non-initial position to precipitate the changes. In
the latter half of the seventeenth century, the forms haya_poli- 하야 политик
and hayya_poli- 해야 политик ‘tear down’ (< hoya_poli-) appeared in the 1677 Pak
T’ongsa önhae, and kaoy 가이 ‘scissors’ (< kozGay 가이) appeared in the
1690 Yǒgǒ yuhae. This small number of examples, however, is not sufficient
to substantiate that /o/ had been lost. In texts from the middle of the eighteenth century – in the *Tongmun yuhae* from 1748, for example – *kannahoy* ‘woman, girl’ was written *konnahoy* 군나히, but that word is the only addition to the list of forms in which the vowel had been lost by that time.

The *Hanch’ông mun’gam* of 1776 is the oldest extant text preserving enough examples to establish definitively the loss of /o/ in initial syllables. In that text, spellings involving the vowel are thoroughly confused. The Sino-Korean word for ‘tomorrow’ (來年) is spelled both *laynyen* 래년 and *loynyen* 녀년; ‘play (an instrument)’ is *thata* 타다 as well as *thota* 톡따; ‘pull’ is *toloyta* 톨리다, *taluyta* 다리다, and *taloyta* 다리다. Moreover, there are numerous examples of words written with the vowel /a/ instead of /o/. Examples: *kalay* 가래 ‘wild walnut’ (< *kolay*), *talphayngi* 달팽이 ‘snail’ (< *tolphayngi*), *taloy* 다리 ‘Actinidia arguta’ (< *tolay*). Somewhat later, in a royal edict (*yunum*) of 1797, the spellings *kaca* 가자 ‘furnished, available’ (< *koca* [koc- + -a]) and *katatumnon* 가다듬는 ‘straightening up’ (< *kotatumnon*) also reveal the loss of the distinction. Examples such as these show clearly that the vowel /o/ ceased to be phonemically distinct around the middle of the eighteenth century. This second and last stage in the loss of the vowel can, for the most part, be formulated as the change /o/ > /a/.

These conclusions are substantiated by statements made by scholars who lived during that time. Sin Kyŏngjun, who lived from the 1710s to the 1770s, wrote about the letter ᅡ in his 1750 work *Hunmin ch’ŏngu unhae*. In a passage in which he also touched on the curious double letter ᆢ (a symbol which he himself had created to represent yo), Sin wrote: “In our eastern region [i.e., Korea], ㆍ very often serves as a medial sound, while ᆢ never does. However, in dialects, ‘eight’ is called *yotolp* ᆓߥጌ, and there it is a syllable.” From this statement it is clear that Sin Kyŏngjun was aware of the pronunciation associated with the letter ㆍ. Later in the period, Yu Hŭi, who lived from the 1770s to the 1830s, wrote in his 1824 *Ŏnmunjı*: “The unrefined in Korea are not clear about ㆍ, often confusing it with ᆽ; for example, characters that have ㆍ like 單 [O] and 事 [SO] are now in unrefined speech falsely pronounced like 阿 [A] and 些 [SA]. Or they confuse it with ㅡ, as in 한 土 ‘earth,’ which is now read ᆫึ.* These statements attest to and help date the loss of /o/. Nevertheless, even though the phoneme /o/ had been lost before the end of the eighteenth century in Korean speech, the letter ㆍ continued to be used until the rules of modern orthography were established in 1933.

### 6.3.2.2 Monophthongization

Through the loss of /o/, the first-syllable diphthong *oy* changed to *ay*. Sometime after that, the diphthongs *ay* and *ey*, which had been pronounced [aɪ] and [əɪ], monophthongized to [ɛ] and [e]. Since *oy* behaved like *ay* and changed
to [ɛ] as well, the two must have merged before this monophthongization occurred. Monophthongization is thus thought to have taken place after the loss of /o/.

Philological evidence for monophthongization comes from cases of umlaut found in the 1855 Kwansŏng chegun myŏngsŏng kyŏng ŏnhae. Examples: oyk.kinon 익기논 ‘sparing of’ (26) (< aski-), toylikwo 텔리고 ‘boils down’ (27) (< toli-), meykin 메긴 ‘feeding’ (28) (< meki-), kitoylye 기토みたいです ‘wait’ (30) (< kitoli-), ciphoyngi 지필이 ‘cane’ (33) (< ciphangi), soyk.ki 식기 ‘the young (of an animal)’ (33) (< saski). As can be seen in these examples, a second-syllable i caused the fronting of a first-syllable [a] to [ɛ] and a first-syllable [ə] to [e], changes believed to have taken place around the turn of the nineteenth century. This kind of umlaut could only have happened after the monophthongization of diphthongs. Therefore, the monophthongization of ay and ey must have occurred at the end of the eighteenth century.

The diphthongs woy and wuy, however, do not yet appear to have taken on their present-day values at that time. (In the modern standard, /woy/ is [wɛ] or [o¨], and /wuy/ is [wi] or [u ¨].) In nineteenth-century texts, very few examples of those particular diphthongs were produced by umlaut.

### 6.3.2.3 The vowel system
These two important changes, the loss of /o/ and the monophthongization of /ay/ and /ey/, fundamentally altered the Korean vowel system. After they had taken place – that is, around the beginning of the nineteenth century – the Early Modern vowel system had eight monophthongs. The system was as follows:

\[
\begin{array}{c|cccc}
| & i [i] & u [i] & wu [u] & \\
| --- & --- & --- & --- & \\
| ey [e] & e [ə] & wo [o] & \\
| ay [ɛ] & a [a] & \\
\end{array}
\]

### 6.3.2.4 The erosion of vowel harmony
Before the advent of the Early Modern period, in the sixteenth century, the vowel o merged with u in non-initial syllables. This change had a great effect on the Middle Korean vowel harmony system, for even though o still contrasted with u in initial syllables, the contrast was neutralized in non-initial syllables. Thus, the vowel u became, at least in part, a neutral vowel in the system. The breakdown of Middle Korean vowel harmony resulted from the neutralization of its vowel harmony oppositions, and the neutralization of u in non-initial position was a decisive step in this process.

In the eighteenth century, the vowel /o/ merged with /a/ in initial syllables (the second, and final, stage in the loss of /o/). This change did not neutralize a vowel harmony opposition, since both /o/ and /a/ were yang vowels. However, it did change the system, because through the merger, /a/ incorporated
the oppositions previously associated with /o/. Thus, /a/ was not only paired with /e/ as before, it was now paired with /u/ as well.

Early Modern texts showed the change /wo/ > /wu/ in non-initial syllables with increasing frequency during the period. This development represented a serious erosion of vowel harmony between stems and endings.

6.3.2.5 Minor changes
In the Early Modern period there were a number of vowel changes that had little effect on the overall structure of the system. Here are three:

Reduction of other diphthongs In Middle Korean texts, there had been some occurrences of the word pwulhwuy ‘root’ in which the diphthong wuy was realized as uy (for example, the 1588 Sohak ŏnhae contains the phrase nomol spwulhuy 논물 씨희 ‘herbal roots’). But the tendency to replace wuy with uy spread in the seventeenth century. Examples: pwulhuy 불희 ‘root’ (1690 Yŏgŏ yuhae 1:33), puy- 빼 ‘empty’ (1677 Pak T'ongsa ŏnhae 1:55) (< pwuy-), puy- 빼 ‘cut’ (1677 Pak Tongsan ŏnhae 1:48) (< pwuy-).

Somewhat later, uy was reduced to i. Examples: muyp- ‘is hateful’ > mip-, pwulhuy ‘root’ > pwulhi. (The change tuy > ti mentioned above was of course part of the process.) Just when this monophthongization occurred has not yet been established.

Labialization In Early Modern Korean, the vowel u labialized after a labial consonant (m, p, ph, or pp), and the distinction between /u/ and /wu/ was lost in that environment. In Middle Korean, mul 물 ‘water,’ for example, had stood in contrast with mwul 물 ‘group,’ but now that was no longer true. This change can be seen in the 1690 text Yŏgŏ yuhae: pwul 불 ‘fire’ (2:18) (< pul), mwu-comi_hota 무써미하다 ‘dive’ (2:22) (< mu-comi_hota), pwusta 봉따 ‘strain (wine)’ (1:59) (< pusta ‘pour’), pwuthita 부티다 ‘stick on’ (1:10), mwutentha 무던타 ‘is quite satisfactory’ (2:46) (< muten_hota). Such examples become the rule in eighteenth-century texts. An extremely large number of them are seen in the 1748 Tongmun yuhae; for example, pwul 불 ‘fire’ (1:63), spwul 씨 ‘horn’ (2:38), phwul 물 ‘grass’ (2:45), nomwul 논물 ‘herbs’ (1:59) (< nomul < nomol), pwulkta 봉따 ‘is red’ (2:25). From these textual attestations it can be seen that labialization took place around the end of the seventeenth century.

Vowel fronting Nineteenth-century texts contain many words showing the change u > i following one of the spirants s, c, ch. Here are some examples from the 1855 Kwansŏng chegun myŏngsŏng kyŏng ŏnhae: tasilinon 다시리논 ‘governing’ (9), elkewun 절거운 ‘enjoyable’ (11), chocini 축지니 ‘seeks and so...’ (18), anciwoy 안지되 ‘even though (he) sits...’ (31),
icilecikwo 이지러지고 ‘wane, and . . . ’ (22). Notice that the standard Seoul forms of the words today (tasulinun, culkewun, chacuni, ancutwoy, icilecikwo~iculecikwo) do not generally reflect the change. Here is an exception, however: in the sixteenth century, the Middle Korean word achom 아침 ‘morning’ changed to achum 아줌. In the nineteenth century, the vowel was fronted in the presence of the spirant, and the word became achim 아침, which is the form of the word today.

6.3.3 Suprasegmentals

As has already been stated in Chapter 5, Middle Korean tones were lost in the sixteenth century. Thus, Early Modern Korean was not a tone (or a pitch accent) language.

But syllables that had been marked as rising tones consisted of two moras, and the length of the syllable naturally persisted even after the loss of its distinctive pitch. Once the pitch distinction had been lost, the vowel length became distinctive. This vowel length was not transcribed in Middle Korean texts, but a transcriptional trace of it can be found in the case of the vowel e. The phonetic realization of the vowel was different depending on whether it was long or short, and this difference is reflected in some of the textual records from the nineteenth century. That is to say, a long ĕ/ı/ had a phonetic value close to that of /u/, a fact that is evident in the following transcriptions, for example: skulici 스리지 (< skelı- :سير-) ‘avoid’ (1880 Kwahwa chonsin 8), utulini 유헌리니 (< ĕt- :연-) ‘acquire’ (1881 Chogunnyŏng chŏkchi 6).

6.4 Grammar

A cursory look at Early Modern texts of the seventeenth century reveals a language structure unlike that seen in Middle Korean texts of the fifteenth century. For the most part, the differences between the two are the result of changes that had taken place in the sixteenth century but which had been hidden from view by literary convention. Middle Korean scribes had adhered to stylistic standards, and when those standards were lost, changes suddenly emerged in the written record. And since no new standards were devised to replace the old ones, the differences in the written language became ever more severe in the eighteenth century, finally reflecting, by the nineteenth century, a language much the same as the contemporary standard language of today. These latter changes were ones that for the most part took place in the Early Modern period.

When the grammatical system of Early Modern Korean is compared to that of Middle Korean, the most striking characteristic is the tendency toward structural “simplification” – that is, a more streamlined system. As will be
discussed later, this tendency toward simplification is seen in almost every aspect of Early Modern grammar. This tendency actually began in the sixteenth century, but up until the beginning of the seventeenth century it could not escape the shadow cast by the old system. The written language kept it hidden. For this reason, it is undeniably difficult – though not completely impossible – to ascertain through the textual record which grammatical changes took place in the Early Modern period and not before.

6.4.1 Morphology

Verb stems could appear in isolation in Middle Korean, but that was no longer true in Early Modern Korean. As a result, such things as the use of verb stems as adverbs and the combining of verb stems directly into compounds were no longer productive processes in Early Modern Korean. Examples of such constructions are occasionally seen in Early Modern texts, but in every case those are fossilized Middle Korean structures. One interesting illustration of the change can be seen in the use of the form kot ‘like, as.’ The earlier use of kot is seen, for instance, in the 1447 Yongbi ᄆᆡḥ’ён ka passage hanols pye.1 i nwun kot tini.gnita 하늘버리눈눈더니이다 ‘the stars in heaven fall like snow’ (50). But by the seventeenth century that usage had become incomprehensible, so in the 1657 reprint of the text the passage was corrected to read nwun kotteni.ngita 눈눈더니이다 ‘[the stars in heaven] were like snow.’ In other words, what had been a separate verb (tini.ngita ‘fall’) in Middle Korean was changed into a verb ending for the verb stem kot-.

Except for a few minor differences, numerals remained relatively unchanged in Early Modern Korean. The cardinal numerals, as given in the eighteenth-century Manchu glossaries Tongmun yuhae (2.20–21) and Hanch’ŏng mun’gam (4.25–27), were as follows: honna ᄃ홉나 ‘1,’ twul 둘 ‘2,’ seys 셋 ‘3,’ neys 냥 ‘4,’ tasos 다섯 ‘5,’ yesos 여섯 ‘6,’ nilkwop 닐곱 ‘7,’ yetolp 여덟 ‘8,’ ahwop 아홉 ‘9,’ yel 열 ‘10,’ sumul 스물 ‘20,’ syelhun 설훈 ‘30,’ mahun 마흔 ‘40,’ swuyn 스윈 ‘50,’ yesywun 여쉰 ‘60,’ nilhun 닐훈 ‘70,’ yetun 여든 ‘80,’ ahun 아흔 ‘90,’ poyk 빐 ‘100,’ chyen 천 ‘1,000,’ man 만 ‘10,000.’ Of these numerals, honna ᄃ홉나 ‘1,’ twul 둘 ‘2,’ and yel 열 ‘10’ still had, in the seventeenth and eighteenth centuries, a morphophonemic final -h like that of the Middle Korean forms. There was one noteworthy change in Early Modern Korean: the Middle Korean higher numerals won 온 ‘100’ and cumun 즈믄 ‘1,000’ had by this time completely disappeared and had been replaced by Sino-Korean poyk 빐 and chyen 천. In addition, among the ordinals, a new form ches-cay 첫재 ‘first’ made its appearance. (In the 1748 Tongmun yuhae the form was ches-kes 첫것.) This suffix -cay came to be uniformly used for ordinals; e.g., twul-cay 둘재 ‘second,’ seys-cay 셋재 ‘third.’
6.4.1.1 Nominal suffixes

The most common suffix used to derive nominals from verb stems was still -(o/um). However, its usage had changed. In Middle Korean, a distinction had been maintained between its use in deriving nouns and its use in nominalizing sentences. That is, in deriving nouns, -(o/um) had been suffixed directly to the verb stem, while sentential nominalizations had incorporated the volitive -wo/wu- between the stem and the suffix. This distinction had been lost by Early Modern times. As a result, forms used in sentential nominalizations, such as wulwum ‘... crying’ and wuzwum ‘... laughing,’ no longer incorporated the volitive and became indistinguishable from derived nouns such as wulum ‘crying’ and wuum ‘laughing.’

The original, 1527 edition of the Hunmong chahoe contains the entry [MYENG] wulwum myeng 嚿 우름명 [the character] 嚿 [that means] “cry” [and is read] myeng’ (3.8), but in the 1613 reprint the word was corrected to wulum 우름. The 1676 Ch’ophae sinŏ, for example, used wuum 우음 ‘... laughing’ (9.1.9.11) as the form of the verb when it served as the predicate in a nominalized sentence. However, the nominal chwum ‘dancing’ constituted an exception to this rule. In this case, it was not the nominalization that changed, but rather the stem of the verb. In Middle Korean the stem had been chu- ‘dance,’ but by Early Modern times it had become chwu-. Here are two example occurrences: chwum chwuta 춤추다 ‘dance a dance’ (1690 Yŏgŏ yuhae 1.60, ?1720 Waeŏ yuhae 1.42).

The nominalizing suffix -i became completely unproductive. The only occurrences in Early Modern Korean were fossilized Middle Korean forms; e.g., mascwoi 맛조이 ‘welcoming’ (1676 Ch’ophae sinŏ 5.18 < MK ma.ccoWi 마 konuştu), nwol.i 놀이 ‘playing’ (1670 Nogŏltae ŏnhae 2.48).

The related nominalizing suffix -(o/uy) had attached to adjectives, and nominals such as khuy 키 ‘size’ (< khu- ‘big’), nwophoy 노폭 ‘height’ (nwoph- ‘high’), and kiluy 기리 ‘length’ (kil- 길- ‘long’) remained in use in the seventeenth and eighteenth centuries. Examples: khuy 키 (1748 Tongmun yuhae 1.18), kiluy 기리 (1690 Yŏgŏ yuhae 2.45). However, the reduction of the diphthong /uy/ to /i/ (as discussed above) caused these forms to change to khi 키, nwophi 노피, and kili 기리, and the result was that phonological contrasts were lost. Now the nominals were homophonous with the adverbs khi 키 ‘in a big way,’ nwophi 노피 ‘highly,’ kili 기리 ‘long, for a long time.’

There were two plural suffixes, -tulh -들 and -ney -네. These had developed from Middle Korean -tolh -들 ‘and others’ and -nay -내 ‘and other esteemed persons’ with much the same meaning and usage. However, Early Modern Korean -ney was no longer used as a marker of respect. Examples: [TOY-KWAN] ney.skuy 代官례의 ‘to the substitute officials’ (1676 Ch’ophae sinŏ 1.9), [CHYEM-KWAN] ney.skuy 僉官들례 ‘to the assembled officials’ (1676 Ch’ophae sinŏ 2.17).
6.4.1.2 Verbal suffixes

By Early Modern times, a few differences had emerged in the stems of causatives and passives. In Early Modern Korean, the suffixes -hi- and -wu- (which in Middle Korean had been -Wo- and -面目-) were used to derive causative stems. The rare causative suffix -o- had already become unproductive in Middle Korean, had nevertheless been used at that time with the l-stem verbs sal- ‘live’ and il- ‘happen, rise’ to derive salo- ‘to save someone’s life, let live’ and ilo- ‘to erect a building or tower.’ But in Early Modern Korean, ilo- completely disappeared, and salo- was used only in the fossilized forms salocap- ‘take prisoner’ and salocaphi- ‘be taken prisoner.’ In the fifteenth century, the causative form of the verb ho- ‘do’ had been hoy-. In the sixteenth century, we begin to see examples of this causative written as hoi-. This latter form is the one that was passed down into the seventeenth century. Examples: pyesol hoita 비술 흠이다 ‘place in a government post’ (1690 Yŏgŏ yuhae 1.12, 1776 Hanch’ŏng mun’gam 2.47), [CWOY]_lo ta myen_hoikwo 罪다 ‘have all crimes absolved’ (1704 P’alsea 11). This second passive form, hoi-, was itself replaced by siki- in the latter part of the Early Modern period. Examples: il siki.ita 일식이다 ‘give (someone) work to do’ (1776 Hanch’ŏng mun’gam 2.61), [POY-PAN] siki.ata 排班시키다 ‘had put in order’ (1776 Hanch’ŏng mun’gam 3.15).

The suffix -i- in some Middle Korean passive stems was replaced in Early Modern Korean by -hi-. For example, the Middle Korean passive of polW- ‘tread’ was pol.i- (< polWi- ), but in Early Modern Korean this passive became polphi-. Examples: polp.phye 과 피 ‘stepped on’ (1677 Pak T’ongsa onhae 3.2), polp.phita 과 피다 (1748 Tongmun yuhae 1.26).

6.4.1.3 Adjectival suffixes

The Middle Korean suffixes -loW/loWoy- and -toW/toWoy- had been used to derive adjectives from nouns. These continued into the Early Modern period, but the forms had changed to lwow- and twoy-. Examples: phyeylwopti 堅료디 ‘bothersome’ (< SK phyey 弊 ‘trouble, inconvenience’) (1677 Ch’ophae sin 5.22); haylwopti 해료디 ‘harmful’ (< SK hay 害 ‘harm, damage’) (1617 Tongguk sinsok samgang haengsil to, Hyojado 3:39); hywotwolwowum 효도로움 ‘filiality’ (< SK 효道 ‘filial piety’) (1617 Tongguk sinsok samgang haengsil to, Hyojado 3:39); cyensyengtoykwo 정성 되고 ‘sincere’ (< SK 精誠 ‘sincerity’) (1617 Tongguk sinsok samgang haengsil to, Hyojado 3:39); kulustoyn 그릇된 ‘mistaken’ (< kulus ‘mistake’) (1776 Hanch’ŏng mun’gam 8.49). In the eighteenth century the suffix -sulew- ‘like’ made its appearance. Examples: wensywusuleun nwom 원슈스레운 늘 ‘a fellow like an enemy’ (1775 Yŏgŏ yuhae 20); elwunsulewon chyey 어룬스러운 채 ‘on the pretext of being like an adult’ (1775 Yŏgŏ yuhae
The Middle Korean suffix -Wo/Wu- converted verb stems into adjective stems, but by the Early Modern period it was no longer productive. In its stead, a process that came to be used in the early years of the Early Modern period combined the adverbial forms of stems such as kisk- ‘rejoice,’ twuli- ‘fear,’ ceh- ‘be afraid of,’ and muy- ‘hate’ with ho- ‘do.’ Then, in the latter part of the period, the adverbial forms of the fossilized stems muyw- ‘hateful’ (< muyW- ) and cephu- ‘scary’ were also combined with ho- ‘do,’ creating doublets. Examples: kiske_hota 깃거하다 ‘is happy’ (1776 Hanch’ŏng mun’gam 6.56); muyye_hota 의여하다 ‘is hateful’ (1776 Hanch’ŏng mun’gam 7.49); twulye_hoye 두려하다 ‘is frightening’ (1797 Oryun haengsil to 3.21); muywe_hal_soy 의위흘식 ‘is hateful’ (1797 Oryun haengsil to 2.6); cephe_hota 져혀하다 ‘is hateful’ (1776 Hanch’ŏng mun’gam 7.7). In the language today, this Early Modern compounding process has become the most common way of making adjectivals out of verbs.

6.4.1.4 Adverbs
The fifteenth-century adverbs mwomzwo 몸소 ‘personally, by oneself’ and swonzwo 손소 ‘personally, with one’s own hands’ (which had been derived from the nouns mwom ‘body’ and swon ‘hand’) appear variously in Early Modern texts as swoncwo, swonswo, mwomcwo, and mwomswo. All of these variants can be seen in the 1617 text, Tongguk sinsok samgang haengsil to. Examples: swoncwo 손조 (Hyojado 2.38), swonswo 손소 (Hyojado 2.43), mwomcwo 몸조 (Ch’ungsindo 1.36), mwomswo 몸소 (Yŏllyŏdo 1.42; Hyojado 1.90). These adverbial doublets continued in existence at least until the eighteenth century.

6.4.2 Nouns and noun phrases
The final h’s of Middle Korean nouns were preserved into the early part of the Early Modern period, but were lost by the latter part of the period. A special case was the Middle Korean noun stah ᄒ$stmt ‘earth,’ which was replaced by stang ᄒ$stmt (1617 Tongguk sinsok samgang haengsil to, Hyojado 1.1, Yŏllyŏdo 5.27). Another, parallel case was the noun cip.wuh 집풍 ‘roof [lit., house-top]’ (1481 Hyojado 2.38), which became cipwung 지붕.

The shape alternations of nouns such as namwo 나모 ‘wood, tree’ were regularized. The tendency toward the leveling of these alternations had begun in the fifteenth century. In the 1481 Tusi ᄆтрадиционн (8.44), for example, we find the phrase namo_non 나모논 instead of the earlier nam.k on 남근 (1447 Yongbi ᄆبرشلون ka 2), and in the same text we find pwulmu_lul 불무를
‘bellows’ (6.24), instead of pwulm.k ul 풀굼. However, remnants of the old alternations remained, for up until the latter part of the Early Modern period, the words for ‘wood’ and ‘hole’ occasionally appeared in phrases as the forms nang.k_i 낭기 and nang.k ul 낭귤, and kwung.k ul 궁귤 and kwung.k uy 궁기. (These forms are still found today in certain regional dialects.) But by the end of the period, ‘wood’ was consistently being written as namwo 나모, and ‘hole’ as kwumeng 구멍. Similar things can be said about nouns such as nwolo 노록 ‘deer’ and azo 아속 ‘younger brother.’ Middle-Korean type alternations for these words, too, could be seen as late as the eighteenth century. Examples: nwol.l_oy kwoki 놀고기 ‘deer meat’ (1690 Yŏgŏ yuhae 1.50), nwol.l uy saski 놀삿기 ‘deer offspring’ (1748 Tongmun yuhae 2.39).

6.4.2.1 Particles
A noteworthy change in the particle system was the form of the subject marker. In the fifteenth century, the only form marking subjects had been i, and the familiar suppletive alternant ka remained completely unattested until the sixteenth century, when it made its first, fleeting appearance. But in texts of the seventeenth century the existence of ka is beyond doubt. It is seen, for example, in the 1676 textbook Ch’ŏphae sinŏ; e.g., poy_ka wol ke.s ini 가올거시니 ‘since the ship is coming . . .’ (1.8), [TWONG-LOY]_ka ywosoi phyen.thi ani hositeni 東萊가 요소이 편티 아니하시는니 ‘since Tongnae has been in an unfavorable situation these days . . .’ (1.36). And it is also found in the 1698 manual for making gunpowder, Sinjŏn chach’obang ɒnhae: telawon coy_ka ta chetikwo 더라온 가다 처디고 ‘dirty sediment all sinks under’ (9), moyngnyel_khi_lol hay_honun thuy_ka ta swosa wolla 해는 티가 다 소사올라 ‘particles that harm the intensity all float to the top’ (12). What is noteworthy in every one of these examples, however, is that the nouns to which ka attaches (poy ‘ship,’ TWONG-LOY ‘Tongnae,’ coy ‘sediment,’ and thuy ‘particles’) all end in -y. The fact that ka only appeared in this very limited phonological environment shows that the seventeenth century marked the beginning of the particle’s development. After that, the use of ka gradually spread to positions following nouns ending in vowels, where it is found in the language today. But this development is not well documented in the textual record. Even though ka was probably idiomatic and common in the spoken language in the eighteenth and nineteenth centuries, it was still not used in the written language. The Contemporary Korean usage of the particle was first reported by foreign missionaries at the end of the nineteenth century.

An honorific subject marker was formed by combining the particle sye ‘from, at’ with the dative skey (mentioned below). Examples: [CUNG-CWO]/_skeysye nasimyen 曾祖父에 나시면 ‘if the great-grandparents go
out...’ (1632 Karye ŏnhae 2.2); [SO-SIN]_skuysye_two chwoychwok_hosye 使臣의서도 최촉호서 ‘since the envoy also pressed’ (1676 Ch’ŏphae sinŏ 5.16). The honorific subject marker in standard Korean today is believed to be a reflex of this form. On the other hand, in the 1676 Ch’ŏphae sinŏ the honorific subject marker also appears as kyesye and kyeysye; moreover, in personal letters and in the nineteenth-century memoir Hanjungnok (‘Records Written in Idleness’) the marker is recorded as kyewosye and kyeywosye. Examples: acoma-nim_kyewosye yele tol chywocyen_hoopsiten kusthoy 아즌마님겨오서 여러 돌 총전흡음시던 ‘after the lady had toiled for several months...’ (Sinhan ch’ŏp ‘A Collection of Royal Letters’); syen.in_kyewosye kyengkyey_howositoy, syen.in_kyeywosye skwum_ey pwowa kyeysiwoteni 선인겨오서 경계호시티, 선인겨오서 쓰에 보와게시오디니 ‘the immortal [deceased father] has warned, the immortal [father] has appeared in a dream’ (Hanjungnok). In spite of their resemblance in both form and function to skeysye, these various latter forms appear to be derivations of the honorific verb of existence kyeysi-.

By the Early Modern period, the only particle that functioned to mark genitives was uy. By then, the Middle Korean genitive particle s (the so-called “medial s” 사이시옷) had ceased to be syntactically productive as a genitive marker. It was now realized almost exclusively between the elements of compound nouns.

The system for marking datives was greatly simplified. The dative marker for plain animates (including people) was unified as uykey, and the honorific dative as skey. Examples: [CWO CWO]_uykey 曼操의계 ‘to [the Chinese general] Cao Cao’ (1704 Samyŏk ch’ŏnggae 6.19); [KA-LWO]_skey 家老 ‘to the family elders’ (1632 Karye ŏnhae 2.2); eme-nim_skey 어머님께 ‘to the mother.’ In Middle Korean, the monosyllabic key – which was a contraction of ku ngekuy and thus meant ‘(in/at/to) that place’ – had attached directly to verbal nouns, but that usage was no longer seen in Early Modern Korean. There are examples, however, of the syllable attached directly to the noun mol ‘horse’: mol_key nolini 물게 냄리니 ‘getting down from the horse, and...’ (1704 Samyŏk ch’ŏnggae 1.1); hon [KWUN-SO]_lol ssowa mol_key steluchikwo 軍士돌 쓰와 몸계 써르치고 ‘shooting a soldier and knocking him from his horse...’ (1704 Ch’ŏngŏ Nogŏltae 2.28).

The comitative particle (meaning ‘with, and, accompanying’) became phonologically fixed as wa 와 after a vowel, and kwa 과 after a consonant. In the sixteenth century, kwa had also appeared after a -y, and that continued to be the case in the seventeenth century. Examples: maktay_kwa 막태와 ‘a stick and...’ (1677 Pak T’ongsa ŏnhae 2.28); aloy_kwa 아리과 ‘underneath and...’ (1670 Nogŏltae ŏnhae 1.35). But the comitative particle soon came to be realized only as wa in that environment.
The vocative particle ha had been used as an honorific in Middle Korean, and people lower in rank had always used it when addressing a superior. But the particle ceased to be used at all in Early Modern Korean.

The postposition twokwon (from Middle Korean twukwo~twukwon) was used to express comparisons. Example: *amu il_twokwon [TAY-KYENG]_ilwosongita* 아무 일도곤 대慶이로송이다 ‘compared to anything at all, it is very fortunate’ (1676 Ch’ŏphae sinŏ 8.13). However, in the eighteenth century a new particle pwotaka appeared that gradually replaced twokwon, and by the nineteenth century it was the only particle used to express comparisons. Examples of this particle pwotaka can be seen in the royal edicts issued during the reign of Yŏngjo (r. 1724–76), as well as in the 1783 text *Chahyul chŏngch’ik*. Examples: *sywomin pwotaka pilwok kancyel_hwom_i isina* 쇼민보다가 비록 간절홈이 이시나 ‘even if they have needs more pressing than the people’ (Royal Edict on Abstention from Wine 醫製戒酒綸音); *i ahuy-tul_kwa alin kes-tul_i hwok tonnimye pilkwo hwok nayye polimon kes_i pyeng_tun kes_pwotaka_tewuk kinkup_honi* 이 아희들과 어린 것들이 혹 돼니며 빌고 혹 내여 빌리는 거시 병든 것보다가 더욱 더욱 긴급ᄒ니 ‘that these children and young people either go around begging or are cast out is more urgent than becoming sick’ (1783 Chahyul chŏngch’ik 2).

This postposition pwotaka was derived from a conjunctive form of the verb pwo- ‘see’ using the mood marker -taka (which is called the “transferentive” in Martin 1992); even today pwotaka is used in some dialects. The standard Seoul form is of course pwota.

The postpositions used as emphatic markers in Early Modern Korean were ya and kwos. The various other emphatic markers found in Middle Korean disappeared. The fifteenth-century particle za was replaced by ya around the end of the sixteenth century; the particle kwos came to be used mostly with negatives in the Early Modern period. Examples: *na_kwos epsomyen* 나곳 엽수면 ‘when I in particular am not there’ (the memoir *Hanjungnok*), *twu [PWUN]_kwos animyen* 두 분곳 아니면 ‘if it isn’t just those two (people)’ (1728 Ch’ŏnggu yŏngŏn).

6.4.2.2 Pronouns

In Korean today, ‘I’ and ‘you’ followed by the subject marker are realized as nay_ka and ney_ka. These forms, which came into use in the Early Modern period, contain two occurrences of the subject marker. The -y in the Middle Korean nominative forms nay ‘I’ and ney ‘you’ was already a form of the subject particle i, but that was added a second occurrence of the subject particle, the suppletive alternant ka. The form nay_ka 내가 was first recorded at the end of the eighteenth century, in the *Ringo taihō* (隣語大方), a Korean–Japanese textbook believed to have been compiled by interpreters on Tsushima Island.
The reflexive pronoun *cokya* 값가 ‘himself, herself’ (equivalent to Contemporary Korean *caki*) had been used in Middle Korean as a third-person honorific. In Early Modern Korean, the pronoun with its honorific meaning intact is believed to have been preserved as *coka* in the speech of the palace. Thus, in the 1613 diary *Kyech’uk ilgi* written by an anonymous court lady, we find the sentence, *Kwongcywu coka non muso il’ kwo, kuniyang kwongcywuy_la hoyela 공주 자가는 므스 일고, 그날 공 jeg라 희여라 ‘The Princess Herself? What’s with that? Just call [me] Princess.’

In Middle Korean, the interrogative pronoun *nwu* ‘who’ combined directly with the inflectional interrogative ending -*kwo* to form *nwukwo* 누고 or *nwukwu* 누구. In the Early Modern period, however, the forms fused together and became lexicalized. As a result, when Early Modern authors formed questions, they added another occurrence of the interrogative ending at the end of the sentence. Examples: *Nwukwu_non em’ uy wolap’ uykey nan cosik_imye nwukwu_non ap’ uy nwu’ uykey nan cosik ’kwo? 누구는 어의 오라의께 난 조식이며 누구는 아의 누의께 난 조식고 ‘Who is the child born to the mother’s older brother, and who is the child born to the father’s sister?’ (1670 *NogoldtAE onhAE 1.14); I pes_un nwukwo’ kwo? 이 벗은 누고고 ‘Who is this friend?’ (1670 *NogoldtAE onhAE 2.5).

Two words meaning ‘what,’ *mues* and *muses*, coexisted in the seventeenth century. Examples: *muse.s_ul* 무서슬, *muse.s_i* 무서시 (1677 *Pak Tongsa onhAE 1.56), *mue.s_oy* 무어시 (1617 *Tongguk sinsok samgang haengsil to, Ch’ungsindo 1.75), *mues_holiwo* 무엇리오 ‘do what?’ (1670 *NogoldtAE onhAE 1.24). But actually, both forms had already coexisted at the end of the sixteenth century, as could be seen in the *Sohak onhAE*, which was published in 1588; for example, *muse.s_ul* 무서슬 (6.123), *mues_sul* 무어슬 (5.99). In the eighteenth century the form of the interrogative pronoun was unified as *mwues 무엇*, a word attested, for example, in the Manchu glossaries *Tongmun yuhae* (2.47) and *Hanch’ong mun’gam* (6.36).

The interrogative *enu* ‘which’ functioned as a pronoun in Middle Korean, which meant that, like other substantives, it could be followed by case particles. In Early Modern Korean, however, it lost this function and came to be used only as a modifying prenoun, just as it is in Contemporary Korean today.

6.4.3 Conjugations

The loss of the voiced spirants *W* and *z* altered the Middle Korean inflecting stems ending in those consonants. The change was not great in the case of stems ending in -*W*-; since that consonant simply weakened into the semi-vowel -*w*-. However, the change was greater in the case of -*z*-, because that consonant disappeared completely. For example, in Middle Korean the stem
'make' had the morphophonemic alternation *ciz-* (with *cis-* appearing before vowels and voiced spirants, and *cis-* before obstruents). After the change, the alternation became *ci-* (without *ciz-* appearing before vowels, and *cis-* before non-vowel obstruents). The final cluster *-sk-* was reduced to *-kk-*.

Some irregular conjugations fell together. When the spirant *G* was lost, stems such as *talo-* 'is different' fell together with "*l-doubling" stems such as *hulu-* 'flow.' This stem had had the alternation *talo- ~ talG-*, and */G/* was replaced in this alternation by */l/*, perhaps by analogy with the "l-doubling" stems. Even more significant were the changes that took place in stems such as *pozo-* 'break,' *kuzu-* 'drag,' *pizu-* 'decorate,' and *swuzu-* 'is boisterous.' These particular stems had contained both *z* and *G* in Middle Korean, and after the spirants disappeared, the stems underwent a variety of changes. The stem *pozo-* 'break' became *pasu-*; and *kuzu-* 'drag' became *kuu-*.

In Middle Korean, the stem *nye-* 'travel about' appeared occasionally as *ney-*, but by Early Modern times the stem appeared only in the latter form. The honorific existential *kyesi-* 'is' became *kyesi-* in the same time frame. In Middle Korean, the (non-honorific) existential verb
alternated in form between *isi*-, *is*-, and *si*-, but by the Early Modern period this variation had disappeared. By that time, the verb was realized only as *is*-

Some inflectional forms were affected by changes in the language’s morphophonemic alternations, two of which deserve special mention. First, the alternation of *k* with *G* disappeared. As we have pointed out, the Middle Korean voiced velar fricative /G/ replaced /k/ in certain environments; for example, *mul* ‘water’ plus the comitative particle *kwa* was transcribed as *mul_Gwa* 몰와, and the verb stem *al*- ‘know’ plus the gerund *kwo* became *alGwo* 알오. But by Early Modern times /G/ had been lost, and almost everywhere the stop *k* was restored. Now the only trace left of the alternation was after the copula. In Middle Korean the gerund form of the copula had been *iGwo* 이오, but in Early Modern Korean it became *iywo* 이요. Example: *ku cwoy twul.h_iywo* 그 죄 두히요 ‘the transgressions are two, and . . .’ (1704 *Samyŏk ch’onghae* 2.4). The second morphophonemic change affecting inflection was the weakening of the rules of vowel harmony. As a result of this change, the concord of suffixes with stems became in essence no different from that of today’s standard language. Almost the only vowel harmony to be found in suffixes – then or now – is the alternation seen in the infinitive form -*ale*.

The third change was in the Middle Korean rule governing the alternation, under certain conditions, of /t/ with /l/. A typical example was in the inflection of the copula.

6.4.3.1 Prefinal endings

A number of salient changes took place in the prefinal endings. For one thing, the volitive -*wo/wu*-, a puzzling morpheme known only from the Middle Korean corpus, was no longer productive in Early Modern Korean. For another, the Middle Korean honorific system, which had made use of three separate prefinal endings (the honorific -(o/u)*si*- , the deferential -(z)*oW*- , and the politeness marker -(n)*gi*- ) was reduced in Early Modern Korean to a simpler system indicating only honorific status and politeness. This simplification took place when the deferential marker ceased to be used independently and became part of the marking of general politeness. Now, a polite discourse style was indicated not simply by the single prefinal ending -(n)*gi*- , but rather by a more complex ending combining the Middle Korean deferential with the politeness marker. Thus, the Early Modern polite endings -(o)pnoyng.*ita* -(읍)이다, -(o)pnoyita -(읍)이이다, -(o)pnoita -(읍)에이다 all go back to the Middle Korean form -(z)*opno*ngi*ita* -(수)이다. Many examples of these endings can be found in the 1676 Japanese textbook *Ch’ŏphae sinŏ*. This combination of the erstwhile deferential with the politeness marker is the etymological source of -(u)p*ntita* in today’s Seoul standard.
Tense and aspect During the Early Modern period, the Middle Korean tense and aspect system gradually developed into the system found in the language today. The first of the changes was the development of a new past marker, -as/es-. In the 1704 Manchu textbook Samyŏk ch’ŏnghae, this marker was used for translating the Manchu past tense; e.g., mullichyesta 둘리쳤다 ‘defeated’ (2.5), pwonayyesta 보내엿다 ‘sent’ (2.9). The new form was created by combining the infinitive -a/e with the stem of the verb of existence is-. The suffix -keyss-, which marks future tense in Contemporary Korean, must undoubtedly have also developed in the Early Modern period, but there are no clear records of it. Like the subject marker ka, -keyss- rarely appeared in written records until missionaries noticed it in the late nineteenth century. The marker is thought to have been formed by combining the adverbial suffix -key with the verb of existence -is, but documentary evidence supporting this etymology is lacking. In Middle Korean, the processive marker -no- combined with the declarative ending -ta in a straightforward way to form the ending -nota. But by the Early Modern period, this ending had changed into -nta after a stem ending in a vowel, and into -nunta after a stem ending in a consonant. Examples: kanta hoya 간다 희여 ‘saying [he] is going’ (1704 Samyŏk ch’ŏnghae 2.9); toli lol nwosnonta hononila 톨리를 놔뒀다 희노니라 ‘[he] says that [they] are building a bridge’ (1677 Pak T’ongsa ŏnhae 2.33). Of these two variants, -nta also appeared in some sixteenth-century texts, but -nunta first made its appearance in the seventeenth century.

Emotives Of the various emotives used in Middle Korean, only -two continued to be used in Early Modern Korean. The prefinal endings -twos, -s-, -kwa-, and -kwas- were no longer productive.

6.4.3.2 Final endings
Modifiers and nominalizers The Middle Korean endings used to transform predicates into noun modifiers and nominals remained essentially unchanged, at least in function. However, changes did take place in their forms and distributions. There were four such endings: (1) -(o/u)n, (2) -(o/u)lq, (3) -(o/u)m, and (4) -ki. (1) In Middle Korean, the modifier ending -(o/u)n, combined with (among other prefinal endings) -no-, -te-, -ke-, and -li- to form the compound endings -non, -ten, -ken, and -lin. Of these four endings, only the first two survived into Early Modern Korean, as -nun and -ten. The other two endings disappeared from the textual record. (2) The Middle Korean ending -lilq, which combined the future marker -li- with -(o/u)lq, also disappeared from the record. (3) In Middle Korean, -(o/u)m was preceded by the volitive -wo/wu-, but in the Early Modern period, when the volitive fell into disuse, -(o/u)m came to
be used by itself to nominalize predicates. As a result, the distinction between
nominalized predicates and derived nominals was lost. (See section 6.4.1.1
“Nominal suffixes,” above.) Another noteworthy change in the Early Modern
period was that in nominalizations of stems ending in /l/, the linking, epen-
thetic vowel no longer appeared. Examples: kolm ‘replacement,’ tulm ‘entrance.’ Contemporary Korean forms such as alm ‘knowledge’ and salm ‘life’ represent traces of this Early Modern structure. (4) Also, in the Early
Modern period the use of -ki as a nominalizing suffix became extremely
common.

Conjunctive endings Conjunctive endings became simplified in the Early
Modern period. There was, first of all, a simplification of the rules with
which they combined with prefinal endings, postpositions, focus markers,
and the like; and, in addition, more than a few Middle Korean endings were
lost. For example, in Middle Korean the endings of coordinate conjunction
-kwo, -(o/umye, and -a/e combined with postpositions and focus markers
to form a variety of endings such as -kwen, -kwok, -kwom, -(o/umyesye,
-(o/u)myeng, -ak, and -am, but by Early Modern times all of these endings
disappeared from use except -(o/umyesye. Then, in the latter part of the
Early Modern era, this form -(o/umyesye developed into -(u)myense ‘while
[do]ing...’ In much the same meaning and usage, (o/umye had, in Middle
Korean, combined with the postposition -ng. The only occurrence of this
postposition then was in the ending -(o/u)myeng, and in Early Modern
Korean it was found only in the idiomatic expression womyeng kamyeng
‘coming and going.’ Among the endings that were completely lost were
-tiwos and -tiWi > -tiwuy.

Other significant changes in the conjunctive endings were as follows: first,
the Middle Korean ending -wo/wutoy, which was composed of the volitive
-wo/wu- plus the concessive -toy, became -twoy in Early Modern Korean.
This change was already under way during the latter part of the Middle
Korean period. Examples: hon pwus sik stutwoy 홍봇식 쓰되 ‘even though
one moxa stick each is used...’ (1542 Punmun onyök ihae pang 19); ahoy_lol
kol.očitwoy 아هي佬 좃치되 ‘even though one teaches the children...’
(1588 Sohak ŏnhae 5.2); [MWUN] phwo_lol moytwoy 紋포佬 미되 ‘even
though [he] tied on heraldic marking...’ (1632 Karye ŏnhae 8). Then too,
the less common concessive ending -kenmalon became -kenmanon. This
change was also seen in the latter part of the Middle Korean period; e.g.,
hakenmanon 하건마논 ‘even though it is a lot...’ (1588 Sohak ŏnhae
Introduction: 2). In the Early Modern period, examples of the following form
also appeared: mal_two hotenimanon 말도 혀더니마논 ‘though he had also
spoken...’ (1676 Ch’ŏphae sinŏ 9.12). The rare desiderative -kwatye became
-kwatya in the sixteenth century (e.g., alkwatya hoya 알과다 хоч야 ‘wanting to
know’ (1588 Sohak ŏnhae Explanatory Notes); that form was also used in Early Modern Korean, but through the process of palatalization, it soon became -kwacya. Examples: [MI-HWOK] ul phulusikwatyaya 迷惑을 포르시고하다 ‘wanting to resolve the confusion…’ (1676 Ch’ŏphae sinŏ 1.30); moom ul cwotkwatyaya 운영을 좇고하다 ‘wanting to follow the heart…’ (1704 Samyŏk ch’ŏnghae 10.3); wus kwacya hoki_lul wonkaci_lwo hwotoy 웃고자 희기를 온가지로 호디 ‘though wanting in all ways to laugh…’ (1772 Sipku saryak ŏnhae 1.23). The ending -(으)lq solwok (which was ancestral to -(으)lq swulwok ‘the more . . . the more . . .’), was rarely used in Middle Korean, but coming into the Early Modern period its usage eclipsed that of the once more common -tigwos. Its form then changed to -(으)lq swolok. Examples can be found in Kim Sujang’s 1763 collection of sijo, Haedong kayo (‘Songs from East of the Sea’). On the other hand, the Middle Korean ending -tolwok ‘to the point where, until’ continued in use in Early Modern Korean in the slightly changed form -twolwok.

The postmodifier cay (< Middle Korean cahi) attached to the modifier form of a verb or adjective to show continuity of the action or state. Example: hwantwo chon cay woloni 환도 재오니 ‘having strapped on his sword, he went up [to the emperor]’ (1704 Samyŏk ch’ŏnghae 1.13). This morpheme was apparently to be identified with the suffix -cahi/chahi used to form ordinals from cardinal numerals.

Finite verb endings

Declaratives The rare form -lwa made its appearance as a declarative ending in the Early Modern period. Examples: [KWO-LYE WANG-KYENG] ulwosye wo.lwa 高麗王京으로서 오하 ‘[he] came from the Koryŏ royal capital’ (1670 Nogŏltae ŏnhae 1.1); pwule kwen_hola wo.lwa 부러 권하라 오하 ‘[he] came specifically to admonish’ (1704 Samyŏk ch’ŏnghae 1.3). Meanwhile, the usual declarative ending -ta underwent changes; Middle Korean forms such as -te.ngita, -no.ngita, -nwo.ngita, -nwoswo.ngita, and -twoswo.ngita, were generally replaced by shorter forms such as -tey, -noy, -nwoy, -nwoswoy, and -twoswoy (which, following the copula, was realized as -lwoswoy), the ending -ta having been completely elided. Examples: [MWUN-AN] hoopsityey 問안해 오시네 ‘[he] asked about [his] well-being’ (1676 Ch’ŏphae sinŏ 1.22); [MWUN] s koci wassopnoy 이날날이 웃소시 ‘I came as far as the door’ (ibid. 1.11); isil-tos_hona nihuopnawoswoy 이실답하다 나리움노쇠 ‘[he] said [he] seemed to be there’ (ibid. 5.14); ewa alomtai woopsitawoswoy 어와 아름다이 오름시도쇠 ‘Ah! It’s wonderful that you’ve come’ (ibid. 1.2); ewa caney_non wuun salom_lwoswoy 어와 자네는 우은 사름이로쇠 ‘Ah! You are an amusing person’ (ibid. 9.19).

Imperatives and propositives The Middle Korean deferential imperative ending -(으)sywosye disappeared and was replaced by -swo. Examples: yekuy
Early Modern Korean

woloopswowo 여고 오르 올소 ‘please come here!’ (1676 Ch’öphae sinô 1.2); na honon_taylwo hoso 노 흔들대로 흔소 ‘please do as I say!’ (ibid. 7.7); kwotitustin maopswowo 고디 드는데 마음소 ‘please do not take it at face value’ (ibid. 9.12). A first-person plural propositive -opsay (‘let’s…’) also made its appearance around this time. (This form is still the polite propositive used in some dialects today.) The element -op- was a reflex of the deferential -zoW-, and -say was from the Middle Korean deferential propositive sa.ngita with the declarative ending -ta elided. Example: [SYE-KYEY]_lol naysyenon pwo

Interrogatives Most of the interrogative endings used in Middle Korean continued to be used in Early Modern Korean. However, the distinction between yes-or-no questions and question-word questions gradually disappeared. In addition, the endings -nye and -lye, which were composed of the modifier endings -(o/u)n and -(o/u)lq plus the postmodifier interrogative -ye, changed in form to -nya and -lya. This change began in the late Middle Korean period, in the sixteenth century, and became firmly established in the seventeenth. Examples: ani_hwo.m_i ka_ho_anihopi 가향나 ‘is it better not to do it?’ (1577 Yaun chagy 83); pilwok mool.h_i ta tonniyla 비록 말을혀 다들이라 ‘if a village, should I necessarily go to them all?’ (1588 Sohak ŏnhae 3.5); [POYK-HWO]_i ta etoy cwuk.e kanya 百戶 ㅣ 다 어디 죽어 가나 ‘where will all the paekho [military officers] die?’ (1677 Pak T’ongsa ŏnhae 2.5); polam masilya 봉란 마시라 ‘does one drink the wind?’ (1670 Nogŏltae ŏnhae 1.18). The endings -i.ston and -i.stonye, which were used in Middle Korean for rhetorical questions, could no longer be found by the Early Modern period.

Exclamations The sixteenth-century ending -kwona became widespread in Early Modern Korean, and the new endings -kwoya and -kwoyya also came into use. Examples: twokpyel_i mwolunonkwona 독별이 모르고나 ‘so [you] don’t particularly know it!’ (1670 Nogŏltae ŏnhae 1.24); khwo naynon mol_ilwokwona 코내는 물이로고나 ‘so it’s a horse that’s blowing its nose!’ (ibid. 1.17); nikun_tos hokwoyya 니그듯 훔파야 ‘[he] seems to have become accustomed to it!’ (ibid. 1.31); i hwal ul ney stwo kantaylwo hun-namulonkwoya 이활을 때 또 간대로 혼나므라는데야 ‘how stupidly you again find fault with this bow!’ (ibid. 2.28). The ending -twota continued in use, though it was no longer the most common exclamatory marker; in an unexplained phonological development, the ending was written -stwota (indicating reinforcement of the initial consonant) following the modifier ending -nun.
The ending -(o/u)lssye became -(o/u)lssya. Examples: [SO-SI]_lol cwocha nwononstwota 四時렇 조차 노는또다 ‘they are enjoying themselves according to the four seasons!’ (1677 Pak T’ongsa ḏ瑙ae 1.18); elin ahoy eyespulsya 어린 아미 에예블사는 ‘how pitiful are the young children!’ (ibid. 3.43).

6.4.4 Syntax

By the Early Modern period, the syntax of the language had become virtually identical to that of Contemporary Korean. How the language had changed during the Middle Korean stage is not always easy to document, however. As has already been noted, the compositional style of most Middle Korean texts was that of translation; then, too, the de facto written standard of the period served to mask the process of change. In this section we will simply note a few of the more salient syntactic differences between Middle Korean and Early Modern Korean.

In Early Modern Korean, the postmodifier nouns to and so were no longer used productively. Traces of these structural elements, which corresponded in meaning and usage roughly to that of Contemporary Korean kes ‘the fact/one that . . . ’, still remained in various constructions, but these had become lexically frozen forms.

Nominalizations formed with the nominalizer -ki became much more common. As a result, the use of the nominalizer -(o/u)m became that much less productive. A few occurrences of -ki are found in Middle Korean texts, but they are rare; -ki nominalizations, in fact, can be considered one of the characterizing features of Early Modern syntax. Also, while in Middle Korean the endings -(o/u)n and -(o/u)lq occasionally functioned as nominalizers, their Early Modern reflexes were used without exception as modifier endings, just as they are today.

A careful examination of Middle Korean sentences reveals that most were nominal sentences, at least etymologically. That is especially true of interrogatives, which in Middle Korean clearly had the structure of nominal-head sentences. However, Early Modern Korean showed a greater tendency toward sentences with verbal, adjective, or copular heads. In Middle Korean, when the predicate of a question was a noun, an interrogative ending -ka or -kwo was directly affixed to that noun. But in Early Modern Korean, that was not nearly so often the case. For example, a typical Middle Korean sentence is the question no.m_on nwukwu 누 몸 누 구 ‘Who [is] that person?’ (1472 Mongsan ḏ瑙ang pŏbŏ yangnok ḏ瑙ae 20). Here, in the form nwukwu, the interrogative ending -kwu was directly attached and fused to the noun nwu ‘who.’ This kind of structure was also possible in Early Modern Korean, as is shown in the sentence i pes_un nwukwo_kwo 이 벗은 누고고 ‘Who [is] this friend?’ (1670 Nogŏltae ḏ瑙ae 2.5). But such questions more typically took a form like that
of the sentence *ney nwu.yn_ta* 네 된다 ‘Who are you?’ (1704 *Samyŏk ch’onghae* 8.1), where the noun *nwu* ‘who’ is followed by the copular construction *inta*.

A feature Early Modern Korean shared with Middle Korean is the complexity of the sentences recorded in the textual corpus. If we set aside vernacular versions of Chinese texts because of questions about syntactic naturalness, we see that native genres, especially the vernacular novel, showed a tendency toward extremely complex sentences consisting of long concatenations of linked clauses. This convoluted style continued to be used throughout the period, and a significant simplification of the written sentence first came about only in the Contemporary Korean era.

### 6.5 Vocabulary

A salient change in the Korean language between the Middle and Early Modern periods, as well as during the Early Modern period itself, was the loss of native vocabulary. Much of this change resulted from the continuing replacement of native words with Sino-Korean equivalents. For example, instead of *mwoy* ‘mountain,’ *kolom* ‘river, lake,’ *azom* ‘relatives,’ and *wolay* ‘gate,’ Koreans now used the words *san* (山), *kang* (江), *hwosywu* (湖水), *chinchyek* (親戚), and *mwun* (門) instead. The use of Sino-Korean for such basic terms showed the extent to which Chinese vocabulary had been penetrating the Korean language from ancient times on. However, many other words were not crowded out by the cachet of Chinese vocabulary, but simply fell into disuse for reasons that are as yet unclear. Such lost vocabulary included inflecting forms like *iW* ‘is bewildered,’ *woy* ‘bore,’ *woypo* ‘carve’ (a compound of *woy* ‘bore’ plus *pho* ‘dig’), and *hyek* ‘is small.’ Such words are of course exotic to Koreans today, but Koreans in the seventeenth and eighteenth centuries also found them unfamiliar and confusing. We know that to be true because, for example, the word *iptesini* 업더신타 ‘was bewildered,’ as recorded in the first, 1447 edition of the *Yongbi öch’ön ka* (stanza 19), was corrected in the 1659 reprint to read *eptesini* 업더신타 ‘was not there.’ Similarly, the word *hyekun* 히근 ‘small’ in stanza 82 of the first edition was emended to read *cyekun* 자근 ‘id.’ in the later edition. Such “corrections” are clear indications that the words were by then obsolete. Similarly, the edition of the Sino-Korean glossary *Hunmong chahoe* published before the Imjin Wars contains the character gloss [*KHUK* woyphol kak 刻 외돌 각 ‘[the character pronounced] kak [that means] “carve”’ (1.1). But in the edition published a few short years later, in 1613, the entry was changed to read [*KAK* sakil kok 刻 사길 국. Clearly, the seventeenth-century editors no longer understood the verb *woypo* - and felt the need to change the entry to make it comprehensible.
Other words changed in meaning. For example, the adjective *eyespu-* meant ‘pitiable’ in Middle Korean, but in Early Modern Korean, ‘pretty.’ Semantic drift can also be seen in the words *eli-* which in Middle Korean meant ‘foolish,’ and *cyem-* which meant ‘is young’ when referring to an infant or small child. But by Early Modern times, *eli-* had taken over the meaning of ‘is small, young,’ while *cyem-* had come to refer only to someone a bit older who was ‘youthful’ (in one’s teens or twenties). This meaning change of *eli-* can be verified from the end of the sixteenth century, as, for example, in this passage taken from the 1588 *Sohak ŏnhae: elin ahuy* 어린 아회 ‘infant child’ (4.16). Another case of drift is that of the verb *solang_ho-* which in Middle Korean meant both ‘think of’ and ‘love,’ but after that period was exclusively used to mean ‘love.’ It appears that ‘think of’ was the original meaning, and in the fifteenth century the semantic range of the word was extended to include ‘love.’ It was also in the fifteenth century that the synonym *toz-* ‘love’ and near-synonym *kwoy-* ‘esteem, favor’ in turn became obsolete. The Middle Korean noun *cus* meant ‘appearance’ or ‘form,’ but its meaning later became vulgarized, so that the word’s present-day reflex *cis* ‘act’ or ‘gesture’ refers mainly to an act that is vulgar, laughable, or impolite.

The Explanations and Examples section of the 1446 *Hunmin ch’ŏngǔm haerye* contains the definition *him [WUY KUN]* 힘為筋 ‘[the word] him is “sinew, muscle.”’ In later ages, however, the word *him* came to refer only to the abstract concept of ‘strength,’ preserving but a part of the original meaning. Middle Korean *pit* combined the meanings ‘price, value’ and ‘debt,’ but the former meaning was lost in the Early Modern period. The words *ssota* and *pit-ssota* were both originally used to express the meaning ‘to have [so much] value.’ But Contemporary Korean shows that a semantic opposition later developed between the two. Now, *pissata* (< *pit-ssota*) has come to mean ‘to be expensive,’ i.e., something has a high value, while *ssata* (< *ssota*) means only ‘cheap,’ i.e., that something has a low value. (Note that the present-day idiom *ku salam_un may mac.a ssata* ‘that person deserves to be whipped’ preserves the earlier meaning of *ssata.*) In the seventeenth and eighteenth centuries, the expression *kap-ssota* meant that the price (*kaps*) of something was appropriate; that meaning is attested, e.g., in the 1748 Manchu glossary *Tongmun yuhae* (2.26). Thus, the word *ssata* appears to have developed the meaning ‘cheap’ sometime after that, probably in the nineteenth century. (In Middle Korean, by the way, ‘cheap’ was expressed as *pit-tita*, literally, ‘value falls.’)

*Sino-Korean changed, too. In Early Modern Korean, many words of Sino-Korean origin had meanings and usages unique to or characteristic of the period, and since that time the words have changed or disappeared entirely from the Korean vocabulary. Vernacular novels in particular contained many such idiosyncratic, made-in-Korea sinicisms. These included, for example,
wencyeng 原情 in the meaning of ‘petition, appeal’ (in Classical Chinese texts, this rare compound meant ‘to ask about the state of affairs’), incyeng 人情 in the meaning of ‘bribe’ instead of ‘human feelings,’ pangswong 放送 in the meaning of ‘set free’ (such a word is not attested at all in Classical Chinese), hawok 下獄 ‘imprison’ (also not Chinese), tungtoy 等待 ‘prepare in advance and wait,’ palmyeng 發明 ‘pretext’ (‘invent’ is a Meiji-period Japanese innovation), and cyengchye 政體 ‘governing conditions’ (rather than ‘system of government’).

At the same time, a variety of new words were added to the Korean lexicon. Some of these came from Classical Chinese, which continued to make itself felt in Korean society, even in sometimes subtle ways. For example, the word nywu ‘kind, category, comrade’ began to appear in Korean texts, e.g., in the 1748 Manchu glossary Tongmun yuhae (2.51). The word appears to have been a trendy loan taken from a reading of the Chinese character 類. Example: chwawu-phyen nywu-tul_un 좌우편 뉴들은 ‘the guys on the left and right sides’ (1704 Samyok ch‘onghae 1.10). Another word that was used a lot in Early Modern Korean was soyngsim_ina ‘bravely.’ Examples: soyngsim_ina 싱심이나 (1690 Yogo yuhae 1.31), soyngsim_ina kule holiiska 싱심이나 그 러 호리잇가 ‘should (we) unhesitatingly so do?’ (1677 Pak T‘ongsa o‘nhae 1.58). This word soyngsim(_ina) ‘bravely’ was most likely a colloquialism that developed from the Sino-Korean reading (en kam soyng sim) of the Sinitic expression 焉敢生心 ‘how could one dare.’

But many neologisms were, at least in origin, Western-inspired terms brought into Korea through China. In the seventeenth century, Korea was an extremely isolated and remote place, and although Koreans had heard of the West through Chinese sources well before that, what they knew of the world beyond the borders of Sinitic civilization was limited and vague. Maps of Europe had first reached Korea around the turn of the seventeenth century, and the gradual introduction of Western cultural objects, as well as direct contact with Westerners, began only during the mid-seventeenth century. Most of these Western cultural objects flowed into Korea through Peking, and devices such as alarm clocks (comyengcywong 自鳴鐘) and telescopes (chyenlikyeng 千里鏡) naturally came to be known by Sino-Korean names. However, of far greater importance were the maps and books imported from China on astronomy, geography, and all manner of natural sciences as well as religion, and through these writings Koreans gained new-found knowledge about the world beyond their borders. It was also during this period that, completely by accident, the first Westerners reached Korea. In 1628 a tall blond Dutchman named Jan Janse Weltevree (Korean name Pak Yo‘n) and two shipmates were marooned in Korea, coming ashore on the eastern coast of Kyongsang Province. Then, in 1653 another Dutchman, Hendrik Hamel, along with a number of his shipmates, was shipwrecked on Cheju Island.
All of these Dutchmen worked in firearms production and other forms of military service for the Korean government, Weltevree for the rest of his life and Hamel and his shipmates for about fourteen years until they were repatriated through Japan to Holland.

The growing number of contacts brought a flow of new objects and knowledge into Korea, and with such things came new words. It was around this time, for example, that tobacco came to Korea. Both object and word are thought to have reached Korea from the West through Kyushu, where, in the local dialect, ‘tobacco’ was pronounced tābako (since intervocalic voiced stops were prenasalized); then, in Korea, the word was naturalized by dropping the last syllable and adding the nominal suffix -i, and the result was tampay ‘cigarettes.’

Nevertheless, the greatest source of loanwords during the Early Modern period was not Western terminology filtered through Chinese (or Japanese), but rather the Chinese language itself. As it happens, many such borrowings are listed and discussed directly in the Isu sinp’yŏn 理新編 by Hwang Yunsŏk (1729–91) and in the Aŏn kakpi 雅言覺非 by Chŏng Yagyong (1762–1836). As a result, these two works provide us with a vivid picture of Mandarin loanwords used in Korea in the eighteenth and nineteenth centuries. Among the borrowings cited there are: tangci 當直 ‘in service,’ tehywung 大紅 ‘deep red, crimson,’ cati 紫 ‘purple,’ mangkin 網巾 ‘horsehair band,’ tenling 團領 ‘official garment with a round collar,’ kankyey 甘結 ‘official document,’ sywuphan 水飯 ‘watered-down rice,’ pitan 匹段 ‘silk,’ thywo-sywu 套袖 ‘sleevelet,’ thangken 唐巾 ‘(Chinese) cap,’ mwumyeng 木綿 ‘cotton,’ pwoli 玻璃 ‘glass.’ Of course, not all these words were borrowed at the same time. And some of them may have been borrowed earlier, during the Middle Korean period. In any event, in his early nineteenth-century work, Chŏng Yagyong pointed out an interesting aspect of how such Chinese loans were handled in his day. Taking pwoli ‘glass’ as an example, he noted that although the word from which it had been borrowed, bŏlī, was written in Chinese with the characters 玻 瓷, Koreans looked for characters with Korean pronunciations that better fit the loanword and came up with 菩 里, and that is how they began transcribing it. This purely phonetic use of characters apparently enjoyed a considerable degree of popularity during the Early Modern period, and more than a few traces of it can still be found today. But then Chŏng also went a step further in his discussion by describing a pun on this word. Since, like ‘glass,’ ‘barley’ was also pronounced pwoli in Korean, and since the character used to write ‘barley’ was 麥, pwoli-ankyeng 玻璃眼鏡 ‘glass spectacles’ came to be called moykkyeng 麥鏡 ‘barley glasses.’ Besides this playful use of transcriptional characters, there was yet another interesting aspect to the pronunciation of Chinese loanwords. The word for ‘glass’ mentioned above was a primary example. In the 1748 Manchu glossary
Tongmun yuhae (2.23), the word was written peli 버리, and in the nineteenth-century Chinese lexicon Hwaŏ yuch’o (20), it was written pholi 폰리. These transcriptions show there was a general tendency away from the original characters towards Koreanizing the pronunciations of the loanwords.

Another source of loanwords was Manchu. However, most of the words that in the past were said to be from Manchu were actually words that Manchu and Korean had both borrowed from Mongolian. If those words are removed from the mix, the number of loanwords from Manchu becomes much smaller. Here are some of those loanwords that were almost certainly from Manchu: nelkhwu 널쿠 ‘rain cape’ (1748 Tongmun yuhae 1.55; 1776 Hanch’ŏng mun’gam 11.6) from Manchu nereku ‘id.;’ swopwuli 소부리 ‘saddle cloth’ (1775 Yŏgŏ yuhae po 46; 1748 Tongmun yuhae 2.19) from Manchu soforo ‘id.;’ khulimay 쿠리매 ‘outer garment’ (1748 Tongmun yuhae 1.55; 1776 Hanch’ŏng mun’gam 11.4) from Manchu kurume ‘id.;’ mahulay 마호래 ‘official’s cap’ (1748 Tongmun yuhae 1.55) from Manchu mahala ‘id.’ This last example, however, was possibly a word that both Manchu and Korean borrowed from Middle Mongolian maɣalai ‘hat.’
The story of Contemporary Korean begins with Korea’s fitful emergence on the world stage in the late nineteenth century. The opening of Korean ports to outside powers brought sweeping political and social change to the country, and the pace and pressure only intensified over the next half-century. For the most part, the change was traumatic. The history of the Japanese colonial period, the partition of the country into north and south, and the culminating, internecine Korean War, was grim.

But the history of the language that played out against this backdrop was not altogether a story of misfortune. The reform of the language, particularly in how it was written, was very much at the center of what in Korea is called the “enlightenment period.” The stage for that movement was set in the early nineteenth century, when there developed out of the Sirhak (Practical Learning) tradition a body of scholarship, known as “enlightenment thought,” that argued for the opening of Korea to Western culture and technology. Then, when Korean ports were forcibly opened to foreign commerce with the Kanghwa Treaty of 1875, many of those Korean intellectuals looked toward constructing policies of reform and modernization. Thus began the “enlightenment period.”

At the top of the reformers’ agenda was language. The creation of a modern state required a modern standard language for the proper functioning of society and government. And because that task was at first seen principally in terms of writing reform, that is where we see the efforts of language reformers during the enlightenment period. The order of business was the “unification of the written and spoken language,” or Ŏnmun ilch’i, a movement that took its name from a similar initiative in Japan, where many of the same problems confronted reformers.

### 7.1 Script reform

In the middle of the nineteenth century, four different kinds of writing were used in Korea. Of the four, Hanmun, Classical Chinese, remained the most prestigious. It was the medium of choice for formal writing, at least among...
members of the elite. Ŏnmun (as Hangul was then known) was the least prestigious. It was also the least standardized and least consistent. “Middlemen,” such as government workers and clerks, wrote in two different ways, either in idu or in Ŏnhannmun, a mixed script consisting of Chinese phrases syntactically connected by particles and inflectional endings written in Ŏnmun.

Within the movement for the “unification of the written and spoken language,” there was general agreement that Classical Chinese and idu were no longer necessary in the modern, West-oriented world. On the other hand, both Ŏnmun and Ŏnhannmun had their ardent advocates. In this situation, it was natural that disagreements would arise within the movement, and from the beginning there were heated debates. For decades (and even today to a certain extent), the two groups of advocates remained at odds over whether Korean should be written completely in Hangul, or in a script mixing Hangul with Chinese characters.

Early in the twentieth century, the mixed script replaced Classical Chinese as the medium for formal writing. One of the most important works in bringing about this reform was Yu Kilchun’s travel diary, Sŏyu kyŏnmun 西遊見聞 (‘Observations on a Journey to the West’), a work he published in 1895. Reporting on the marvels he had seen in Europe and America, Yu presented his narrative not in Classical Chinese (as had often been the custom in some earlier travel diaries) but in a mixed script consisting of Chinese characters transcribing Sino-Korean words and linked by Hangul particles. The same mixed kind of writing was subsequently adopted in most Korean newspapers, and gradually, Classical Chinese stopped being used as a written medium in Korea. After the March 1st Movement in 1919, Chinese characters came as a matter of course to be used only in mixed-script, Korean-language texts.

Hangul-only writing was also moving ahead. Moreover, in at least one kind of publishing there was little that its advocates found necessary to change. The classic novels of the Early Modern period had all been written completely in Hangul, and that tradition continued into the new age, titles being printed in Chinese characters, with the text inside the books appearing in all-Hangul, vertical lines. But all-Hangul writing had popular appeal beyond fiction as well. In 1896 Sŏ Chaep’'il founded Tongnip sinmun 독립신문 (‘The Independent’), Korea’s first truly modern newspaper, and in order to attract a broader readership among the people he had it printed all in Hangul, completely without Chinese characters. It became an extremely popular

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1 Accordingly, both script names were updated along nationalistic lines, Ŏnmun becoming “national writing” (kungmun 國文), and Ŏnhannmun becoming “national Hanmun” (kukhanmun 國漢文).
vehicle for advancing the liberal, Western ideas of the Independence Club, including that of script reform.

Nevertheless, most newspapers of the time were printed in some version of the mixed script, and that practice continued during the colonial period and beyond. After 1945, however, writing and printing in Hangul quickly gained ground. In 1949, Kim Il Sung brought about a complete end to the use of Chinese characters in North Korea, because he associated mixed writing with Japanese practice. In South Korea, too, even though mixed writing continued to be the rule in newspapers and professional books (though never in fiction), the frequency with which Chinese characters appeared in publications steadily declined. Finally, by the 1990s, most major South Korean dailies had phased out the use of Chinese characters, and today, virtually all South Korean publications are printed in Hangul only. The occasional character is still seen in newspaper headlines, usually as abbreviations (for example, 美 stands for ‘America,’ 日 for ‘Japan’). But otherwise Chinese characters appear almost exclusively in parentheses as a clarification for a preceding Sino-Korean word or a name. More recently, beginning in the first decade of the twenty-first century, Chinese characters have undergone a mild resurgence in popularity, with mixed script proponents continuing to advocate the importance of Chinese-character education. But the possibility that Korea will ever see a return to mixed-script publishing seems remote.

7.1.1 Orthographic standards

The reformers’ next order of business was to establish a consistent orthography. During the late Chosŏn period, the lack of standards for Hangul writing had resulted in wildly varying spellings and usages, where even the variety of language or dialect represented depended almost entirely upon the individual writer. Now, as specialists struggled to modernize written Korean, spelling and usage standards became an urgent matter. Regardless whether one advocated writing all in Hangul or, alternatively, in a mixed script, the same problems of Hangul standardization confronted language planners. Thus, in order to address these problems, serious study of Contemporary Korean phonology and grammar began.

In 1905, the activist Chi Sŏgyŏng put forward a public appeal for the development of “new standards” of spelling and usage (新訂國文). This document quickly attracted enough public attention to affect government policy, the first to do so, and in 1907 the newly established Institute for the Study of Korean Writing (Kungmun Yŏn’guso) took up Chi’s proposal and began serious work on the project. In this first effort at standardization, the most important contributor by far was the scholar Chu Sŏgyŏng, the founder of the Society for the Standardization of Korean Writing (Kungmun
Tongsikhoe). Chu was a passionate patriot and advocate of language reform, and it was his suggestions and principles that were reflected most in the document the Institute developed. Chu was also a brilliant and intuitive student of language science. Already by the end of the nineteenth century, Chu had put forward principles for a new orthography, and the theoretical and descriptive works he published in the early decades of the twentieth century on Korean grammar, phonology, and script were to have long-lasting effects not only on the development of language policy, but on Korean linguistics as well. Most notable was his Kugŏ munpŏp 국어문법 (‘Korean Grammar’ 1910), and his Mal ŭi sorı 말의 소리 (‘A Phonology of Korean’ 1914). Chu Sigyŏng is also usually given credit for coining the word “Hangul” itself around 1912.

Language scholars worked for two more decades. Finally, in 1933, the Korean Language Society (Chosŏn hakhoe 조선어 학회)2 issued its landmark document, “A Proposition for the Unification of Hangul Orthography” (Han’gŭl matchumpŏp tongiran 한글 맞춤법 통일안). Based largely upon Chu Sigyŏng’s ideas and principles, the “Proposition for the Unification of Hangul Orthography” remained the orthographic standard for the next half century.

In 1988 the South Korean Ministry of Education promulgated a new, official document, “Hangul Orthography” (한글 맞춤법). From time to time minor spelling rules found in its guidelines continue to be tweaked by officials in the Ministry of Education, but in general this 1988 document remains the rule book governing how Hangul is written.

7.1.2 The principles of contemporary Korean orthography

Both the “Proposition for the Unification of Hangul Orthography” of 1933 and the “Hangul Orthography” of 1988 were crafted in ways that preserved the existing alphabetic system with minimal change. Of the letters themselves, the reformers eliminated the vowel symbol ˓, because the sound it stood for, [ʌ], no longer existed in Seoul speech. They also changed the convention for representing the reinforced consonants /kk, tt, pp, ss, cc/. Instead of writing those phonemes as consonant clusters, ㄲ, ㄸ, ㅃ, ㅆ, ㅉ (sk, st, sp, ps, sc), they decided to transcribe them with double letters: ㄲ, ㄸ, ㅃ, ㅆ, ㅉ. But those were the only symbol changes they made.

The convention of using the consonant symbol 阆 to represent a “zero initial” as well as a syllable-final /ng/ was kept intact. The standard Seoul vowel sounds [ɛ], [e], and [ɵ] continued to be written, as before, by combining two vowel symbols, ㅖ, ㅔ, and ㅗ, as if these vocalic elements were still the

2 Renamed the “Han’gŭl hakhoe 한글학회” after the colonial period.
diphthongs [ay], [ey], and [oy]. Monophthongization had taken place centuries earlier, but the orthographic convention for transcribing the restructured vocalic elements did not reflect that change. The symbol ﾃ continued to be used to transcribe both [s] and [t] at the end of a syllable.

The basic principle of this orthography was summarized in Article 1 of the 1933 document as follows: “Write the standard language according to its sounds, but make it fit the language rules.” What this statement meant in practice was that the new orthography was to be a morphophonemic one. That is, although Korean letters were to be written “all according to their sound values” (Article 5) if possible, the morphophonemic shape of the word took precedence. And so, for example, ‘value, price’ was always to be written 값 (kaps), even though the final ﾃ(-s) would not be pronounced when followed by a consonant (e.g., 값과 [kapkʔwa], 값도 [kapto]). The decision was to keep the “basic” shape of the word constant. The only exceptions to the rule were irregular verb and adjective inflections. For example, 값다, 고와 [kwop(-ta), kwo.w(-a)] ‘pretty’; 값다, 지어 [cis(-ta), ci(-e)] ‘make.’

In other words, even though many of the participants in the “Unification” project had not fully understood the morphophonemic principle, it was what consistently guided the construction of the orthography. It was the kind of writing that Chu Sigu阳县 had long argued for. But it was also exactly the opposite of fifteenth-century orthography. In the fifteenth century, Hangul writing had very much been a phonemic one instead (see the discussion in Chapter 5, above).

7.2 Language standardization

During the years the Korean Language Society worked on establishing an orthography, it was less actively concerned with defining a standard for the spoken language. Nevertheless, when the “Proposition for the Unification of Hangul Orthography” was promulgated in 1933, the first rule laid out in the document’s introduction was that, “The Standard Language is to be Seoul speech now generally used in middle-class society.” That simple preamble to the rules of orthography was the first explicit statement of its kind about standard Korean. Two years later, in 1935, the Society established a committee to assess more specifically what was meant by the standard language, and in 1936 the committee produced a booklet entitled Sajo-han Chosŏn p’yon mal moyom 查定한 朝鮮語 標準말 모음 (‘A Collection of Standard Language Vocabulary’). In that document the authors listed the standard forms for more than 6,000 words.

More recently, in 1988, the South Korean Ministry of Education published, along with its new rules for orthography, a separate guide entitled P’yonun kyujŏng haesŏl 표준어 규정 (‘Standard Language Rules’). Among other
things, this booklet refined the definition of the standard language to read, “Contemporary Seoul speech generally used by educated people.”

Whatever the standard language was called, however, it was as a practical matter built upon the prose found in the “new novel” of the early twentieth century. That became the language taught in all schools after 1945. Ever since then, the public school classroom, along with migration (especially to Seoul, which is now home to a fourth of the South Korean population), public media, and military service, has served to bring the Seoul standard to all parts of the country.

The Seoul dialect is now recognized throughout South Korea as the prestige variety of the language. It is universally understood, the primary medium of communication everywhere; it is rapidly displacing all regional dialects and usages, especially among the young. In North Korea much the same is true. There the government claims that the standard (called “Cultured Language” 문화어) is based upon speech in Pyongyang, but that statement is only partially true. Until 1945 Seoul speech was the standard there as well, and what is spoken today in the north has yet to diverge significantly, except in the official vocabulary used by the state. In any event, regional diversity is said to be disappearing even more rapidly there, in North Korea, than it is in the south.

7.3 Trends and changes

Language in Korea today has been researched intensively, and the literature on almost every aspect of its structure is voluminous. Contemporary Korean is a well-known, world language in the twenty-first century. At the beginning of the last century, however, what was spoken and written was notably different. The lexicon has undergone significant shifts, and the phonology and morphology have changed in some respects as well. What follows outlines some of those changes.

7.3.1 Phonology

The script unification of 1933 raised awareness among the Korean reading public that some sounds had changed, but the new standard spellings also masked other, ongoing changes.

7.3.1.1 Consonants

For the most part, the Korean consonant system has been relatively stable since the nineteenth century. The changes associated with palatalization represent the last major restructuring of the system, and those had run their course by that time. (See above, Chapter 6.)
Stops and affricates are, as before, divided into three series: plain, aspirated, and reinforced.

Plain: \( p \ \ t \ \ k \ \ c \)

Aspirated: \( \text{ph} \ \ \text{th} \ \ \text{kh} \ \ \text{ch} \)

Reinforced: \( \text{pp} \ \ \text{tt} \ \ \text{kk} \ \ \text{cc} \)

The “plain” consonants are marked by lax articulation. In initial position they are voiceless and slightly aspirated; between vowels they are voiced. Aspirated consonants are voiceless and characterized by a strong puff of air, particularly so in initial position, less so in medial position. “Reinforced” consonants are articulated with considerable muscular tension throughout the vocal tract, especially in the glottis, and so they are said to be glottalized. They are voiceless. In medial position the closure time of reinforced stops is much longer than that of plain consonants.

This three-way contrast does not apply to fricatives, however. There are only two dental fricatives, \( s \) and \( ss \). The plain consonant \( s \) has a lax articulation, but in initial position it has considerably more aspiration than the other plain consonants. Also, unlike other plain consonants, it does not voice between vowels, giving rise to the belief among many phonologists that \( s \) should be classified with the aspirated series of consonants.

Contemporary Korean has only one glottal fricative, \( h \). In Middle Korean, there had also been a reinforced glottal fricative \( hh \), a phoneme that continued to exist into Early Modern Korean times, at least as late as the seventeenth century. (In that later age \( hh \) was occasionally transcribed as the cluster \( sh \); see the discussion in Chapter 6, above.) The loss of the reinforced glottal fricative \( hh \) (which usually became an aspirated velar stop, \( kh \)) therefore represents a change in the phonological structure of Korean.

In addition to those stops, affricates, and fricatives, Contemporary Korean also has three nasals, \( m, n, ng \), and one liquid, \( l \). As is well known, the phoneme /l/ has two main allophones, a tap [ɾ] and a lateral [l]. The velar nasal \( ng \) does not occur in initial position. In native and Sino-Korean words the liquid /l/ also does not occur in initial position, but it frequently does in Western loanwords, where it usually has the articulation [ɾ]. And with the explosion of vocabulary borrowed from English in recent decades, that initial liquid is rapidly becoming a statistically common segment in the Korean sound system.

Throughout the history of the Korean language, there has been a tendency toward increasing implosiveness. In this process, consonant contrasts at the end of a syllable have slowly been lost, and today, a syllable followed by a juncture can only end in a vowel or one of seven consonants, \( p, t, k, m, n, ng, \) or \( l \). None of these syllable-final consonants is ever released. Other consonants that occur morphophonemically at the end of a word (and thus are transcribed
in today’s morphophonemic orthography) are realized phonemically only when they are followed by a particle or an inflectional ending. Aspiration and reinforcement at the end of a word are otherwise neutralized; thus, p and ph, for example, are both realized there as the unreleased stop [p]. Fricatives and affricates as well as stops are not distinguished in terminal position. There, the stops t and th, the affricates c and ch, and the fricatives s and ss are all uniformly realized as [t]. Notice that s had been distinguished from t in final position in the fifteenth century, but this distinction was lost around the turn of the sixteenth century. The realization of the phoneme /l/ as [l] in terminal position is in keeping with this tendency toward increased implosiveness.

There are no initial clusters in Contemporary Korean. Nor do clusters normally occur at the end of a word. On occasion, clusters such as [lm] can be heard in words such as salm ‘life,’ but such careful articulation is often a spelling pronunciation. Such clusters before a juncture are reduced by phonological rules; in this case, the /l/ is elided. Between vowels, a maximum of two consonants occur in clusters, and morphophonemic rules dictate which ones those are and how they are realized. The rules are often complex. For example, the cluster in the Sino-Korean compound twoklip ‘independence’ is replaced by -ngn-; thus, the word is pronounced [toŋnip]. The extent to which the range of morphophonemic rules found in Korean today applied in earlier periods is not altogether clear, especially in Sino-Korean compounds.

7.3.1.2 Vowels

Korean vowels have changed in a number of ways since the nineteenth century. The present-day Seoul standard is said to have two rounded front vowels, but that was apparently not the case in the nineteenth century. At that time, what was written as the diphthongs woy ㅗㅏ and wuy ㅗㅣ appear to have still had -y offglides, at least judging by the philological evidence (see the discussion in Chapter 6, above). But in today’s Seoul standard, /woy/ is pronounced [õ] or [we], and /wuy/ is [ü] or [wi]. In general, when those vocalic elements appear at the beginning of a word, and without an initial consonant, they are always pronounced [we] and [wi]. For example, ‘cucumber’ (వ/) is [we], and ‘upper part, above’ (위) is [wi]. But when they are preceded by an initial consonant, especially one pronounced with a palatal articulation, they become the front rounded vowels [õ] and [ü]. For example, swoy 쇠 ‘metal, iron’ is usually pronounced [sɔː]; cwoy 죄 ‘sin, transgression’ is [tɔː]; swuy 쉬 ‘flyblow’ is [ʃũ]; and cwuy 죄 ‘mouse, rat’ is [tũ]. Many young Seoul speakers do not have these front rounded vowels, pronouncing them [we] and [wi] in all phonological environments; still, the vowels are recognized as part of the ideal system considered to be the standard. Here are the vowels of that system:
Standard Korean vowels

| ᵅ | i [i] | ᵅ | wuy [u] | ᵅ | u [i] | ᵅ | wu [u] |
| ᵅ | ey [e] | ᵅ | woy [o] | ᵅ | e [œ] | ᵅ | wo [o] |
| ᵅ | ay [æ] | ᵅ | a [a] |

Note, here, that the phonetic value of the vowel /e/ is not always [œ]. Rather, the pronunciation of that vowel depends upon its length, and such an allophonic difference was already there in the nineteenth century, as is apparent from some of the transcriptional confusion of the day. When the vowel in today’s standard is short, it has a pronunciation much like [ʌ]; when long, it is [œ:]. That difference can be heard in many Sino-Korean readings. For example, 荣 ‘glory’ is read [yʌŋ]; 永 ‘eternal’ is [yœŋ].

The standard vowel system is in the process of change, however. It is already somewhat old-fashioned and noticeably different from what is heard today in the speech of younger-generation Seoul natives. For one thing, as we have mentioned, the two front rounded vowels are being lost. A still better-known change is the ongoing merger of the two vowels ay [æ] and ey [e], so that today, almost no one in Seoul under the age of about fifty can tell the two sounds apart, even in first-syllable position. For most Seoulites, then, kay 개 ‘dog’ and key 개 ‘crab’ can only be distinguished by context. The loss of this distinction is usually attributed to the large-scale migrations into Seoul from the southeast, especially from Kyongsang, because the two vowels have long since merged in the dialects spoken there.

Another ongoing vocalic change in Seoul can be heard in the sequence uy –ı, which is often pronounced as a diphthong, [iy]. This vocalism stands out as a structural exception, primarily because -y offglides were uniformly lost following the monophthongization of diphthongs that took place in the nineteenth century. But older natives of Seoul, at least, do not pronounce uy –ı as a diphthong at all. Instead, the sequence is morphophonemic only. In their speech it is realized as [i] in word-initial position and as [i] later in the word.³ The diphthong [iy] heard in the speech of the young is thought to be, in origin, a spelling pronunciation of the morphophonemic transcription. In addition, the genitive particle, which in earlier periods was /uy/ 의 and is still written that way, is always pronounced [e] by young and old alike.

There are also a number of purely historical spellings, particularly of Sino-Korean morphemes. For example, huy 希 ‘hope for’ is always and only

³ An interesting phonological trace of the earlier, diphthong pronunciation, however, can be found in such words as pwonuy 보늬 ‘inside skin (of a chestnut)’ and mwunuy 무늬 ‘pattern.’ For there, in those words, the phoneme /n/ does not palatalize to [ɲ] as it usually does in front of the vowel /i/, and instead it is pronounced [n], showing that at some structural level the vowel /u/ is still there.
pronounced 히 [hi]; kyey 계 ‘rank, grade’ is 계 [ke]; (sil)lyey (실)례 (失) 禮 ‘(lapse in) etiquette’ is (실)례 [(ʃ)il]ie]; etc. The glides represented in the spellings of these latter two morphemes (and many other such morphemes) no longer exist.

**Vowel harmony** Much of the Middle Korean vowel harmony system has broken down, but some of the oppositions are still remarkably productive. In particular, the yang, or ‘bright,’ vowels /a/ (ㅏ) and /wo/ (ㅗ) are paired against the yin or ‘dark’ vowels /e/ (ㅓ) and /wu/ (ㅜ), and these oppositions are robust in onomatopoeia and mimetics. For example, the adverb allak-tallak, with ‘bright’ vowels, is descriptive of dappling in small dots or flecks, while the opposing ‘dark’ vocalism in ellek-tellek describes variegation in large patches. The adverb cwol-cwol means ‘trickling, murmuring,’ while its dark counterpart cwul-cwul implies ‘flowing, streaming.’ Such vowel harmony relationships give Korean a distinctive and lively range of expression.⁴

In addition, traces of the earlier vowel harmony system can still be found in verbal inflection, most notably in what is known as the infinitive ending -a/e ‘does and then . . . ’ To a certain extent, the behavior of this morpheme remains that of the Early Modern period. However, in many cases occurrences of the -a allomorph now alternate with, or are being replaced by, -e. In what is deemed the standard language, -a is said to occur after inflecting stems with an /a/ or /wo/ vocalism (that is, with a ‘bright’ vocalism). But increasingly in Seoul today, one hears pat.e ‘receive and . . . ’ and cap.e ‘grasp and . . . ’ in place of ‘standard’ pat.a and cap.a.

### 7.3.1.3 Suprasegmentals
The Seoul dialect has distinctive vowel length. As we have already men-
tioned, tones were lost in the central dialect in the sixteenth century, but a trace of the so-called rising tone was left in the form of a long vowel. That development resulted in contrasts such as the following:

<table>
<thead>
<tr>
<th>Long vowel</th>
<th>Short vowel</th>
</tr>
</thead>
<tbody>
<tr>
<td>ma:l ‘speech’</td>
<td>mal ‘horse’</td>
</tr>
<tr>
<td>nwu:n ‘snow’</td>
<td>nwun ‘eye’</td>
</tr>
<tr>
<td>pa:m ‘chestnut’</td>
<td>pam ‘night’</td>
</tr>
<tr>
<td>pa:l ‘blinds’</td>
<td>pal ‘foot’</td>
</tr>
</tbody>
</table>

However, as was generally true in the Early Modern period, vowel length is not preserved in non-initial position. For example, the vowel is long in the

⁴ Cf. the discussion of Japanese verbs and mimetics in Shibatani (1990, pp. 153ff). Shibatani’s observations about the semantic roles and interactions of these words in Japanese could be applied to Korean as well.
verb stem e:ps- ‘does not exist.’ But when that stem occurs non-initially, such as in kkuth-epsi ‘endlessly, without end,’ its vowel is short. In casual speech, the contrast between ches-nwu:n ‘first snow’ and ches-nwun ‘first look (literally, first eye)’ is lost. This loss of vowel length in non-initial position is especially apparent in Sino-Korean compounds. For example, the long vowel of tay: (大) ‘big, great’ is kept long in tay:hak (大學) ‘college,’ but becomes short in hwaktay (擴大) ‘magnification.’

7.4 Morphology

We have described the grammatical changes that began to take place in the sixteenth century as structural simplification. This tendency toward the leveling of morphological complexity continued into the Contemporary period.

7.4.1 Nouns and noun phrases

In Middle Korean, certain classes of nouns had non-automatic, allomorphic variations. But today, in the Seoul dialect at least, these variations have been lost and the nouns have unitary shapes. The Middle Korean alternation namwo ~ namk- ‘wood, tree’ has become uniformly namwu (except in one or two archaic idioms); kwumwu ~ kwumk- ‘hole’ is now kwumeng (again, except in archaic idioms). The noun nwolo ~ nwolG- ‘roe deer’ is nwolwu; and azo ~ azG- ‘younger brother’ is always awu.

Morphophonemic variety at the end of nouns is being leveled. For example, in standard Korean the noun kkwoch ‘flower’ is pronounced [kʔot] in isolation, but [kʔocʰ] when followed by a particle beginning with a vowel; e.g., kkwoch i, kkwoch ul. But now, in the speech of many Seoulites, the ending consonant ch is optionally replaced by s; thus, one hears kkwos i, kkwos ul. The same is true of the consonants at the end of cec ‘breasts, milk’ and path ‘field,’ where ces and pas have become optionally occurring forms. These examples are representative of changes taking place in dental obstruents at the end of words.

In Middle Korean, a morphophonemic h at the end of nouns was realized before particles beginning with a vowel. The consonant has since been lost in that environment. However, a trace of it can still be found in Seoul speech at the end of the word hana ‘one.’ In standard Korean, the addition of a particle to this noun produces regular forms such as hana_two ‘[not] even one.’ But in Seoul speech the irregular form hana_thwo can still be heard, and there the aspiration serves as evidence of a noun-final h. Similarly, the form of the subject particle i/ka that ordinarily appears after a vowel is ka, and that is the form we usually see after hana; thus, hana_ka. However, hana_i can also sometimes be heard, and the use of i here is evidence that, in some
people’s speech at least, the noun can still be treated as if it ends in a consonant. Besides this exception, evidence of an h at the end of nouns can today be found only in frozen compounds such as am-thalk ‘hen’ (< anmh ‘female’ + talk ‘chicken’) and swu-thalk ‘rooster’ (< swuh ‘male’ + talk ‘chicken’).

7.4.1.1 Particles

ka The subject particle ka first appeared in texts written toward the end of the Middle Korean period. But it was then rare and remained so throughout the Early Modern period, at least in the textual record. The subject particle used in those records was always i, in all phonological environments. Later, attestations by foreign missionaries in the late nineteenth century made it clear that, although ka was not being written down, the particle had already become common in speech, alternating with i in the suppletive relationship familiar to us today. It was only in the Contemporary Korean period that ka came to be used regularly in writing.

s In the Early Modern period, the Middle Korean genitive particle s ــ became unproductive as a genitive marker. From then on, it has appeared only in noun compounds. Yet, how it functions in forming those compounds has still not been completely elucidated, even today. For example, namwus-cip ‘lumber yard’ (< namwu ‘wood’ + s + cip ‘house’) has a different meaning from namwu-cip ‘wooden house,’ without the “medial s” (سی). What the contribution of s is to the difference in meaning is not always clear.

uy Like usages of the dative marker eykey, occurrences of the genitive particle uy were in earlier periods confined to uses after an animate noun. However, relatively recently the use of uy has broadened to include uses after inanimates. Moreover, this genitive particle is now also combined with the locative particles ey ‘to, toward,’ in constructions such as sengkwong ey uy kil ‘the road to success,’ and eyse ‘from,’ as in Hankwuk eyse uy swosik ‘news from Korea.’ These constructions probably arose originally as translations of English or Japanese.

7.4.1.2 Pronouns

Several changes took place in Korean pronouns after the Early Modern period. One is that the subject forms of na ‘I’ and ne ‘you’ became nay_ka and ney_ka – or at least those forms became commonplace. In both instances, the particle ka was simply added to the old nominative forms nay and ney, which already combined the pronouns na and ne with the older subject particle i. Still more recently, the loss of the phonological distinction /ay/ : /ey/ among younger-generation speakers has resulted in the creation of the
new form *ni_ka* ‘you (as subject).’ New genitive forms of those two pronouns also emerged: *nay* ‘my’ and *ney* ‘your.’ And once again, the loss of the vocalic distinction has precipitated the change of *ney* ‘your’ to a new possessive form, *ni*.

The beginning of the Contemporary period also marked the first regular uses of the honorific first-person pronoun *ce*. Used as subject, its form is *cey_ka*, and its genitive form is *cey*.

The interrogative pronoun *nwu* ‘who’ came to have an additional, second form, *nwukwu*. Used as subject, ‘who’ is now *nwu_ka* instead of earlier *nwuy*. As genitive, alongside the somewhat literary *nwuy*, *nwukwu_uy* is now more common in spoken Korean. The form of the interrogative used as object is *nwukwu_lul*.

### 7.4.2 Verbs and adjectives

The inflection of verbs and adjectives has remained essentially the same as it was in the Early Modern period. However, the inflection of the copula has been altered through analogy with verbs. The most noticeable changes are that, first, the direct-style indicative assertive *ita* ‘(it) is’ has now replaced Middle Korean *ila*, and, second, *ikwo* ‘is and . . . ,’ is almost exclusively used as the “gerund” in ordinary speech. Of course, a trace of *ila* is still found in the quotative, *ila(kwo)*; and the older, Middle Korean gerund *iywo* is still used in writing and in very formal speaking styles.

Another change can be found in how negatives are formed. What is often considered the negative copula *anita* is the negative *ani* functioning as a precopular noun, as in Middle Korean *ma.l_i ani *la 마리아니라 ‘not (that) language’ (*Sŏkpo sangjŏl* 6.36a). But *ani* also functioned as an adverb used to negate inflecting forms: *ani wolila* 아니 오리라 ‘not come’ (*Wŏrin ch’ŏn gang chi kok* 53). In the Early Modern period, *ani* also came to be used with verbal inflection as an alternative pattern for negating verbs. And so, in texts from the seventeenth and eighteenth centuries, we see such inflected forms as *(hoti) ani.l, anye, animye (или)* 아닐, 아녀, 아니며 ‘not (do).’ But coming into the Contemporary period, this inflecting pattern was lost. Now in its place we find two alternatives, *(haci) ani hata* ‘not do,’ a somewhat old-fashioned pattern with verbal inflection, or its contraction, *(haci) anhta* ‘not do.’

#### 7.4.2.1 The honorific system

Korean’s famously complex honorific system depends heavily upon inflectional categories. There were three such categories in earlier Korean: (1) subject honorification, (2) object exaltation, and (3) speech style. ‘Object
exaltation,” which is how a speaker shows deference toward the person affected by the action of the verb, is no longer a productive part of the inflectional system, however. In Middle Korean, the verbal suffix -sop- served that function. But today a person in an object position is shown respect in other ways, most notably by the particle kkey (for a person in the indirect object position – e.g., halme-nim_kkey ‘to grandmother’) and by special polite words such as mwosita ‘escort.’

Thus, in the inflectional system, Contemporary Korean only makes use of subject honorification and speech style. Subject honorification is expressed by incorporating the prefinal ending -(u)si- into the predicate. This morpheme is at least as productive today as it was in Middle Korean.

The “style” of a sentence reflects the social relationship of the speaker to the person to whom he or she is speaking. The spoken, standard language now has a number of such levels; some scholars argue for six, some for only three, four, or five actively used levels. Assuming first the larger number, the levels are, in increasing levels of formality: (1) plain style (hayla-chey 해라체), (2) panmal style (panmal-chey 반말체), (3) familiar style (hakey-chey 하게체), (4) semiformal style (hawo-chey 하오체), (5) polite style (hayywo-chey 해요체), (6) formal style (hapsywo-chey 합쇼체). Here are examples:

(1) Plain: Kwohyang_i eti ‘ni? 고향이 어디니? ‘Where are you from?’
(2) Panmal: Kwohyang_i eti ya? 고향이 어디야? ‘Where are you from?’
(3) Familiar: Caney_ka kakey 자네가 가게. ‘You go.’
(5) Polite: Kakeyss.e ywo? 가겠습니다? ‘Are you going?’
(6) Formal: Kakeyss.supsita. 가겠습니다. ‘(I’ll go.)’

(In addition, in certain kinds of formal writing, yet another style called haswose-chey 하소세체 can sometimes be seen.)

However, of these six levels, two are rapidly becoming obsolete. The reason is that younger Seoulites no longer use the “familiar style” (hakey-chey) or the “semiformal style” (hawo-chey) at all. And since what is called here the “polite style” involves only the addition of the sentence particle ywo 요 to the panmal style, the honorific inflectional system is rapidly being reduced to only three different sets of endings: plain, panmal, and formal.

7.5 Syntax

As has been mentioned before, Korean syntax has remained relatively unchanged since the earliest records. However, its structure is not completely unaffected by other languages. In particular, some usages have been imported from Japanese. One example is the syntactic distribution of pwota, a morpheme of comparison originally and primarily used as a nominal particle. In that
particle usage, *pwota* first arose as the Contemporary Korean shortening of the Early Modern postposition *pwotaka*. But during the period of Japanese occupation, the morpheme came to be used as an adverb, too; for example, in *pwota wuytae-hata* ‘is greater,’ *pwota* modifies the predicate. This adverbial usage is modeled on Japanese *yori*, a morpheme of comparison also used as both adverb and particle.

Another example of Japanese influence is the use of the auxiliary particle *ppwun* ‘only X’ in the free-standing construction *ppwun_man anila* ‘not only (that), in addition.’ This construction is modeled on the rather literary Japanese written form *nomi-narazu* ‘not only. . .’

### 7.6 Vocabulary

In the Contemporary period, the most significant changes in the Korean language by far have been in its vocabulary. Thousands of new words have been imported into Korean and have fundamentally altered its lexicon. However, although these words are terms of Western origin, they were not borrowed directly from English or from any other Western language, at least not in the nineteenth and early twentieth centuries. Instead, in an era when few had ever heard a word of English spoken, Koreans took in each new term through a translation of the word’s roots into Classical Chinese. While their knowledge of English was almost non-existent at the time, Koreans knew that literary language intimately and well, and as a result, Classical Chinese served effectively as the vehicle for bringing in new ideas and concepts.

For the most part, these translations of Western words originated in Japan. Japan had adopted Western ideas and technologies earlier and more aggressively than either Korea or China, and in doing so, had developed strategies for dealing with vocabulary earlier as well. The words they came up with were not marked as Japanese; instead, they were coinages that made use of the elite culture common to all of East Asia. Thus, no matter where the vocabulary came from, it was readily adopted by Chinese, Japanese, and Koreans because it fit naturally with the Sinitic lexica that already existed there (just as do new Latinate coinages in the vocabularies of European countries).

Such neo-Sinitic words usually consist of two Chinese characters, or, occasionally, three. Moreover, they often involve a literary allusion from the Chinese classics. For example, in an 1867 essay, the Meiji intellectual Fukuzawa Yukichi introduced the term 文明(開化) *bunmei(-kaika)* to his readership as a translation of English ‘civilization.’ Although *bunmei* ‘civilization’ is an ordinary Japanese word now – just as its equivalent, *mwum-myeng*, is in Korean – at the time Fukuzawa first used the word, it was instantly recognizable to any educated East Asian gentleman as a graceful phrase from the *Book of Changes* meaning ‘literary embellishments are
resplendent.’ In perhaps a similar way, kwahak 科學 (in Korean pronunciation) was created to render English ‘science’; miswul 美術 was patterned on English ‘(fine) arts’; ciyang 止揚 was from German Aufhebung. A few words were coined in modern China; e.g., kiha 幾何 ‘geometry’ (from jihé, imitating the sounds of English ‘geo(metry)’). And no matter whether the original model was English or French, kwuk.e 國語 was used to designate the new ‘national language.’ Here are a few more examples: sahwoy 社會 ‘society,’ cengchi 政治 ‘politics,’ kyengcey 經濟 ‘economics,’ chelhak 哲學 ‘philosophy,’ kanyem 概念 ‘concept.’ Such vocabulary now fills the modern Korean lexicon.

Some borrowings are productive morphemes. For example, the suffix -cek 的 changes a noun into an adjectival usage; e.g., aykwuk 愛國 ‘patriotism’ → aykwuk-cek 愛國的 ‘patriotic,’ isang 理想 ‘ideal’ → isang-cek 理想的 ‘idealistic.’ The suffix -cwuuy 主義 adds the meaning of ‘-ism’: isang-cwuuy 理想主義 ‘idealism,’ sahwoy-cwuuy 社會主義 ‘socialism,’ capwon-cwuuy 資本主義 ‘capitalism.’ A few popular neologisms were closely associated with a particular time period, and did not last long. One of these is the word kayhwa 開化 itself used as a prefix; for example, kayhwa-cang 開化杖 ‘(enlightenment) walking stick,’ kayhwa-cwumeni ‘purse (= enlightenment-pocket).’ The prefix yang- 洋 ‘Western,’ whose use goes back to the nineteenth century, has endured much longer; e.g., yang-pha ‘bulb onions.’ But many such words have fallen into disuse; yang-tampay ‘Western cigarettes’ yangpwok ‘[Western] suit,’ and yangcuw ‘[Western] liquors’ are old-fashioned and now seem quaint.

Throughout the known history of Korean, Sinitic vocabulary has tended to displace native words. The more recent “neo-Sinitic” vocabulary has continued and added to that tendency. Moreover, whenever Sino-Korean synonyms exist alongside native words, the Sino-Korean words are generally considered more elegant, and therefore sometimes serve as respectful, even honorific terms. That is particularly true of professional usages such as medical vocabulary. Sino-Korean chia 歯牙 ‘tooth’ is more elevated than native i – or the socially even lower ispal, as is chithwong 齒痛 ‘toothache’ alongside i alh.i. And swucwok 手足 ‘hands and feet, limbs’ is considerably more distancing and professional than its synonym swon-pal.

7.6.1 Native neologisms

This neo-Sinitic vocabulary grew rapidly during the enlightenment period, but soon thereafter a parallel, nativist movement also emerged. The awakening of nationalist sentiments and a newly discovered pride in all things Korean, and especially in Hangul, resulted in efforts to displace these new words with pure Korean. Instead of the Sino-Korean word mwunpep 文法
'grammar,' nativist language scholars substituted the neologism *malpwon*, literally, ‘language model.’ To replace *myengsa* 名詞 ‘noun,’ they made up the new word *illum-ssi* ‘name seed.’ In physics, *cawoysen* 紫外線 ‘ultraviolet rays’ became *nem-pwola-sal* ‘cross-purple-(sun)beam.’

This movement toward language purism gained strength after liberation from Japan. In South Korea, the movement found a base of political power in the Ministry of Education, which forcefully promoted the use of such native neologisms. Though most of these coinages willy-nilly ignored the nuances of language use in South Korea, a few of them can still be seen in writings today – for example, in math textbooks *seym-pwon* ‘calculation-model’ is used as a synonym for *sanswu* 算數 ‘arithmetic’; *sey-mwo-kkwol* ‘three-corner-shape’ is substituted for *samkak-hyeng* 三角形 ‘triangle.’ Such prescriptivist usages are often not well thought out. For example, *kkwol* ‘shape’ is used in many compounds (as in *sey-mwo-kkwol* ‘three-corner-shape’ = ‘triangle’; *maykim-kkwol* ‘classifying-shape’ = ‘modifying form’). This usage is an example of the reformists’ zeal for “getting back to our roots,” because it was a normal and respectable word in Middle Korean. But in the language spoken today, *kkwol* is derogatory, vulgar, and laughable; for example, *kkwol-pwulkyen* ‘shabby, indecent, obscene,’ *kkwol-sanapta* ‘ugly, disgusting,’ *Ce kkwol cwom pwala!* ‘Look at that silly idiot!’ The result is that neologisms such as *sey-mwo-kkwol* are met with snickers. They are usually too clumsy to be taken seriously. Another part of the problem is that many of the neologisms are constructed so as to imitate the conciseness of Sino-Korean expressions. But that is something difficult to do without violating the natural structure of Korean. The coinage for ‘ultraviolet rays,’ *nem-pwola-sal* ‘cross-purple-(sun)beam,’ is as clumsy as the English translation suggests.

However, whereas such efforts by specialists have enjoyed little success, genuinely native words arose more naturally in Korean society. For example, the word *woppa* ‘(a girl’s) older brother’ is now an integral part of standard Korean, even though it was only used within the city walls of Seoul around the beginning of the twentieth century. After liberation from Japan, some Japanese words were replaced by native coinages. Thus, *ywokkwotwoli* ‘cutting in (line)’ (from J. *yokodori* ‘seizure, taking away’) became *say-chiki* (from ‘interval’ + ‘striking’); *suli* ‘pickpocket’ became *swomay-chiki* (from ‘sleeve’ + ‘striking’). The new Korean literature gave poetic uses to the language. The noun *kwo.ywo* ‘stillness, quiet’ arose as an elliptical, literary usage from the adjective *kwo.ywo-hata* ‘is still, quiet’; *wokwo-kata* ‘comes and goes’ was abbreviated to *wokata*. Some archaic, literary words such as *kalam* ‘river’ have been resurrected.

The new literature also introduced usages patterned on translations of Western languages. One particularly glaring example is the use of third-person
pronouns otherwise alien to Korean. (The same kinds of things were found in the new literature of Japan as well.) The early twentieth-century writer Kim Tongin famously experimented with using the prenoun *ku* ‘that’ as a third-person pronoun; others tried Sino-Korean *kwelnye* (厥女) for ‘she,’ still others *kunye* (‘that’ + ‘female (女)’) or *kuney*, in that meaning. For the most part, these pronouns have not been adopted into speech, however.

Toward the end of the twentieth century the nativist movement took yet another turn. Around the time that South Korea began to see a renaissance of interest in traditional performing and visual arts, it became fashionable to create personal names out of native words. All at once, instead of traditional Sino-Korean names, many children began to be called Kalam 가람 ‘river,’ Pichna 빛나 ‘shine,’ Sinay 시내 ‘stream,’ Hanul 하늘 ‘sky,’ Kkochnim 꽃님 ‘flower,’ Sulki 슬기 ‘wisdom,’ Pyel 별 ‘star’ – or, most famously, Pi 비 ‘rain’ (as in the name of the Korean pop star). And today, at the beginning of the second decade of the twenty-first century, this nativist naming practice shows no sign of waning. Moreover, the nostalgia for a Korean past (whether real or imagined) does not end with personal names. Romantic, native names have also become popular for such things as coffee shops, restaurants, night clubs, and even residences; e.g., Namwu sai_lwo 나무 사이로 ‘In the midst of the trees,’ Pwom nal_ey pwoli-pap 봄날에 보리밥 ‘Barley rice on a spring day.’ On the other hand, Sino-Korean names are usually the rule for more staid or formal business establishments.

7.6.2 Loans

During the period of Japanese occupation, Koreans absorbed countless linguistic elements from Japan. After liberation, Japanisms were largely eliminated in North Korea; and in South Korea, too, most Japanese loanwords quickly fell into disuse, with moves to purge further linguistic reminders of that period continuing to this day. Most of the replacement vocabulary has involved adopting the Sino-Korean readings of the characters with which a particular word was written, but sometimes a native word, occasionally a new coinage, was chosen. The distinctive Japanese-style boxed lunch, for example, which was called by its Japanese name, *obentô*, at the end of World War II, briefly metamorphosed into *pyenttwo*, but by the 1980s it had become a *twosilak*, with a native name. Even Western words that had passed through Japan were changed; for example, the pronunciation *seyntha* ‘center’ was altered slightly to *seynthe* to conform better with the English sounds. Nevertheless, remnants of older Japanese vocabulary still remain, often in inconspicuous places. The word for the distinctive wheat noodles known as *udon* is *wutwong*; *sinpwun* ‘social standing’ comes from Japanese *mibun*. 
Today, the proximity of Japan and the freedom of cultural exchange and travel between the two countries has given rise to new kinds of loans. The word thayllenthu ‘television personality’ is from English ‘talent,’ but the usage comes out of the Japanese entertainment world; aynimey ‘anime’ is part of Korean youth culture. But loans also go both ways now. What was once called chōsen-zuke ‘Korean pickles’ has become kimuchi in Japanese supermarkets and restaurants.

Korean is replete with Western loanwords, and such borrowings are increasing in number every day. There are of course the usual international terms associated with a particular professional or cultural field; French words are found in the art world; Italian in music. But it is English that is transforming the face of the language. In today’s South Korea the attitude toward English vocabulary is “total availability,” as someone once described a similar situation in postwar Japan. Virtually any English word is fair game, in conversations or essays, in South Korean culture. Moreover, Koreanized English elements sometimes called “Konglish” are creatively used to make up new words. A mobile phone is a “hand phone”; an ophisuthel (‘office-hotel’) is a Korean kind of pied-à-terre. The majority of such English and Englished usages are undoubtedly nonce words, and most will have a short half-life. But many will also be integrated into the language as Korea’s emerging world culture develops.

7.6.3 Other vocabulary trends

Abbreviations make use of an East-Asian type of acronym that combines the first syllables of the name or term’s constituent elements. Kwongtwong wiwenhoy ‘joint commission’ is shortened to kwong-wi; nwotwong cwohap ‘labor union’ becomes nwo-cwo; pwulkwoki paykpan ‘pulgogi and rice’ is pwul-payk. Such uses of language now characterize the lexicon.

As has already been mentioned, one of the most distinctive characteristics of Korean is its mimetic and onomatopoeic vocabulary. The complex expressiveness with which such words are used – and Contemporary Korean is particularly rich in this vocabulary – is rivaled by that of few other languages. Moreover, mimetic words such as ttallang- ttalang ‘jingle-jingle’ and acang-acang ‘totteringly,’ which typically appear as reduplicated adverbials, can also take the suffixes -kelita or -tayta and be used as predicates: ttalang-kelita ‘[the bell] jingles,’ acang-kelita ‘[the baby] toddles.’ These particular adjectival suffixes first made their appearances with mimetics and onomatopoeia in the textual record around the early nineteenth century.
Additional readings on selected topics

OVERVIEWS

Numerous histories of the language have been written in Korean, including the one on which the structure of the present work is patterned, Lee Ki-Moon’s *Kugŏ-sa kaesŏl* (seventeenth, revised, and updated edition, Seoul: T’aehaksa, 2007; first published in 1961). In addition, the 1972 edition of this work has been translated into Japanese by Fujimoto Yukio (*Kankokugo no rekishi*, Tokyo: Taishūkan, 1975), and into German by Bruno Lewin et al. (*Geschichte der koreanischen Sprache*, Wiesbaden: Reichert, 1977).

The only other in-depth treatment in a Western language is Samuel E. Martin’s *A reference grammar of Korean* (Rutland, Vermont and Tokyo: Tuttle, 1992). Martin’s work combines a structural description of the present-day language, Contemporary Korean, together with historical analyses, treating topics and themes as they have developed over time rather than dividing narrative into historical periods. The romanization and grammatical terminology of Martin’s grammar have become standard in linguistic writing, and we have adopted both in this work as well. Particularly useful is Part 2, the “Grammatical Lexicon,” a 540-page, alphabetized listing of grammatical elements found in Contemporary Korean and historical texts, all illustrated with extensive, translated examples.

Useful chapter treatments of the history of Korean can be found in two general books on Korean, Sohn Ho-Min (Son Homin), *The Korean language* (Cambridge University Press, 1999) and Lee Iksop and S. Robert Ramsey, *The Korean language* (Albany: SUNY Press, 2000). Sohn provides a good overview of the linguistic literature, particularly that dealing with genealogical issues, and his bibliography is excellent. Lee and Ramsey (2000) contains an extensive discussion of the historical periods. Both books include separate chapters on how the various historical writing systems worked.

Finally, special mention must be made of Gari K. Ledyard, *The Korean language reform of 1446* (Seoul: Singu munhwasa, 1998), a book describing the history and background surrounding the invention of Hangul, the Korean
alphabet, in the fifteenth century. Nothing else in English presents so clearly, and in such detail, the philology of that critical period.

COMPARATIVE STUDIES

(1) JAPANESE


(2) ALTAIC


WRITING SYSTEMS

The Korean alphabet is by now so widely known it is given a separate entry in most general treatises on writing. See, for example, Geoffrey Sampson, *Writing*
systems: a linguistic introduction (London: Hutchinson, 1985); Florian Coulmas, Writing systems of the world (Oxford: Blackwell, 1989) and The Blackwell encyclopedia of writing systems (Oxford: Blackwell, 1996); John DeFrancis, Visible speech: the diverse oneness of writing systems (Honolulu: University of Hawaii Press, 1989); Henry Rogers, Writing systems: a linguistic approach (Oxford: Blackwell, 2005). Some of these works also discuss the alphabet’s history, but not in great depth. On the other hand, the pre-alphabetic systems are a different matter entirely, and rarely are idu, hyangch’al, kugyŏl, or kakp’il treated at all in Western-language literature. (See, however, Vos 1964, below, and the chapters on writing in Sohn 1999 and Lee and Ramsey 2000.)

(1) IDU AND HYANGCH’AL


(2) KUGYŎL AND KAKP’IL


(3) ‘THE KOREAN ALPHABET’


SINO-KOREAN

DIALECTS

THE KOGURYŌ LANGUAGE

THE PAEKCHE LANGUAGE


OLD KOREAN (SILLAN)


EARLY MIDDLE KOREAN

Phonological research on this pre-alphabetic stage of the language can be divided into two different approaches: (1) an examination of the information contained in the twelfth-century Chinese booklet, *Jilín lēishi*, and (2) a study of early loanwords into Korean from Mongolian. (For grammatical and syntactic research, see the references listed under “Kugyŏl and kakp’’il”, above.)
(1) JI LIN LEISHI STUDIES


(2) MONGOLIAN LOANWORDS


LATE MIDDLE KOREAN

Research on this first alphabetic stage of the language can be classified generally into studies on (1) the textual record, (2) phonology and grammar, and (3) vocabulary and lexical compilations.

(1) TEXTUAL ANALYSIS


(2) PHONOLOGY AND GRAMMAR


(3) DICTIONARIES AND LEXICAL STUDIES

EARLY MODERN KOREAN


CONTEMPORARY KOREAN

A list of works on Contemporary Korean could be extended almost indefinitely. Those given here are confined to references of the most historically significant kind, with an emphasis on works from the early twentieth century.


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