
Malcolm Sylvan Coxe

Louisiana State University and Agricultural & Mechanical College

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A HISTORY
OF THE SPELLING
OF
ENGLISH PHONEMES

A Dissertation

Submitted to the Graduate Faculty of the
Louisiana State University and
Agricultural and Mechanical College
in partial fulfillment of the
requirements for the degree of
Doctor of Philosophy

in
The Department of Speech

By
Malcolm Sylvan Coxe
M.A., Louisiana State University, 1937
June, 1942
ACKNOWLEDGMENT

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</tbody>
</table>
ABSTRACT

Under present conditions in English orthography, the inconsistencies of spelling are so great as to baffle the average learner, especially the foreigner. In an orderly system of spelling, the sounds of a language would always be spelled in the same way. Thus the vowels in the stressed syllables of receive, believe, reason, and seeing, which all have the same sound or phoneme [i], would be spelled alike, instead of in four different ways. It is this lack of congruity in the spelling of English phonemes which has led to the present investigation. The purpose of this thesis has been to discover the origins and causes of the confusing varieties in English spelling, and to resolve these varieties into categories for easy comprehension and learning.

The method observed in doing this was, in the case of Old English and Middle English, to discover the phonemes of those two phases of the English language by a comparative analysis. Various works and previously made studies regarding the phonologies of Old English and Middle English were scrutinized carefully for the aid they might give in determining phonemes. Once the phonemes were isolated, their spellings were likewise arrived at by comparative analysis.

This was not difficult for Old English, especially for the tenth century West-Saxon dialect, which forms the basis of the present study of Old English, for it is regarded as being
rather consistently phonetic in character. The Middle English phonemes were more difficult to determine, since Middle English is admittedly less phonetic than Old English. The reasons for this are many, among which may be mentioned the influence exerted upon the spelling of natively English words by the spellings of French words taken over by Middle English, and the influence of internal sound-changes that were occurring in English words without a corresponding change in spelling to keep the language phonetically pure. The ordinary "standard" phonemes of present-day English were used for the New English section of this work.

Various historical and phonological studies of the English language were used chiefly in arriving at the spellings of the phonemes. After the phonemes were satisfactorily established, the spellings of Old English and Middle English were categorized essentially upon a historical basis. For New English, two methods were adopted in the establishment of categories. One was to observe the historical (etymological) facts which would aid in classification, and the other was to mention any contextual data pertinent to that classification. By so doing, the historical aspect of the study was consistently carried forward from its beginning in Old English, and was combined, in the New English, with such contextual aspects as would serve further to simplify the mysteries of English spelling of the present time.

The reasons for the confusion and lack of phonetic spelling in New English lie, as previously noted, in the fact that the
spelling of the language has remained practically static since
the introduction of printing in the fifteenth century, while
sound changes or habits in pronunciation have continually pro-
gressed. An illustration is the change of [i] to [aɪ]. There
was already in the language an etymological [aɪ] diphthong, as
in Mai [mɛi]. The spelling of this diphthong is consistent
with its pronunciation; but when [i] changed to [aɪ] there
was introduced a second [aɪ] diphthong spelled ð and ɣ as in
mine [maɪn] and my [mɛi]. Thus consistency was violated. This
invasion of phoneme on phoneme, though gradually done, was
not accompanied by corresponding changes in spelling, and so
produced a great deal of confusion in English orthoepy. The
result is that while the spoken language is what may be called
modern, the written language is medieval. It is believed that
the system of categories established in this thesis will help
the learner measurably in using English spelling in its present
form.
ABBREVIATIONS

AN. ..................Anglo-Norman
Br. ..................British
C. ....................Century
Dan. ..................Danish
E. ....................English
ep. ..................epenthetical
EME. ..................Early Middle English
ex. ..................example
Fr. ..................French
Gr. ..................Greek
Indo-E. ..............Indo-European
Kent. ..................Kentish
L. ....................Latin
ME. ..................Middle English
ms. ..................manuscript
mss. ..................manuscripts
NE. ..................New English
OE. ..................Old English
OFr. ..................Old French
ON. ..................Old Norse
Prim. G. ............Primitive Germanic
Prim. OE. ...........Primitive Old English
Prim. West G. ........Primitive West Germanic
Russ. ..................Russian
Sw. ..................Swedish
VL. ..................Vulgate (Vulgar) Latin
W. ..................Welsh
West G. ..............West Germanic
INTRODUCTION

The object of this work is to analyze the spelling of the various sounds of speech which are to be found in three general historical phases of the English language, and to arrange them in phonemic categories for more convenient study and application. The first of these historical phases is Old English; the second, Middle English, and the third, New English.

Old English, which forms the basis of the first chapter of this work, is the name of the Germanic language spoken in England from about the middle of the fifth century to about the middle of the twelfth century. Old English was composed of four dialects: Northumbrian, Mercian, Kentish, and West Saxon. The Northumbrian formed the basis of modern Scotch and Northern English, and Mercian of Standard literary English. The literature of Old English is chiefly extant in West Saxon; however, the poetry, and some of the prose, contains forms from other dialects, mainly from the Northumbrian.

This study uses West Saxon as a norm. There appears ample justification for this.

During the first centuries after the conquest the Angles were the dominant power politically, with the capital at York; they were also leaders in learning and literary culture. Almost all the early poetic literature originated in the North; the epic Beowulf, and the two chief poets of the time, Caedmon and Cynewulf, were Anglian. From the Angles the whole country came to be called England (England), and the language English (English). Then in the ninth century the supremacy passed to the West Saxons, and Winchester (Wintonaceaster), the capital of Wessex, became the capital of England. The name Ongulæaxan (Angulæaxan), "Anglo-Saxons," arose as a collective name, but was used only in a political sense; the West Saxons, as the Angles, continued to call themselves and their language English. Culturally, too, the leadership had passed to the West Saxons, and they became the creators of the first literary prose in English; and there was produced a prose literature of considerable extent. All this is intimately connected with the name of Alfred the Great (born 849, became king 871, died 901), who himself wrote, translated, or inspired nearly all the prose writings of the Alfredian period. Also the poetry of the Anglian era was later rendered into West Saxon; practically all of this early poetical literature is preserved to us only in West Saxon. 4

Further to bolster the view that the Old English of the tenth century West-Saxon dialect should be regarded as a basis for the Old English portion of this study, the

5. Sievers, An Old English Grammar, 244e.
following is submitted:


It may be said that the language of manuscripts is fairly phonetic, and that, on the whole, the writers of original works attempted to render the actual sounds, as far as the alphabet, somewhat inadequate for its purposes, would permit. The exact pronunciation of the Old English vowel and diphthong system can be but approximately represented. In this regard, a view of some of the best efforts of various scholars in the field of Old English will reward close scrutiny.


The following table, modified somewhat, contains the Old English vowels and diphthongs as they are listed by Cook:

<table>
<thead>
<tr>
<th>Vowel</th>
<th>Pronunciation</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>[a]</td>
<td>habban [hav:әn]</td>
</tr>
<tr>
<td>a</td>
<td>[ә]</td>
<td>an [әn]</td>
</tr>
<tr>
<td>e</td>
<td>[e]</td>
<td>xt [әt]</td>
</tr>
<tr>
<td>e</td>
<td>[ех]</td>
<td>әr [ә:ә]</td>
</tr>
<tr>
<td>e</td>
<td>[e]</td>
<td>help [hәlp]</td>
</tr>
<tr>
<td>i</td>
<td>[i]</td>
<td>he [he]</td>
</tr>
<tr>
<td>i</td>
<td>[i]</td>
<td>in [әn]</td>
</tr>
<tr>
<td>o</td>
<td>[o]</td>
<td>god [gәd]</td>
</tr>
<tr>
<td>o</td>
<td>[o]</td>
<td>god [gәd]</td>
</tr>
<tr>
<td>u</td>
<td>[u]</td>
<td>full [fәl:]</td>
</tr>
<tr>
<td>u</td>
<td>[u]</td>
<td>dun [dun]</td>
</tr>
<tr>
<td>y</td>
<td>[y]</td>
<td>dynn [dәn:]</td>
</tr>
<tr>
<td>y</td>
<td>[y]</td>
<td>hyd [hyd]</td>
</tr>
</tbody>
</table>

The Diphthongs

<table>
<thead>
<tr>
<th>Diphthong</th>
<th>Pronunciation</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>ea</td>
<td>[әә]</td>
<td>sall [sәl:]</td>
</tr>
<tr>
<td>ea</td>
<td>[eә]</td>
<td>neah [neә]</td>
</tr>
</tbody>
</table>

9. Ibid., 10.
 eo [əʊ] as in _eom_ [əʊm]
 eo [øː] as in _freond_ [fɾeʊnd]
 ie [ɪə] as in _fiend_ [fɪənd]
 ie [ɪə] as in _nied_ [nɪəd]

The OE. consonant system as represented by Flom, modified by the addition of phonetic symbols, was as follows:

The Consonants

<table>
<thead>
<tr>
<th>Lab.</th>
<th>Dent.</th>
<th>Pal.</th>
<th>Velar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plos.: vs.</td>
<td>p [p]</td>
<td>t [t]</td>
<td>c [k]</td>
</tr>
<tr>
<td>vd.</td>
<td>b [b]</td>
<td>d [d]</td>
<td>g [g]</td>
</tr>
<tr>
<td>Spir.: vs.</td>
<td>f [f]</td>
<td>θ [θ], s [s]</td>
<td>h [h]</td>
</tr>
<tr>
<td>vd.</td>
<td>v [v]</td>
<td>θ [θ], s [s]</td>
<td>j [j]</td>
</tr>
<tr>
<td>Nasals</td>
<td>m [m]</td>
<td>n [n]</td>
<td>ng [ŋ]</td>
</tr>
<tr>
<td>Liquids</td>
<td>l [l], r [ɾ]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Semivowels</td>
<td>w [w]</td>
<td>j [j]</td>
<td></td>
</tr>
</tbody>
</table>

To these must be added o (ɔː) [ɔː], oʊ [aʊ], ʌ [ʌ], and æ [æ].

This work uses schwa [ə] as the second element of the diphthongs ea, eo, ie, both long and short. In support of this practice, the following excerpts are submitted:

The second vowel in each diphthong is scarcely heard in pronunciation, the first element being the one which receives the stress.

The vowel of every syllable is to be pronounced, but in an unstressed syllable the sound is less distinct. 11

Here Cook seems to be confused about the value of in diphthongs. If he meant [ə] to be used in ea[æə] as well as in eo [εə], the table of diphthongs above is not consistent with his discussion immediately following it.

In the discussion on breaking, Cook, by indirection, has more to say about what might be the use of [ə] as the second element of diphthongs, for example:

Although these consonants have at present a pronunciation which cannot be called guttural, yet it is possible to pronounce a sentence like 'What ails you?' in so drawing a manner, especially as regards 'ails,' that this word shall have nearly the sound of a-uls. The obscure uh-sound thus developed may be compared to the second element of the diphthong in ea and eo. 12

The scheme for the diphthongs presented below is taken from Flom, who apparently feels that the second

12. Ibid., 17.
element of all the Old English diphthongs was [ə]. Only the tenth century evaluation of the diphthongs is given.

\[
\begin{align*}
\text{ea} & \quad [æː] \text{ as in } \text{earm } [əːrm] \\
\text{eo} & \quad [əː] \text{ as in } \text{earde } [əəɾdə] \\
\text{ie} & \quad [iə] \text{ as in } \text{hierde } [hɪəɾdə] \\
\end{align*}
\]

Furthermore Flom has this to say about the diphthongs:

The diphthongs are falling diphthongs, i.e., the stress is on the first part. The diphthong [æː], which derives from Gmc. au, by way of PrEnglish-Frisian (hence continental English) [æː] and [əː], was pronounced [æː] in PrOE, and is so written sometimes in the earliest records. By about 700 the sound [æː] was established; after a while the writing [æː] as less cumbersome than [æː] came into use. In the course of the tenth century (perhaps early in the century) the sound was probably everywhere [æː] (i.e., [æː]); the writing [æː] continued down to latest OE. 14

Another piece of evidence in support of an earlier statement that Old English was a phonetic language is the following excerpt from Bright’s introductory remarks:

The spelling of Anglo-Saxon before Alfred’s reign, and to some extent after it, approached a

14. Flom, Old English Grammar. II.
phonetic transcription of the actual speech of the times. As most of the men who composed in the vernacular were probably accustomed to writing Latin rather than Anglo-Saxon, authors in setting down their works transcribed their pronunciations of the Anglo-Saxon words, to a considerable extent at least, with the sound values of the Latin letters in mind, and the scribes when they copied the originals altered them to reproduce their own pronunciations in the same manner. Evidence for this conclusion is found in the divergent spellings of the various dialects and in the variant spellings even on the same page of a West-Saxon text. (In the ninth century, however, largely through Alfred's influence, the spellings of Anglo-Saxon tended to become 'fixed,' and after his time— even more after Aelfric's—the language had a standard spelling). Because of this 'phonetic' spelling, we can form a fairly exact impression of the pronunciation of Anglo-Saxon. 15.

Concerning the diphthongs, Bright makes the following statement: "These diphthongs (long and short) receive the stress upon the first element; the second element, being unaccented, is very much obscured in pronunciation." 16

This is interpreted in the body of the text on Old English, Chapter I, to be [ə] and is so used throughout.

It is also observed also in the chapter on Old English that vowels of unstressed syllables, in words of more than one syllable, are given the value of [ə]. Evidence for this is found in the following:

15. Bright, Anglo-Saxon Reader, ix-x.
16. Ibid., xiv.
Endsilben sind in der Regel tonlos: **tungha** [tungha], **wudu** [wudu], **heafod** [heafod], **cyning** [cyning], **grest** [grest]. 17.

Zur Zeit Alfrede ist aber schon Schwächung eingetreten, welche unter Umständen bis zur ganzlichen Tonlosigkeit fortschreiten kann; daher begegnet schon bei Alfred z. B. **opera** [opera] und sogar **opra** [opra] neben **operra** [operra]. 18

....'baptism' by fuluht or the last syllable being phonetically obscured, fulluht, and John the Baptist was called Johannes se **fulluhtere**. 19

The words fulluht, Johannes, and fulluhtere in Jespersen may be interpreted as pronounced **[f̂ulæxt]**, **[johanes]**, and **[f̂ulæxtare]** respectively.

The laws relating to vowels hold only of stressed syllables. In unstressed syllables, especially in the second syllable of trisyllabic words, the vowel is liable to pass into a neutral sound, often represented by e, or to disappear altogether. 20

Further:

Old English was still a highly inflected language....Nevertheless there were traces already in the earliest Old English of the falling off or weakening of inflections....No doubt these

Inflections were weakened and even lost owing to the fact that they were unstressed, just as in Modern English the vowel 'o' in the first syllable of 'photograph' is weakened in the word 'photography' because it occurs in a syllable which has become unstressed.  

Finally:

A word (accordingly) like fárope with one short accented syllable and two unaccented syllables has the same metrical value as föron with one long accented and one unaccented syllable, or a combination like se bé wæs is rhythmically equivalent to séog wæs.

The foregoing excerpts make it apparent that Old English contained some sort of a neutral vowel sound, found not only in diphthongs but in simple vowels of unstressed syllables as well. For this reason the symbol [ə] is used throughout the Old English section, Chapter I, to indicate the unstressed vowels.

The second phase of this study is concerned with Middle English, its sounds and spellings. The basis for the work on Middle English is chiefly the language at the time of Chaucer, the thirteenth and fourteenth centuries. Middle English of this period had achieved the status of a literary language, of which the chief dialect was

East Midland and the chief exponent Chaucer (1340-1400).

The tables that follow contain the standard ME. vowels and diphthongs according to Wright and modified by the addition of phonetic symbols.

<table>
<thead>
<tr>
<th>Short Vowels</th>
<th>Long Vowels</th>
</tr>
</thead>
<tbody>
<tr>
<td>a [a]</td>
<td>a [a]</td>
</tr>
<tr>
<td>e [ɛ]</td>
<td>e [ɛ]</td>
</tr>
<tr>
<td>i [ɪ]</td>
<td>e [ɛ:]</td>
</tr>
<tr>
<td>o [o-ɔ]</td>
<td>o [ɔ]</td>
</tr>
<tr>
<td>u [u]</td>
<td>o [ɔ:]</td>
</tr>
<tr>
<td></td>
<td>u [u]</td>
</tr>
<tr>
<td></td>
<td>u [y], [Y]</td>
</tr>
</tbody>
</table>

The Diphthongs

| ai           | [aɪ]        |
| ot           | [ɔt]        |
| oi           | [ɔɪ]        |
| ui           | [uɪ]        |
| au           | [au]        |
| eu           | [ɛːu]       |

---


The following table contains the ME. consonant sounds as listed by Wright and modified by the addition of phonetic symbols:

<table>
<thead>
<tr>
<th></th>
<th>Inter-</th>
<th>Dent.</th>
<th>Gutt.</th>
<th>Pal.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plos.:</td>
<td>vs.</td>
<td>$p$</td>
<td>$t$</td>
<td>$k(c)k$</td>
</tr>
<tr>
<td>vd.</td>
<td>$b$</td>
<td>$d$</td>
<td>$g$</td>
<td></td>
</tr>
<tr>
<td>Spir.:</td>
<td>vs.</td>
<td>$f$</td>
<td>$s(c)s$</td>
<td>$z(gh)z$</td>
</tr>
<tr>
<td>vd.</td>
<td>$v(u)$</td>
<td>$z$</td>
<td>$z$</td>
<td>$y[j]$</td>
</tr>
<tr>
<td>Nasals:</td>
<td>$m$</td>
<td>$n$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liquids:</td>
<td>$l$</td>
<td>$r$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Semi-v.:</td>
<td>$w$</td>
<td>$y[j]$</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

To these must be added the affricates $[tʃ]$ (written $ch$, $cch$, $tch$), $[dʒ]$ (written $g$, $gk$, $j$), and the aspirate $h$ $[h]$.

Concerning the phonetic character of Middle English, the following statements are presented:

In the first place, Chaucer's pronunciation, like that of Anglo-Saxon, was much more nearly phonetic than that of the present day. All syllables are pronounced. The final -e, which at this time was beginning to be dropped colloquially, still counted metrically, as it does in modern French, and was pronounced like a in China except before a following word with an initial vowel or h. 26

But in the Middle English period apparently the stress of words began to become more like that of Modern English, to be placed strongly and heavily on the first syllables of words, with a consequent obscuring and weakening of the later syllables of the words. 27

In the earliest period of Middle English, and up to the time of Chaucer, scribes practiced great individuality with respect to spelling, apparently in the effort to write phonetically.

Erst durch die Ausbreitung der englischen Schriftsprache im Laufe des 15. Jahrhunderts und die Einführung der Buchdruckerkunst durch Caxton wurde allmählich eine größere Gleichmässigkeit in der Schreibweise des Englischen hergestellt. 28

Further evidence that certain scribes were seeking a method of more careful transcription and rendition of the

26. McKnight, Modern English in the Making, 37.
sounds of language long before either Chaucer or the advent of printing is seen in the following:

And the evidence of the Ormulum as to the condition of language in the district to which it belongs is all the more valuable from the fact, that its author shews himself to have been to a remarkable degree concerned for linguistic accuracy. He carefully marked quantity by doubling a consonant after a short vowel, when the consonant was final, e.g. wasa. or was followed by another consonant, e.g. werro haffden; when the consonant came between vowels, it remained single, e.g. fele. His interest in the matter is shewn by the appeal he makes to anyone who should transcribe his work:

he loke well patt he
An boostafte write twyges,
Egghwar þær itt uppo þiss boc
Iss writenn o þatt wise
Loke he well patt éht write swa,
Forr he né man nohht elles
Oon English writenn riht te word,
þatt wite he well to sôpe. 29

To quote from Wright:

In OE. and early ME. the orthography was to a great extent phonetic, but during the ME. period it became less phonetic, partly through the influence of the French system of orthography upon it, such as the writing of û, ül for ë, ou for ë, o for u, ie for ë, c for s etc., and partly through sound-changes which took place without the corresponding changes in the spelling. Some attempt was made during the ME. period to distinguish between long and short vowels, but onlyOrm (c. 1200) made a systematic attempt to indicate long vowels by writing double consonants after short vowels. 30

The following are interesting observations:

......I hold (a) that we have very slight and
scrappy knowledge of our ancestors' pronunciation
at any time; (b) that even if an absolute standard
of contemporary pronunciation could be reached, it
is quite intolerable that any particular generation
should deform or destroy the historical continuity
of the written language, in order to inflict that
pronunciation on its successors; (c) that dead lan-
guages can be best enjoyed as literature when they
are pronounced by each nation as it pronounces its
own living language. 31

And further:

It has been objected to me that we do know, and
not guess, that 'welfful' was trisyllabic, and so on.
But I think I can hit this ball well to the bound-
ary. In Chaucer's time, if not by Chaucer, we know
that these e's were getting obliterated, and what-
ever he might do in deliberate verse, he might
easily neglect them in a mere vague haunting echo
of memory. Indeed he seems actually to have written
'welfful' elsewhere. 32

In a wider consideration of the phonological aspects
of Middle English unstressed e, which attributes to the
language the reference: the period of "leveled inflections;"
which means that no longer did words have case-endings for
the purpose of clarifying meanings, the following statements
are enlightening:

32. George Saintsbury, A History of English Prosody,
33. Krapp, Modern English, Its Growth and Present
Use, 62.
Der schwächere Nebenton, der im Altenenglischen noch auf der Endsilbe von zwei- oder dreisilbigen Wörtern mit kurzer Stamm-oder langer Mittelsilbe ruhte und im Alliterationsvers eine Hebung tragen durfte, ist in mittelenglischer Zeit nicht mehr vorhanden. 34

If one pronounces in reading Chaucer's verse all the final e's that are grammatically or etymologically justifiable, the metrical structure of the verse is often seriously impaired or entirely destroyed. It is clear that Chaucer did not intend that every possible final e should be sounded. 35

Infolge der Beschleunigung des Redetempos wurde es immer häufiger, dass einsilbige Formwörter sich an vorausgehende Vollwörter anlehnten, und die Folge war Reduktion ihres Vokals zu [ə] oder [ø]. 36

Auslautendes e ist in romanischen Wörtern noch früher abgefallen als in germanischen, besonders nach st, ce [s] und nach Vokalen. Bei Chaucer allerdings hat es seine lautliche Geltung noch durchaus gewahrt, und die Reime auf ce [ce] sind von denen auf e, die Reime auf ye von denen auf y streng getrennt. Ex. baner(e) [banər(ə)], face [fas(ə)]; maladie [maladi(ə)], storie [stɔri(ə)], story [stɔrɪ], etc. 37

Such is the situation with respect to certain phonological and phonetic aspects of Middle English. Indeed, the language was not thoroughly phonetic; it was much less so

34. Kaluza, Historische Grammatik, II, 10.

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than Old English; how much less phonetic is to be seen at a glance in comparing the two.

The third phase of this study has as its subject, New English, i.e., the language of today. The chief consideration is the orthography and pronunciation of present-day language. The pronunciation of New English is not consistent with the way in which it is written or spelled. In a good system of orthography, the same letter would always represent the same sound, and the same sound would always be represented by the same letter. In New English, however, the same letter or combination of letters is often used to represent many different sounds, and the same sound is found to be represented by many different letters, e.g., the letter $e$ is sounded differently in each of these words: mete [mit], get [get], here [hɪə(r)], serve [sɜ(r)v], etc; the sound [i] is spelled differently in each of these words: machine [məʃin], beat [bit], seek [sɪk], ceiling [ˈsɪliŋ], etc.

It is apparent that the New English system of spelling is not consistent with its pronunciation; moreover, it is obvious that as a result of this inconsistency, the language is not phonetic. This fact has long been recognized and various attempts have been made in the last four or five hundred years to bring the English system of orthography up to date and to reshape it along a more phonetic pattern.

38. McKnight, Modern English in the Making, 428 ff.
The following tables represent the NE. phonemic system of vowels, diphthongs and consonants:

The Vowels

| i | u |
| l | U |
| e | ə |
| ə | ɔ |
| ə | ɔ |
| a | a |

The Diphthongs

| eː |
| aː |
| aU |
| ɔː |
| ɔU |

The Diphthongs (before r)

| aː |
| ɔː (əə) |
| Uə |
| ɛə |

The Triphthongs (before r)

| aːæ |
| aUə |

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The Consonants

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<td>Flos.:</td>
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<td>Spir.:</td>
<td>vs.</td>
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<td>vd.</td>
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<td>Nasals:</td>
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<td>Semi-vow.</td>
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<td>Affricates:</td>
<td>vs.</td>
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<tr>
<td></td>
<td>vd.</td>
<td></td>
<td></td>
<td>dʒ</td>
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With respect to the development of New English orthography, the following from Wright is pertinent:

Early ME. orthography was based on that of late ME., and it became to a great extent fixed at the time of the invention of printing. The first English book was printed by Caxton in 1473-4, and his system of orthography was with slight variations a continuation of the ME. system. In the sixteenth and seventeenth centuries many attempts were made to put the orthography upon a more phonetic basis, but they failed just as later attempts have hitherto failed. Chiefly through the influence of the great printing-houses a few improvements were gradually introduced and permanently fixed between 1500 and 1650, such as the omission of final -e in a great number of words, the writing of the digraph ea to represent what was at that time long open e, and of the digraph ao to represent what was at that time long open o, the simplification of final double consonants after short vowels, the exclusive use of ñ as consonants and i, u as vowels, and the writing of -y for final -i (-ie). Apart from such minor changes the orthography has practically remained unchanged since the sixteenth century, although the sounds, especially the vowel-sounds, have undergone radical changes between that period and the present day. The result is that a great number of changes have taken place in the pronunciation without the corresponding changes in the spelling, and quite a number of changes have taken place in the spelling without the corresponding changes in the pronunciation. Consonants have changed comparatively little in the history of the English language, but vowels have continuously been on the change, and still are so. Therefore in a language like English the consonants chiefly form, as it were, the framework of the language, and the vowels are the clockwork or living organism. This is quite different from a language like French, where the consonants equally with the vowels have undergone great and radical changes in passing from popular Latin to the French of the present day.


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Many attempts have been made by various people to write more or less phonetically, some of them unconsciously. That is, some of these writers were less well educated than others; consequently their spellings may be thought of as an unconscious effort in the direction of phonetic analysis. Private personal and business letters dating from the fifteenth century furnish much of the proof that spellings do not always indicate the pronunciations of words. However, tradesmen, housewives, and others who had little schooling, may be expected to write more phonetically than others. Such scribes may be expected also to reveal sound changes that occur in the vowels and diphthongs better than those who wrote in the literary fashion of the day.

Changes in pronunciation have been recorded, not so much within the educated system, as in colloquial deviations from it. The world has always had its poor spellers, who in their time are usually mocked at or at least amusingly tolerated—'we have a tedious ill spell'd letter from a dear sister,' says Edmund Verney's Oxford tutor in scorn— but it is they who after all perform for modern linguistic study the signal service of intimating in their 'occasional spellings' the pronunciation of their day. 40

As evidence that colloquial speech is frequently rendered somewhat phonetically and so becomes a valuable

aid to study, the following letters are submitted:

From Margaret Paston
To her husband, John Paston

Norfolk. 23th Sept. 1443.

Ryth worshipful hasbon, I recomande me to yow, desaryng hertely to her of yowr wilfar, thanckyng God of yowr a mendiynge of the grete dysese that ye have hade, and I thancke yow for the letter that ye sent me, for be my trowthe my moder and I wer nowth in hertys es fro the tyme that we woste of yowr sekenesse, tyl we woste verely of your a mendiynge. My moder be hestyd a nodyr ymmage of wax of the wytte of yow to oyer Lady of Walsyngham, and sche sent iiij nobelys to the iiij Orderys of Frerys at Norweche to pray for yow, and I have be hestyd to gon on pylgress fourys to Walsingham, and to Sent Levenardys for yow; be my trowth I had never so hevy a sesyn as I had from the tyme that I woste of yowr sekenesse tyl I woste of yowr a mendiynge, and Tyth myn hert is in no grete esse, ne nowth xal be, tyl I wott that 7e ben very hal....

I pray yow hertely that [ye] wol wochesaf to sende me a letter as hastely as ye may, yf wry[t]yn be non dysese to yow, and that ye wollen wochesaf to sende me worde quowe your sor dott. Yf I mythe have had my wylle, I xulde a seyne yow er dysyme; I wolde ye wern at hom...lever dan a goune, 7ow it wer of scarlette.....

Yorys,
M. Paston.
The Paston Letters 41

The word hestyd [héstyd] in the line beginning my moder be hestyd, etc., means promised or vowed.

41. Ibid., 24-25.
From Margaret Paston,  
To her son, Sir John Paston

Norfolk.  
29th Oct. 1466

I grytte you well, and send you God ys blessyng, and myn, desyryng you to send me wyrtyng you to send me wyrtyng how that ye spede in youre maters, for I thynk ryght leng tyl I here tydyngys from you; and in alwyse I avyse you for to be ware that ye kepe wysly your wrytyngys that ben of charge, that it com not in her handys that may hurt you herafter.  Your fader, whom God assole, in hys trobyll seson set more by hys wrytyngs and evydens than he dede by any of hys mowe&bell godys....

Item, I wold ye shold take hyde that yf any processe com owte a yenst me, or a yenst any of tho that wer endyted a fore the coroner, that I myght have knowlych therof, and to purvey a remedy therfor....

And at the reverens of God, sped your maters so thy terme, that we may be in rest herafter, and lette not for no labour for the season, and remember the grete cost and charge that we have had hedryr toward, and thynk verely it may not lenge endur. Ye know what ye left when ye wer last at hom, and wyte it verely there ya no more in thy countray to bere owte no charge with. I avyse you enquer wysely yf ye canne gyte any more ther as ye be, for els by my feth I feer els it will not be well with ous; and send me word in hyst hough ye doo....

wrtyen at Caster, the moreu next after Symon and Jude, wher as I wold not be at thyse tyme but for your sake, so mot I ches.

By your moder.

The Paston Letters 43

Twenty—three years had elapsed between the writing of these two letters. At the end of this short period Lady Margaret Faston made use of certain advancements or simplifications in spelling, notably in such words as you, your, ty1; auowe, hough = how.

43. Davies, English Pronunciation, 45-46.

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The following from a diary offers variety in the spellings of the same word:

From Henry Machyn's Diary


The xvij of Juin ther wher sett on the pelore [a man and] a woman; the woman boythe a pesse of mottun [and when she] had ytt, she toke a pesse of a tylle and frust yt [into the] myds of the mottun, and she sayd that she had ytt of butcher, and would ha]ve ym punnyssyd; for ytt was hangyd over the pelore, and so there wher they sett boythe...

The furst day of July ther was a man and a woman on the pelere in Chepe-syd; the man sold potts of straberries, the whyche the pott was nott alff fulle, but fyllyd with forne; the man nam ys Grege; sum-tyme he con[terfeited] ym selffe a profett, for he was taken for [it, and] sett by the pelere in Sowthwarke....

The xv day of July was wypyd a yong man and ij woman for vyssyones and synes; and the[n] she was putt on the pelorie, for she wold [have] poyseyd her husband, for the same woman [permitted] her servand to com in to here. 44

The letter below is written by one whose social station is more to be admired than that of the preceding writer, who was an undertaker. A span of 134 years separates them.

From Edmund Verney, To his son, Edmund, at Oxford University

Bucks and London. 6th July 1686.

Child--I heard that the players are gon down to Oxford, but I am unwilling that you should go to see them act, for fear on your coming out of the hot play house into the cold ayer, you should catch harm, for as I did once coming out of the

44. Ibid., 87.
Theatre at a publick Act when it was very full
and staminghot and walkin a Broad in the cold,
and gave me such a cold that it had Likt to a
cost me my Life. Your best way in Such a cold
is to go hom to your one chamber directly from
the play house, and drink a glass of Sack, there-
four Be sure you send your Servant At your hand
for a bottle of the Best Canary and keep it in
your chamber for that purpose. Be sure you
drink no Kooleing tankord nor Cooling drinks what
so ever.--harkon Thou unto the voyage & advise of
mee Thy ffather, Loving Thee Better then him selfe.

Edmund Verney. 45
The Verney Memoirs.

The following letter represents early eighteenth
century colloquial writing. By this time spelling had
become fairly well stabelized. There is less to claim
interest in the spelling of this letter than there is in
homely expression and pointed remark.

From Lady Strafford,
To her husband, Lord Strafford

...I hear the Duke of Argile makes the greatest
prodistations of friendship for you that ever was.
My father is layd up with the gout: I believe I
shall jumble my guts out between this and Russell
street, for since my fathers has been ill I hav
gon every day. Here is a new play which has taken
extremly, call'd the distrest mothere. I had not
seen it tell last night for I bon't much love
Traidys, but I think it's a very good won. Lady
Massam is very ill and her son is like to dye.
'Tis said the Duchesses of Somerset and Shrewsbery
is at great difference with won anothere. I still
am told you are to be Master of the Horse. I wish
the Queen would make me a Lady of the Bedchamber.
I wonder Lady Scarborough keepes her place, for

45. Ibid., 131-132.

xxxii.
Lord Scarborough oposes the Queen in everything that's in his power with all the violence in the world,... I fancy by this time you'll think I never intend to cease tormenting you with my nonsence. I fancy every letter you have from me you find me out to have less witt than you thought before; but you have won thing for your comfort, which is, the less witt wemen has the better wives they make, so according to that rule you are a most happy man in your choise.

The Wentworth Papers

In view of the fact that Old English and Middle English are thought to be nearly always phonetic in their spellings, the phonemic classifications of those spellings present no difficulty. New English, on the other hand, which is admittedly non-phonetic, does present some difficulties. The problem, chiefly, is one of proper categorizing variously spelled speech-sounds. The phonemes listed as being representative of New English pronunciation are the standard ones. No dialectal pronunciations are given in the regular order of illustrative words; when substandard or variant pronunciations are mentioned they are then and there marked as such.

The chief sources of illustrative word lists in the three chapters are various grammars, readers, and dictionaries relative to all three stages of the history of the English language. For the Old English period the

46. Ibid., 146-147.

There are, roughly, 9,000 illustrative words used in the text. Some have been used more than once; such words, however, are intended to represent one or more phonemic concepts. An example of what is meant is found in the word *analysis*. The first a represents the phoneme [æ], whereas the second a represents the phoneme [ə]. There are, however, relatively few repeated instances of this kind.

The International Phonetic Alphabet has been used throughout the text of this work to indicate pronunciations.
CHAPTER I

THE PHONEMIC SYSTEM
of
OLD ENGLISH

A. The Vowels

OE. 1 [i] has the following sources:

a) From Prim. G. i [i] as in bitan [bitan], ie [ie]
(NE. ice [ai]), min [min], lif [lif], slidan
[slidan], time [time], wip [wip].

b) From Prim. G. i(m), i(n) [im], [in] with following
i, e, as in fif [fif], like [ligh], sip [siθ],
sifen [siven], wip [swip].

c) From OE. 1(æ) [a], as in bridæl [bridæl], rinan
[rînan], frinan [frînan], sipæ [sîθæ].

d) From older ie [iæ] which occurred as 1-umlaut of
ee [ææ], as in gelîfan [gelîvan], hiran
[hîran], nid [nid].

1. The references regarding sound-values are
Cook, Sievers, and Kaluza, unless otherwise noted.
e) From Latin e(oe) [e] (iο) in some loan words, as cipe [kipə], pin [pin], side [side].

\[y\]

OE. y \([y]\) has the following sources:

a) From i-umlaut of Prim. G. u [u] as bryd [bryd], mys [mys], ryman [ryman], fryr [fyr].

b) From i-umlaut of u [u] (Prim. G. un [Un]) before ū, ā, as cypan [kypən], yst [yst], fyasan [fyən], wyscan [wyʃən], dystic [dystɪk].

c) From older OE. ie [iə], as gelyfan [ʒeljən], hyran [hɪrən], nyd [nyd].

d) From i-umlaut of OE. u [u] for Prim. G. o [o] finally after a consonant followed by an original w in monosyllabic words, as ov [ky], plural of cu [ku].

\[i\]

OE. i \([i]\) has the following sources:

a) From Prim. G. i [i], as biddan [bɪdən], blind [blind], olif [ɔlɪf], cribb [krɪb], riden [rɪdən], bindan [bɪndən].

b) From Prim. G. e [ɛ] with following m, as niman [nɪmən], rima [rɪmə].

c) From Latin e [ɛ] with following nasal plus a consonant, in some loan words, as mint [mɪnt],
OE.  $Y$ has the following sources:

a) From i-umlaut of $u$ [$U$], as *byogan* [bYdjan],
   *cyning* [kYning], *gylden* [gYldan], *wylle* [wYl:an], *flyht* [fYght], *fyllan* [fyl:an],
   *cyssan* [kYssan].

b) From older OE.  $ie$ [$iə$], as *fylst* [fylst],
   *yldra* [Yldra], *dyrne* [dYrne], *wyrman* [wYrman].

c) From OE.  $u$ [$u$] (for older $iu$ [iU]) from Prim. G.  $i$ [$i$] before $r$ followed by a consonant, the whole
   preceded by $w$, as *wyrse* [wYrse], *wyrbe* [wYrbe],
   *wyrpsta* [wYrpsta].
[e]

OE. e [e] has the following sources:

a) From Prim. G. e [e], as her [her], med [med], fen [fen], slep [slep], red [red].

b) From i-umlaut of Prim. G. o [o], as bec [bek], fet [fet], deman [deman], betan [betan], sped [sped], gled [gled], gretan [gretan].

c) From i-umlaut of o [o] (Prim. G. nasalized a [ā]), as ehtan [ehtan], feth [feth], hela [hela].

d) From i-umlaut of o [o] (Prim. G. æ [æ]) with following nasals, as Owen [kwen], wenan [wenan], bremel [bremel], oweman [kweman].

e) From i-umlaut of o [o] (Prim. G. am, an with following ʃ, ʒ, s) as sefte [seft], tek [tek], ges [ges], est [est], neban [neban], smepe [smepe].

f) From OE. æ [æ], as bredan [bredan], ren [ren], stredan [stredan], pen [pen].

g) From lengthening of OE. final e [e] in monosyllables, as he [he], me [me], pе [pe], we [we], se [se].

h) From early WS. ea [æː] (Prim. G. au [au]) with following o, ə, h and preceding o, ə, æ, as becen [bekên], eke [eke], heh [heh], cepian [tʃepiæn], set [set], sceæ [ʃe].
OE. ə [ɛ] has the following sources:

a) From Prim. G. ə [ɛ], as beran [beran], weg [we:], efen [evan], fell [fɛl], eegl [esil], weder [wêdər], wer [we:], west [west].

b) From ɨ-umlaut of ə [ʌ], as bedd [bed:], here [hεɾ], leggan [lêgən], twelf [twelf], webb [web:].

c) From ɨ-umlaut of a (o) [o] ([ɔ]), as ende [ɛnde], bæn [bæntʃ], sendan [sændən], ence [ɛnθ], henn [hεn:], menn [mɛn:].

d) From ɨ-umlaut of o [ɔ], as ele [ɛle], exen [ɛksɛn], mergen [mɛrgən], eves [ɛves].

OE. æ [æ] has the following sources:

a) From Prim. G. æ [æ], as bæron [bæ:ɾan], cowædon [kwæ:dən], dæd [dæ:d], rædon [ɾæ:dən], æl [æ:l], efen [æ:vən], hær [hæ:r], weg [wæ:j].

b) From ɨ-umlaut of a [a:] (Prim. G. ai [ai]), as dælan [dælæn], hælan [hæ:læn], hæp [hæp], fleæo [flæ:]. æx [æx:]

c) From ɨ-umlaut of a [a:] (Prim. G. æ [æ] before w), as omæwæp [kwæ:wæp], læwan [læ:wæn].

d) From OE. æg [æj], as mæden [mæ:ðæn], sade
[ə:], wan [wɔ:n], bräd [bɹɑ:d].

e) From Latin a [aː] in some loan words, as map [mæp], strat [stræ:t].

[aː]

OE. a [aː] has the following sources:

a) From Prim. G. a [a] in closed syllables, as
deg [dɛg], bær [bær], sêt [sɛt], glæs [glæs], bræc [bɾæk], wæs [wɛs].
b) From Prim. G. a [a] in open syllables if followed by a front vowel or syllabic nasal or lateral in the next syllable, as eor [əør], fæder [fædər], dæges [dægəs], fæm [fæm], hægl [hægl], snægl [snægl] wæcn [wæcn].
c) From Prim. G. a [a] by i-umlaut, as fæsten [fæsten], hæleþ [hæleθ], harfest [hærfest], mægden [mæjdan], ætle [ætə], sædeling [sædelɪŋ].

[a]

OE. a [a] has the following sources:

a) From Prim. G. a [a] in open syllables when originally followed by an a, o, u [aː d],[oː t], [uː U] in the next syllable, as faran [færən], nacod [nækəd], awul [əwəl].
b) From Prim. G. a [a] in closed syllables before double consonants (except hh), sc, and st, when the next syllable originally contained a back vowel, as abbod [abːd], catte [katːə], sec [səkː], waakan [waːkən], brastlian [bرأستليإن]; also cradol [krادول].

[a]

OE. a [a] has the following sources:

a) From Prim. G. ai [aɪ], as an [ən], bat [bæt], hal [hæl], hatan [hætən], hlafor [hlaːfər]; hraw [Χφρού].

b) From Prim. G. æ [æ:] with following w as blawan [blawe̞n], cnawan [knawan], sawon [sawən], wawan [wawan].

c) From Prim. G. æ [æ:] in the digraph æg [æɡ] followed by a back vowel, as magas [maɡəs], lagon [laɡən], bagon [baɡən], wagon [wəɡən].

d) From the lengthening of final Prim. G. a [a] in monosyllables, as hwa [Χwa], swa [swə].

[p]

OE. a (o) [p] has the following sources:

a) From Prim. G. a [a] before nasals, as lang [læŋ], long [lɒŋ], mann (monn) [mɒnː], ramm [ræmː].
hand [hænd], lamb (lamb) [læmb], nama (noma) [nʊma].

[ɔ]

OE. ɹ [ɔ] has the following sources:

a) From Prim. G. ɹ [ɔ], as dohtor [dɔΧtəɹ],
    coren [kɔɹin], hond [hɔɹd], oxa [ɔksə],
    hörən [hɔɹən], toll [tɔl], pörn [pɔrn], hold
    [hɔld], storm [stɔrm], word [wɔɹd].

b) From Prim. G. ɹ [ɹ] before l, r followed by a
    consonant, through older OE. ɹ̥o [ɹp], as
    sword [sɹɔɹd], worc [wɔɹk], worold [wɔɹɔld].

Note: These words were probably also pronounced

[ɔ]

OE. o [ɔ] has the following sources:

a) From Prim. G. o [ɔ], as boc [bɔk], bro▸or
    [bɹɔɹɹ], growan [ɡɹɔɹn], for [fɔɹ], glof
    [ɡɹɔɹ], brod [bɹɔd].

b) From Prim. G. nazalized a [ã], as brohte
    [bɹɔXtəɹ], fon [fɔn], þōhte [θɔXtəɹ], þōh [tɔX],
    hon [hɔn], woh [wɔX].

c) From Prim. G. æ [ɛ] before nasals, as mona
    [mɔnə], nomon [nɔmən], sone [sɔnə], brom
(b) From Prim. G. am, an [am, an] before f, p, s, as softs [softs], gos [gos], toph [toph], brostle [brostle], wos [wos], sop [sop].

e) From Prim. G. o [ɔ] by loss of h or g as holes [holes], broden [broden].

[U]

OE. u [u] has the following sources:

a) From Prim. G. u [u], as ouron [kʊɾən], dumb [dʌmb], hund [hʊnd], hungor [hʊŋɡər], tunge [tʊŋɡə].

b) From Prim. G. o [ɔ] before or after labials, as buce [bʌk], full [fʊl], fugol [fʊɡəl], wulf [wʊlf].

c) From Prim. G. o [ɔ] before nasals, as guma [ɡʊmA], hunig [hʊnɪɡ], hūnor [θʊnər], sumor [sʊmər].

d) From older OE. eo [eː] in the trigraph weo [wɛo], as awurd [awʊrd], awuster [awʊstər], wurpan [wʊɾpən], wurp [wʊɾp], swutol [swʊʔəl].

e) From older OE. io [iː] in the trigraph wio [wɪo], as wucu [wʊkʊ], wuduwe [wʊdʊwʊ], betwuh [bɛtwaː], wuht [wʊhʊt], wuton [wʊtən].

f) From w [w] standing at the end of a word or syllable, as bealu, bealw [bəlU], nearu, nearw [nəɾU], mearu, mearw [məɾU], nearu, nearw [nəɾU].
[u]

OE. u [u] has the following sources:

a) From Prim. G. u [u], as ḥus [hus], ṃus [mus],
    scufan [suvan], p̣usend [eusend], bṛun [brun].

b) From Prim. G. final wo [wo], as eu [ku], hu [hu],
    tu [tu], bu [bu], (bu tu [bu tu] became
    [butaj- both, literally both two].

c) From Prim. G. un [un] before .subscriptions to [θ - θ], as
    cụp [kuθ], mụp [muθ], us [us], sụp [suθ], dust
    [dust], cụpe [kuθe].

d) From Prim. G. u [U] by loss of h [θ], as sula
    [sula].
B. The Diphthongs

[æə]

OE. ea [æə] has the following sources:

a) From Prim. G. a [a] by breaking, as eall [æəl], heard [hɛərd], sahta [sæθə], weaxan [wɛaksən].

b) From older OE. æ [æ] (Prim. G. a [a]) after palatal a, e, œ [t], j, s, as ceaster [tʃəstə], ceaf [ʃəf], sceal [ʃəl], forgeat [fɔrʒət], ceaf [tʃəf].

[æːə]

OE. ea [æːə] has the following sources:

a) From Prim. G. au [AU], as ceæs [tʃæːs], deæp [dæːp], eæge [æːɡə], heæfod [hæːvəd], reæd [ræːd].

b) From Prim. G. æ [æ] after palatal a, e, œ [t], j, s, as ceæce [tʃæːkə], reæfon [ʃæːvən], sceæp [ʃæːp].

c) From Prim. G. æ [æ] by breaking before h, as neæh [næːh], near [næːɜː], older *neæhur [næːɜːhur].

d) From Prim. G. aw [AU] which became final in Prim. OE., as hree [hɛːə], strea [stʃə], fea [ʃəə],
\[\text{ewa} \ [\text{θәː]} \] , from \[^{\text{prawu}} \ [\text{θәwә}].\]

e) From Prim. G. \[^{\text{au}} \ [\text{au}]\] after the loss of inter-
vocalic \[^{\text{w}}\] , as \[^{\text{olea}} \ [\text{kләː]}\] , from \[^{\text{*clawu}}\); see
d) above.

f) From Prim. G. \[^{\text{aw}} \ [\text{au}]\] in the trigraph \[^{\text{eaw}} \ [\text{әә}]\] ,
as \[^{\text{deaw}} \ [\text{dәә]}\] , \[^{\text{heawan}} \ [\text{hәәwәn}]\] , \[^{\text{gleaw}}\] 
\[^{\text{gләː]}\] , \[^{\text{sceawian}} \ [\text{sәәwәn}]\].

g) From older OE. \[^{\text{ea}} \ [\text{әә}]\] , Prim. G. \[^{\text{a}} \ [\text{ә}]\] , by loss
of intervocalic \[^{\text{h}}\] after \[^{\text{l}}\] and \[^{\text{r}}\], as \[^{\text{seales}}\] 
\[^{\text{[sәәlәә]}\} , \[^{\text{weales}} \ [\text{wәәlәә}]\] , \[^{\text{feares}} \ [\text{фәәәрәә}]\] ,
\[^{\text{meares}} \ [\text{mәәәрәә}]\].

h) From older OE. \[^{\text{ea}} \ [\text{әә}]\] , by loss of intervocalic
\[^{\text{h}}\] , as \[^{\text{ea}} \ [\text{әә}]\] , \[^{\text{elean}} \ [\text{әләә}]\] , \[^{\text{tear}} \ [\text{tәәәрәә}]\] ,
\[^{\text{ear}} \ [\text{әәәрәә}]\] , \[^{\text{flean}} \ [\text{фләәән}]\] , \[^{\text{lea}} \ [\text{ләә}]\].

\[\text{әә}\]

OE. \[^{\text{eo}} \ [\text{әә}]\] has the following sources:

a) From Prim. G. \[^{\text{e}} \ [\text{ә}]\] by breaking, as \[^{\text{meolcan}}\] 
\[^{\text{[mәлкәән]}\} , \[^{\text{sceolh}} \ [\text{sәәләә}]\] , \[^{\text{eorpe}} \ [\text{әәәрәә}]\] ,
\[^{\text{heorte}} \ [\text{hәәәрәә}]\] , \[^{\text{oneocht}} \ [\text{kәәәкәә}]\].

b) From \[^{\text{i-umlaut}}\] of Prim. G. \[^{\text{a}} \ [\text{ә}]\] before \[^{\text{w}}\] as
\[^{\text{eoweastre}} \ [\text{әәәстәә}]\] , \[^{\text{meowlе}} \ [\text{mәәләә}]\] , \[^{\text{streowede}}\] 
\[^{\text{[стәәәвәдә]}\} , \[^{\text{cowde}} \ [\text{әәә}]\].

c) From Prim. G. antevocalic \[^{\text{ew}} \ [\text{әU}]\] , as \[^{\text{oneowes}}\] 
\[^{\text{[кәәәвәә]}\} , \[^{\text{treowes}} \ [\text{тәәәвәә]}\] , \[^{\text{peowes}} \ [\text{пәәәвәә}]\] .
d) From Prim. G. e [e] by u-umlaut, as eofor [əʊfər], meolu [məʊlə], seofon [seəvn], geolo [gəʊlə], heofon [heəvn], eoal [əʊəl], fector [fətər].

OE. eo [ eo] has the following sources:

a) From Prim. G. eu [jʊ], as ceosan [tʃəsən], deop [dəʊp], leof [liəf], peor [pəər].
b) From Prim. G. ew [jʊ] which became final in Prim. OE., as oneo [kənə], treo [tɾəʊ], peo [pəʊ].
c) From Prim. G. ew [jʊ] in the trigraph eow [ eo] (Prim. G. eow [jʊː]), as treow [tɾəʊ], getreowan [gətɹəʊən], heow [heəʊ], neowe [nəʊə].
d) From older OE. eo [əʊ], Prim. G. e [e], by loss of antevocalic h after l and r, as feolan [fələn], eoles [eələs], feores [fəəɾəs], pweores [pəweəɾəs].
e) From older OE. eo [əʊ] by loss of intervocalic h, as seon [sən], sweor [swəər], feos [fəəs], gfeon [ʃevən].

OE. ie [iə] has the following sources:

a) From i-umlaut of ea [əɹ] (Prim. G. a [a] by
OE. 1e [iæ] has the following sources:

a) From 1-umlaut of ea [æːa] (Prim. G. au [aʊ]), as 
geliefan [gæliːvæn], hieran [hiaːvæn], 
hiehata [hiaːstæ], niedan [niːdæn], elieve [elіːvæ].

b) From 1-umlaut of io [iɑ] (Prim. G. iu [iʊ]), as 
ciærp [tʃiærθ], diærlin [dіærlining], liæhtan 
[liaːstæn], tiehæ [tіæθ], stieran [stіæræn], 
piestre [piɛstɾæ].

c) From 1-umlaut of io [iɑ] (Prim. G. i [i] before 
h, ht by breaking), as liæhat [liæʃt]
lihtan [liətən].

d) From ı-umlaut of ıo (eo) [iɒ (əːp)] (Prim. G. ı [ı] plus back vowel), as fiend [fiænd], friend [friːnd].
e) From Prim. G. ew [eU] in the combination iew(e) [iəw(ə)] (Prim. G. eww [eU]), as getriewa [getriəwa].
f) From Prim. G. ew [eU] in the combination iew(e) [iəw(ə)] (Prim. G. ew [eU]), as niewe [niəwe], niew [niəU].
C. OE. Consonants

[p]

OE. p [p] has the following sources:

Note: Most of the words beginning with p [p] in OE. are Latin or Greek loan words. Prim. G. p from Indo-E. b was of rare occurrence initially as well as otherwise.

a) From Prim. G. p [p], OE. p [p] remained initially, medially, and finally, as pad [pad], penning [penting], pidenning [pidenning], upp [up], pot [pot], pliht [pliht]; spere [spere], sprekan [sprekän], glyppan [klyppan], grapien [gripian], steppan [stweepan]; heap [heap], rap [rap], sceap [sceap], scearp [scearp], scip [scip], up [up].

Examples of Latin loan words are: cupoe [kupöe] (L. cupoe [kup:öe]), pawa, pea [pawä], [pea] (Lat. pavo [pawö]), peru [pi:ru] (L. pirum [pifum]), pise [pise] (L. pisum [pisum], pund [punk]).

[b]

OE. b [b] and OE. bb b: have the following sources:

a) OE. initial b [b] from Prim. G. b [β] as beran.
OE. t [t] or tt [tː] has the following sources:

a) OE. t [t] initially, medially, and finally from Prim. G. t [t], as top [tʰɔp], tunge [tʊŋɡə], twa [twə], etan [ɛtən], witan [wɪtən]; settan [sɛtən], anottor [ɑnɔtɔɹ]; neaht [næət], sceatt [ʃæt], strat [strət].

Note: t between consonants frequently disappeared, as fæsnian [fæsnɪən], prısnæ [prɪsnæ], beside fæstnian [fæstnɪən], prıstnæ [prıstnæ].

b) From d [d] before and after voiceless consonants, as bletslan [bletslæn], bitst [bɪst], bintst [bɪntst], fintst [fɪntst].

c) From assimilation of p with another linguadental or s, as bit [bɪt] from bitp [bɪtθ], bit [bɪt] from bidep [bɪdəθ], ciest [tʃɪɛst] from cisep [tʃɪsɛθ], wiext [wɪɛkst] from wiexeθ [wɪɛksɛθ].

Note: Phonetic t [t] arose as a result of
palatalization of OE. o [k] preceded or followed by front vowels, as cidan [tsidan], ealso [tseslo], cinn [tsin], cirice [tsirits].

[d]

OE. d [d] or dd [d:] initially, medially, and finally has the following sources:

a) From Prim. G. d [d], as æxg [æxj], dohtor [dɔxtɔr], fæder [fædər], bindan [bindan], blod [blod], dead [dæ:əd], god [god].

b) From restoration to interconsonantal position whence it had previously been lost, as findst [findst], milds [mildz], mildsian [mildzian]. See b) under [t], p. 17.

c) From Prim. G. ʌ [ʌ] which became ðæ [dæ], as fealdon [fældən], wilde [wilde], wuldor [wʊldər], beald [bæald], eald [æald], weald [weald], feld [feld], hold [hold].


[k]

OE. o [k] has the following sources:

a) From Prim. G. k [k]. OE. o [k] remained
Initially before consonants and before the vowels a [a], a [æ], o [o], o [o], u [u], and their unlauted forms æ [æ], æ [æ], e [e], e [æ], y [y], y [Y], as onotta [knot:ǝ], clane [klæ:nǝ], climban [klɪm'bǝn], oneo [kneǝ], craft [kɹɑft]; camb [kɑmb], oafe [kɑvǝ], corn [kɔrn], col [kol], oman [kʊmǝn], cu [ku]; corse [kɔrǝs], ceg [ke:j], cennan [kɛnǝn], cene [kɛna], cynn [kın:n], cyban [kɪbǝn].

b) From Prim. G. k [k] medially and finally, as kcer [kʰɛɾ], nacod [nɑkɔd], bacan [bɑkǝn], bucca [bUKǝ], licean [lɪkǝn], drincan [drin:i:n]; bǝc [bǝk], folc [fɑlk], seoc [sǝk], brocc [bɹɔk], flocc [flɔk], ac [ak].

OE. x [ks] has the following sources:

a) From Prim. G. Xs [Χς] which became ks [ks], written x [ks], in OE., as oxa [ɔks], siex [siaks], waxan [wɔksǝn], flex [flɛks], fox [fɔks], fyxen [fɪksǝn].

b) From metathesis of sc [sk], spelled x [ks], as axe [aksǝ] for asce [askǝ]; waxan [waksǝn] for waacan [waʃǝn]; fixas [fɪksas] for fiscas [fɪʃǝs].
OE. \(g\) [\(g\)] has the following sources:

a) From Prim. G. initial velar \(\tilde{g}\) [\(\tilde{g}\)], as \(gast\) [\(gast\)], \(gold\) [\(g\tilde{\text{o}}ld\)], \(guma\) [\(g\tilde{\text{u}}\text{m}a\)], \(gr\tilde{\text{e}}s\) [\(gr\tilde{\text{e}}s\)], \(gad\) [\(g\tilde{\text{a}}d\)], \(gy\tilde{\text{d}}\text{en}\) [\(gy\tilde{\text{d}}\text{en}\)], \(\text{gre}n\) [\(\text{g}\tilde{\text{r}}\text{e}n\)].

b) From Prim. G. \(\tilde{g}\) [\(\tilde{g}\)] which became \(g\) [\(g\)] after Prim. G. \(\tilde{g}\) [\(\tilde{g}\)], if the whole were followed by back vowels or consonants, as \(\text{bringan}\) [\(\text{br}^\prime\text{r}\text{g}\text{a}n\)], \(\text{gyning}\) [\(\text{gn}\text{y}\text{n}\text{g}\)], \(\text{enl}\text{isc}\) [\(\text{e}\text{n}\text{l}\text{i}\text{s}\)], \(\text{springan}\) [\(\text{s}\text{p}\text{r}\text{i}\text{ng}\text{a}n\)], \(\text{s}\text{e}\text{ngan}\) [\(\text{s}\text{e}\text{n}\text{g}\text{a}n\)].

c) From West G. \(g\) [\(g\)], as \(\text{dogga}\) [\(\text{d}\text{og}:\text{g}\)], \(\text{frogga}\) [\(\text{f}\text{rog}:\text{g}\)], \(\text{stagga}\) [\(\text{st}\text{a}:\text{g}\)], \(\text{sugga}\) [\(\text{s}\text{u}:\text{g}\)].

d) From restoration of \(\text{n}c\) [\(\text{n}\text{k}\)] to \(\text{n}c\) [\(\text{n}\text{g}\)] before voiceless consonants, as \(\text{angsum}\) [\(\text{e}\text{n}\text{g}\text{s}\text{e}\text{m}\)], \(\text{lengten}\) [\(\text{l}\text{e}\text{n}\text{g}\text{t}\text{e}\text{n}\)], \(\text{spring}\) [\(\text{s}\text{p}\text{r}\text{i}\text{n}\text{g}\)], \(\text{streng}\) [\(\text{st}\text{r}\text{e}\text{n}\text{g}\)].

OE. \(m\) [\(m\)] has the following sources:

a) From Prim. G. \(m\) [\(m\)], as \(\text{mona}\) [\(\text{m}\text{o}\text{n}\text{a}\)], \(\text{rum}\) [\(\text{r}\text{u}\text{m}\)], \(\text{mann}\) [\(\text{m}\text{a}\text{n}\text{a}\)], \(\text{niman}\) [\(\text{n}\text{i}\text{m}\text{a}\text{n}\)], \(\text{ham}\) [\(\text{h}\text{a}\text{m}\)], \(\text{helm}\) [\(\text{h}\text{e}\text{l}\text{m}\)], \(\text{wyrm}\) [\(\text{w}\text{y}\text{r}\text{m}\)], \(\text{swa}\text{m}\) [\(\text{s}\text{w}\text{a}\text{m}\)].

Note: 1. Vocalic \(m\) [\(m\)] arose when a vowel was lost that originally stood between a preceding surd or plosive consonant and the \(m\), as \(\text{epm}\).
2. Final m, as an element of inflection changed to -n in late OE., as dagon [dægon], giefon [giatan], godon [gōdon], sunon [sūnən].

OE. n [ŋ] has the following sources:

a) From Prim. G. n [ŋ], as nama [nænæ], sunu [sūnə], grene [grɛnə], munuc [mʊnək], windan [windən], cinn [tʃɪn], honn [hʌn].

b) From m when it became n, as an element of inflection, as dagon [dægon]. See note 2, under [m] a), p. 21.

Note: 1. n sometimes disappeared between consonants, as elboga [ɛlbɔɡə], nemde [nɛmdə], saterdag [sætərdæɡ] beside elnboga, *nemnde, externdag.

2. n frequently became vocalic, as wænn [wæn], tæcn [tækn], þænn [θæn]. See note 1., under [m] a), p. 20.

OE. [ŋ], written n [ŋ] with following g [ɡ] or k [k] and occurring only medially, has the following sources:
a) From Prim. G. n [ŋ] preceding s [s] or k [k] medially, as bringan [bɾɪŋɡən], drincan [dɾɪŋɡən], seong [ʃəŋ], finger [fɪŋɡər], hungor [hʊŋɡər], sincan [ʃɪŋɡən], swingan [ʃɪŋɡən].

Note: [ŋ] disappeared in an unstressed syllable if the preceding stressed syllable contained n [n], as cynig [kʏniŋ], penig [pɛniŋ], hunig [hʊniŋ].

b) From Prim. G. ης [ɲ] which became no [ŋk] before voiceless consonants, as brinest [bɾɪŋkst], brincp [bɾɪŋkθ], strenep [stɾɪŋkθ], anosum [aŋksəm], sorinpdf [spɾɪŋkθ], lencten [lɛŋktən].

OE. l [l] initially, medially, and finally has the following sources:

a) From Prim. G. l [l] as lecan [lɛɡən], slæpan [sɬæɡən], stelan [stələn], helpan [hɛlpən], sellan [sɛlən], col [kəl], ful [fʊl], feld [fɛld].

Note: l [l] became vocalic under certain conditions, as zpl [zpl], nɛdl [nɛ:dɬ], setl [setl]. See note l., under [m] a), p. 20.
OE. \( r \) \([r]\) has the following sources:

a) From Prim. G. \( r \) \([r]\) as read \([ˈrəd]\), faren \([ˈfaˌrən]\), duru \([ˈduˌɾu]\), writan \([ˈwriˌtən]\), hrof \([ˈhɾof]\).

b) From West G. medial \( r \) \([r]\) from older \( z \) \([z]\), as betra \([ˈbeˌtrə]\), horc \([ˈhoɾd]\), ooren \([ˈkoˌɾən]\), deor \([ˈdeˌɔr]\), mara \([ˈmaɾə]\), hieran \([ˈhiəˌɾən]\).

Note: Antevocalic \( r \) often became postvocalic by metathesis, as ærn \([ˈærn\)], forsc \([ˈfɔrʃ]\), forst \([ˈfɔrst\]), feres \([ˈfɛrʃ]\), carr \([ˈkær\]), berstan \([ˈbɛɾstən\]).

OE. \( f \) \([f]\) has the following sources:

a) From Prim. G. \( f \) \([f]\) initially, medially before surds, and finally as fxder \([ˈfʌdəɾ]\), fif \([ˈfɪf]\), wulf \([ˈwulf]\), fæger \([ˈfɛˌɡəɾ]\), fea \([ˈfɛə]\), refsan \([ˈɾɛfˌsən]\), sceaf \([ˈsɛəft\]), cear \([ˈtʃəəɾ\]), hof \([ˈhoɾf]\).

b) From. Prim. G. final b \([b]\), as geaf \([ˈɡɛəf\]), heal \([ˈhɛəl\]), hlaf \([ˈhlaf\]), leaf \([ˈlɛəf\]), wif \([ˈwif\]).

OE. possessed the sound but used a voiced \( f \) and \( b \) to
represent it; its sources were as follows:

a) From Prim. G. medial and final between voiced sounds, as ceafl [tʃæːvl], ofen [ɔvən], ceafl [ʃæːfl], sceolf [ʃæfl], wulfes [wʊlvəz].

b) From Prim. G. b [b] between voiced sounds, giaban [ɡiavan], libr [li:v], ober [ɔvər].

c) West G. bb [v] medial and final from Prim. West G. bi [b̥i], as sibb [sɪ:v], nebb [nɛv:], webb [wev:], ribb [rɪv:], habban [hævən], ebba [ɛvə], libban [li:vən].

[θ]

OE. p [θ] has the following sources:

a) From Prim. G. p [θ] initially, medially when doubled, and finally, as pæsend [θæzənd], pencan [θɛŋkan], sceppan [ʃɛθən], oppe [ɔθə], moppe [mɔθə], clap [klæθ], norp [nɔrθ], ovp [ɔvp], monap [monəθ].

[ð]

OE. [ð] written p, has the following sources:

a) From Prim. G. p [θ] between voiced sounds as

2. Cook, Old English, 10.
bapian [bapjan], brobor [brɔːrə], hapen [hæpən], mordor [mɔːdɔr], ober [oʊər].

[s]

OE. ə [s] has the following sources:

a) From Prim. G. ə [s] initially, medially in combination with voiceless consonants, and finally, as əə [əə], elæpan [elæ:pan], spearwa [spəːrwa], asa [əsə], cyssan [kys:ən], gos [gos], heals [hɛəls], əs [əs], wəs [wəs].

Note: Sometimes there was metathesis of ə with p, especially in late OE., as əps [əps] for əsp [əsp]; cəps [kəps] for cəsp [kəsp]; əlips [əlips] for əlisp [əlisp], wəes [wəes] for wəep [wəep]. Cf. [p] a), under ME. Consonants, p. 68.

[z]

OE. ə [z], has the following sources:

a) From Prim. G. ə [s] vocalized between voiced sounds, as bosm [bozm], cezan [tʃeːzən], grasian [ɡrɑːsɪən], hæsl [hæzl], lezan [lɛzən], nosu [nɔzə], ole [ɔːlə], wesole [wɛsələ], wesan [wɛsən], husee [huzəs].

[ʃ]

OE. sc [ʃ] has the following sources:

a) Earlier OE. sc was pronounced [sk], later it was fronted to [ʃ]; this it remained except in some Latin and Scandinavian loan-words.

Examples: scand [ʃænd], sceadu [ʃəd], sceaff [ʃəft], scilling [ʃɪlɪŋ], scop [ʃɔp], scoh [ʃɔk], scylldig [ʃɪldɪdʒ], blyscan [blɪʃn], blyscan [blɪʃn], wvscean [wɪʃn], fisc [fɪʃ], fisc [fɪʃ]. Examples of sc [sk] in loan-words: scol [skɒl], scinn [skɪn].

Note: The palatalization of OE. c [k] gave rise to the palatal [ʃ] as the second element of the digraph [tʃ], as in birce [bɪrʃ], stenc [stɛntʃ]. See note under [tʃ] c), p. 17.

[ʒ]

OE. [ʒ] in the digraph sc [ʒ] has the following sources:

OE. [tʃ], written c, has the following sources:

a) From Prim. G. k [k], written c (sometimes cc [k])

[ k ] in OE., and when palatalized had the value of the affricate [ tʃ ], as cild [ tʃ ɪld ],
	two(e)an [ təʊən ], mycel [ mɪtʃəl ], wicce [ wɪtʃ ]
	drene(c)e(an [ drəntʃən ], fllice [ flɪtʃ ]).

[dʒ]

OE. [dʒ], written cg, has the following sources:

a) From Prim. G. ʒ [ʒ] to West G. ʒʒ [ʒ] which became palatalized in OE. [dʒ], generally written cg, as cycgel [kɪdʒəl ], hrycg [hɪdʒ],

secg [sɛdʒ ], mycg [mɪdʒ ], seogan [sɛdʒən ].

[ŋ]

OE. [ŋ], written h, has the following sources:

a) From Prim. G. X [X] medially if it was preceded or followed by a front vowel or by ħ [ŋ], spelled ñ, as cnieht [knɪŋt ], nieht [nɪŋt ],

tehp [teŋθ ].

[J]

OE. [j], written ɛ or ħ has the following sources:
a) From Prim. G. initial, medial, and final palatal fricative ȝ [j], written ȝ in OE. if preceded or followed by palatal vowels, as geat [jæt], geolu [jeælu], geowiss [jæwis]; lyse [lyæs], myrsig [myr¿ig], megel [naægel]; dag [dæg], hefig [hevig], dysig [dyzig].

b) From Prim. G. ȝ [j], as gear [jæːr], geoc [jæk], geong [jeæŋ], glest [jæst], geomor [jeæmar].

c) From Prim. G. ï [i] between vowels, if the first were a long vowel or diphthong, as frige [friæ], hege [heæ], freagean [θæːææ], feagean [feææ], freagean [fæææ].

[X] (spirant)

OE. h [X] has the following sources:

a) From Prim. G. X [X] initially, before w [w], as hwa [Xwa], hwær [Xwær], hwil [Xwil], hwælp [Xwelæ], hwit [Xwit].

b) From Prim. G. X [X] medially when doubled, followed by a voiceless consonant, or by a back vowel, as bohha [pɔΧæ], geneahhe [jææΧæ], crohha [kρΧæ]; brohte [bρΧæ], dohtor [dɔΧær], eahta [æΧæ], uhta [uΧæ].

c) From Prim. G. X [X] used finally, as heah [hæːΧæ], ruh [ruΧæ], toh [toΧæ], sulh [sulΧæ].
[g] (voiced velar spirant)

OE. g [g] has the following sources:

From Prim. G. ȝ [ȝ] which remained before original back vowels, as dragan [ðragən], eage [i:ægə], stigan [ʃtɪɡən], belgan [bɛlɡən], fugal [fʊɡəl], dagas [dæɡəs], wesga [wɛɡəs], folgan [fʊɫɡən], fleogan [fleoɡən], maga [mæɡə].

[h]

OE. h [h] has the following sources:

a) From Prim. G. X [X] initially before vowels, as hus [hus], hamor [hʌmɔːr], hand [hand], hold [həld], hieran [hɪərən].

b) From Prim. G. X [X] initially before consonants except w [w] (see [X] a), p. 28), as hlaf [hlæf], hniðan [hniðən], hring [hɾɪŋ], hladan [hlæðən], hlud [hlud], hnutu [hniːtu], hrafn [hɾaːfn], hrimig [hɾimɪɡ].

[w]

OE. w [w] has the following sources:

a) From Prim. G. w [w] which remained initially before vowels and generally initially before and after consonants, as wes [wɛs], wadan.
From Prim. G. w [w] medially which generally remained before vowels as spiwan [spiwan], blowan [blowan], sawan [sawan], wawan [wawan], blowan [blowan], eowestr[ea], hweowal [Xw3əwəl].

Note: 1. When w [w] stood at the end of a word or syllable, it became vocalized to u, unaccented to [ə].

2. The w [w] was reintroduced into the nominative singular from the inflected forms, especially after long vowels and long diphthongs, and by the analogy of forms where w [w] was regular, as nominative clau [klau], praw [prəwə] beside olea [klə:ə] and trea [θrä:ə].
## SUMMARY OF CHAPTER I

### The Vowels

<table>
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<td>&quot; 3) OE. a [a], o [o].</td>
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<td>&quot; 4) OE. o [o].</td>
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<td>7. OE. æ [æ]</td>
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<td>&quot; 5) Latin ì [ã].</td>
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8. OE. e [æ] from 1) Prim. G. a [a].
   " 2) " " a [a].
   " 3) " " a [a].
9. OE. a [a] " 1) " " a [a].
   " 2) " " a [a].
10. OE. a [a] " 1) " " a1 [a1].
    " 2) " " æ [æ:].
    " 3) " " æ [æ:].
    " 4) " " æ [æ:].
11. OE. a [a] " " " a [æ].
12. OE. o [ɔ] " 1) " " o [ɔ].
    " 2) " " e [ɛ].
13. OE. o [ɔ] " 1) " " o [ɔ].
    " 2) " " ð [ð].
    " 3) " " ð [ð].
    " 4) " " ð [ð].
    " 5) " " o [ɔ].
14. OE. u [U] " 1) " " u [U].
    " 2) " " o [ɔ].
    " 3) " " o [ɔ].
    " 4) Older OE. eo [ɛə].
    " 5) " " io [ɪ].
    " 6) Unstressed u [U].
15. OE. u [u] " 1) Prim. G. u [u].
    " 2) " " wo [wo].
    " 3) " " un [un].
    " 4) " " u [U].

The Diphthongs

1. OE. ea [æə] from 1) Prim. G. a [a].
   " 2) Older OE. æ [æ].
2. OE. ea [æː] " 1) Prim. G. au [au].
    " 2) " " æ [æ:].
    " 3) " " æ [æ:].
    " 4) " " æ [æ:].
    " 5) " " æ [æ:].
    " 6) " " æ [æ:].
    " 7) Older OE. ea [æə].
from 8) Older OE. ea [ææ].

3. OE. eo [œo] " 1) Prim. G. e [ɛ].
   # 2) " a [a].
   # 3) " ew [ɛu].
   # 4) " e [ɛ].
4. OE. eo [œo] " 1) " ew [ɛu].
   # 2) " ew [ɛu].
   # 3) " ew [ɛu].
   # 4) " e [ɛ].
   # 5) Older OE. eo [œo] .

5. OE. ie [iə] " 1) i-umlaut of ea [ææ].
   # 2) Prim. G. i [i].
   # 3) " e [ɛ].
   # 4) i-umlaut of ea [ææ].
6. OE. ie [iə] " 1) i-umlaut of ea [ææ].
   # 2) i-umlaut of lo [iə].
   # 3) i-umlaut of lo [iə].
   # 4) i-umlaut of lo [iə].
   # 5) Prim. G. ew [ɛu].
   # 6) Prim. G. ew [ɛu].

The Consonants

1. OE. p [p] from 1) Prim. G. p [p].
   # 2) Latin and Greek loan-words.
2. OE. b [b] from 1) Prim. G. b [β].
3. OE. t [t] from 1) Prim. G. t [t].
   # 2) Assimilation of d [d].
   # 3) " of f [θ].
4. OE. d [d] from 1) Prim. G. d [d].
   # 2) Restoration between sonants and surds.
   # 3) Prim. G. l[k] [lθ] by assimilation.
5. OE. k [k] from 1) Prim. G. k [k].
6. OE. x, ox [ks] " 1) Prim. G. Xs [Xs].
   # 2) Metathesis of sc [sk].
7. OE. ȝ [ȝ] from 1) Prim. G. ȝ [ȝ].
   " 2) West G. ë [ë].
   " 3) Restoration of no [ŋ] to ne [ŋe].

8. OE. ȝ [m] from 1) Prim. G. ȝ [m].

9. OE. ȝ [n] from 1) Prim. G. ȝ [n].
   " 2) Unstressed inflectional m.

10. OE. ȝ written n before ȝ [ȝ], ȝ [k].

11. OE. ȝ [?

12. OE. ȝ [?] from 1) Prim. G. ȝ [?].
   " 2) West G. ȝ [?].

13. OE. ȝ [f] from 1) Prim. G. ȝ [f].
   " 2) Prim. G. final b [β].

   " 2) Prim. G. b [β].
   " 3) West G. bb [v] from Prim. G. b [β].

15. OE. ȝ [?] from 1) Prim. G. ȝ [?].

16. OE. ȝ [?] from 1) Prim. G. ȝ [?].

17. OE. ȝ [a] from 1) Prim. G. ȝ [a].

18. OE. ȝ [z] from 1) Prim. G. ȝ [z].

19. OE. ȝ [?] from 1) Older OE. ȝ [sk].

20. OE. [?] in the digraph ȝr [dr].

21. OE. ȝ [tʃ] from 1) Prim. G. k [k].

22. OE. ȝr [dr] from 1) Prim. G. ȝr [dr].

23. OE. ȝ [?] from 1) Prim. G. ȝ [?].

   " 2) ȝ [l].
   " 3) ȝ [l].

25. OE. ȝ [?] from 1) Prim. G. ȝ [?].
27. OE. ə [a] from 1) Prim. G. ə [ə].
28. OE. w [w] from 1) Prim. G. w [w].
CHAPTER II

THE PHONEMIC SYSTEM
of
MIDDLE ENGLISH

1. The Vowels

ME. 1, 1 [1] have the following sources:

a) From the rounding of OE. 1 [Y], as hipe [hip],
cripel [kripəl], fīxene [fiksən], birie [biri],
wīse [wīs], kirnel [kīnəl], fīrste [fīrst].
Note: This change operated only in the North
and in the Midlands.

b) From OE. 1 [1] which remained in ME., as pipe
[pip], strik [strīk], like [lik], smīte [smīt],
pīne [pīn], wīre [wīr], brīne [brīn].

c) From OE. 1 [1] preceding ld, mb, nd in the same
syllable, as chīld [tʃild], wīld [wīld], clīmbe

1. The references regarding sound-values are Wright,
Kaluza, Luick, Luquiens.
2. Final e was pronounced in poetry if it was re­
quired to preserve the meter.
[klimb], chimbe [tjimb], blind [blind],
grinde [grind], wind [wind], vinden [finden].

d) From OFr. ı [i] open syllables, before stops followed by liquids, and before single final consonants, as spve [spi], denyen [dənjeən], endite [endit], strive [strɪv], vice [vis], nice [nis]; bible [bɪbəl], tigre [tɪgər], title [tɪtəl]; malice [məlis], nurice [nʊrɪs], servise [sərˈvɪs].

e) From pretonic OFr. ı [i], as citee [site], pitee [pɪtɪ], vitailes [vɪtəlz], rivere [rɪvər], image [ɪmædʒ], ignoraunce [ɪgnəˈraʊns].

f) From OFr. ı [i] which lost its nasality and went to [ɪ] before a simple nasal and before nt, as fin [fɪn], latin [lætɪn], gardin [gɑrdɪn], velim [vɛlɪm], nim [nɪm]; pinte [pɪnt].

g) From OFr. ı [i] before OFr. ɪ[ʌ], n [ŋ] which, after losing their liquidity (palatalization), converted the ı [i] to ı [i] in ME., as peril [ˈpɛrɪl], vine [vɪn], sine, signe [sɪn], benigne, benine [bənɪn], maligne, maline [məlɪn].

h) From lengthening of OE. ı [ɪ] to OE. ı [i] before ld, nd which subsequently changed into ME. ı [i], as bilden [bɪldən], gilden [gɪldən], minde [mɪnd], kinde [kɪnd].

i) From OE. ı [i] with following palatal ɹ [ɹ], as sty [stɪ], nine [nɪn], twies [tɪwɪs], stile
From OE. [y] before palatal ȝ [j], as rye [rj], byest [biæst], byen [biæn], lye [li].

From OE. ɪ [i] before palatal ȝ [j], as styen [stjæn], hyen [hiæn], Fridai [frjædi] (OE. Frige-daeg [frjæ-daeg]).

[y]

ME. u [y] has the following sources:

a) From OE. [y] before ɪd, nd, as bulden [byldæn], gulden [gyldæn], munde [mynd], kunde [kynd].

Note: cf. d) under [i], p. 37.

b) From OE. [y], as hupe [hjæp], duþen [dýpæn], gudy [gydí], hul [hyl], mulle [myl], wurr [wyfæ].

Note: The area of this use was in the Southwestern part of England only. See [i] a), p. 36.

c) From OE. [y], as brude [þryd], hude [hyd], fur [fyf], lute [lyt].

Note: In the Southwest, as in b) above.

d) From OE. [y], as muis [mjs], kuin [kyn], huiren [hyræn], luitel [lytel].

Note: 1. In the Southwest, as in b) above.

2. The spellings of [y] with u and ui are due to French influence.
e) From OFr. u [Y] lengthened to u [y] in vocalic final syllables and before single consonants, as vertu [vεɾty],ague [agy], lute [lyt], duk [dyk], rude [ryd], us [ys] (noun).

f) From OFr. pretonic u [Y] lengthened in open syllables to u [y], as cruel [крал], July [дъйл], humour [hymur], conclusion [кънклизион], usage [yzас].

g) From OFr. u [Y] in tonic and pretonic syllables which in ME. lost its nasality and lengthened before a single nasal to u [y], as flum [flyм], fortune [фортн].

h) From tonic OFr. ui [Yi] through AN. u [Y] to ME. ui, u [y], as fruit [fryt], frut [fryt].

i) From OFr. ui [Yi] which denasalized to ME. u [y], as June [дъйн].

j) From OFr. ui [Ui] simplified in tonic and pretonic syllables in ME. to u [y], as que, pewe [пы]; uschere [yʃ eɾ], nuisance [нъсаунс].

[1]

ME. i [I] has the following sources:

a) From OE. eo [ээ] before ht [Χт] through ME. e [э] before ȝt [ȝt], as fit [фит], bright [бръйт], kniȝte [нъйтэ].
b) From OE. ð [θ], as frīþ [friθ], wīȝt [wιθt], 
milk [milk], silk [silk].

c) From OE. ȝ [j] preceded by ð [θ], as forgieten 
[forgiatan], ȝist [jist], isikel [isikel], 
ȝingre [jιŋɡrə], ȝisterday [jιstərdəi].

d) From rounding of OE. ȝ [j], as rigge [riɡd], 
kichene [kιtʃən], brigg [briɡ], liften 
[liften], listen [listən], millere [milər], 
pilwe [piɻə], din [dιn].

Note: This change took place in the Midlands 
and in the North only.

e) From OE. ā [a] before consonant combinations in 
compounds, as wisdom [wιzdəm], fifte [fιft], 
mist [mist], stiffer [stιfə].

f) From OE. ȝe [jə], as ȝit [jιt].

g) From OE. ȝ [j] preceding a consonant combination, 
as pimbel [piɻmbəl], hídde [hιd], filpe [filp], 
wischen [wιʃən], nosepril [nəspriɻ].

h) From OE. ā [a] which remained in ME., as sikel 
[sιkəl], bille [biɻ], hilt [hιlt], grim [грιm], 
birde [biɹd], sting [stιŋ], him [him], ill [ιl].

i) From OE. e [ɛ] before ng, nk, nr [ŋ, ηk, ndʒ], 
as link [lιŋk], pinke [piŋk], hinge [hιŋdʒ], 
singe [sιŋdʒ], Ingland [ιŋɡlənd], Inglis [ιŋɡlιs].

j) From OFr. ð [θ] before consonant clusters except 
stops followed by liquids, as diache [dιʃ].
riche [ʁiʃ], resiste [ʁeziʃ], delivere [dɛlivɛʁ], baptiste [baptiʃ], finische [fiɲʃ], punische [pʊɲʃ].

k) From pretonic OFr. ʌ [i], as miroir [miʁuʀ], [miʁuʀ], silence [silɛns], tiraunt [tɪʁaʊnt], lioun [lɥun].

l) From OFr. ʌ [i] which lost the nasality and was shortened before -mpl, -nce, as simple [sɪmpɛl], prince [prɛɲs].

m) From OFr. ɛ [e] which changed in AN. to ʌ [i] when preceded by ch [tʃ], as chivalrie [tʃɪvalʁi], chimeneie [tʃɪmɛni].

n) From the interchange of the unaccented prefixes des- and mes- with dis- and mis-, as distroien [dɪstrɔjɛn], mischeef [mɪʃɛf].

o) From AN. ɛ [ɛ] which, before nk [ŋk] in ME., became ʌ [i], as inke [ŋk], (OFr. encue [ɛŋkwɛ], Gr. ένκωσε, Gr. ένκαυσορ [ŋkaʊsɔɾ].

[X]

ME. X [Y] has the following sources:

a) From OE. ea [e], as ye [Y], dye [dY], dyen [dɛjɛn], hy [hY], ny [nY].

This condition prevailed in the South only.
b) From OE. eo [eɔ] before e [ɛ], h [ʰ], as flyen [flYen], lyen [lYen], ly [ɬy], schy [ʃY].

Note: This situation prevailed in the South only.

c) From shortening of OE.  y [ɪ] before a consonant cluster, written in ME. u, as hudde [hYd], fulpe [fy1θ], just [fy1st], kud [kYd], purl [ɬYr], nosepurl [nəsɬYr].

d) From OFr. u [Y] before a consonant cluster, as just [dʒYst], jugace [dʒYs], hurten [hYrten]. Moreover, in a pretonic condition of derived word forms from OFr. u [Y], as justice [dʒYstis], judgement [dʒYdʒment], duchesse [dʒYʃ[es]].

e) From OFr. u [Y] before a nasal followed by a consonant, as humble [hYmbl] or [hYmbal].

f) From OFr. eu [eu] appearing in ME. tonic and pretonic syllables as u [Y], as curfew [kYrif], juberti [dʒYpafti].

[e]

ME. e [e] has the following sources:

a) From OE. eo [eɔ], as orenen [ɬrpn], fleet [flet], red [rɛd], treec [trec], whale [Wel], dere [deɾ].
b) From OE. io [iɔ], as stepel [stɛpəl], eken [ekɛn], node [nɛd], schehe [ʃehe], chese [tʃez], tene [tɛn].

c) From OE. ie [iɛ], as fende [fɛndz], frendes [fɾɛndz].

d) In the Kentish dialect of ME. from OE. y [j], as hepe [hɛp], deppen [dɛpən], kechene [ketʃeŋ], regre [rɛdʒ], worse [wɛrə], enche [ɛntʃ].

e) From OE. æ [æ], as slepen [slepən], strete [stɾɛt], fere [fɛr], breere [bɾɛr], seli [səli].

f) From OE. æ [æ], as orede [ɔɾɛd], bete [bɛt], he [hɛ], feet [fɛt], boche [bɔtʃ], stede [stɛd], bleden [bɛldən], fede [fɛd].

g) From OE. y [j] before ld, nd, as belde [bɛld], mende [mɛnd], kende [kɛnd].

h) From OE. e [ɛ] before ld, as feld [fɛld].

i) From OE. ie [iɛ] before ld, as welden [wɛldən], schele [ʃɛld], elde [ɛld].

j) From OE. ea [æɔ] before ld, as held [bɛld], felde [fɛld], helden [hɛldən], telde [tɛld].

k) From OFr. tonic e [ɛ], as gree [ɡrɛ], citee [sɪtɛ], pitee [pɪtɛ], clere [klɛr], bacheler [bəʃəlɛr], prophete [profɛt].

l) From simplification to e [ɛ] of OFr. -ee [ɛ], as journee [dʒuɾnɛ], countrie [kʊntʁe], valee [vɑlɛ], alee [ɑlɛ], armee [ɑɾmɛ].
m) From OFr. ie [iɛ] which became simplified in ME. to e [ɛ] in open syllables; before a liquid; before a simple final consonant, as achieve [ətʃi:v], creve [ɡrɛv], pewe [pɛ:s]; pere [peɾ], chere [tʃ ɛɾ], fere [fɛɾ]; carpenter [kɑpˈɛntɚ]; banere [bænɛɾ], rivere [rɪˈvɚ], boteler [ˈbotələr].

n) From OFr. ie [iɛ] which, upon losing the nasality, became ME. e [ɛ], as dene [dɛn], mene [mɛn], maintene [mɑɪnten], sustene [sʌstɪn].

[ɛ]

ME. e [ɛ] has the following sources:

a) From OE. eo [ɛo], as elk [ɛlk], self [sɛlf], herte [hɛrt], derk [dɛrk], cherl [tʃɛɾl].
b) From OE. eo [ɛo] preceded by w, as swerd [swɛɾd], werk [wɜːk], werld [wɜːld].
c) From OE. ie [iɛ] after ʃ [ʃ], as forgotten [fɔrˈʒɛntən], Zernen [ʒɛrnən], Zengeste [ʒɛŋɡɛst], Zewe [ʃɛv].
d) In the Kentish dialect of ME. from OE. y [j], as regye [rɛdʒi], kechene [kɛʃən], pet [pɛt], ken [kɛn], verste [vɛɾst], knel [knel].
e) From OE. æ [æ] before a consonant cluster, as
l) From OE. ea [æː] followed by e [e] which in the Northern dialect of ME. appeared as egh [eɡ]. Examples: degh [dɪɡ], flegh [flɪɡ], negh [nɪɡ], hegh [hɪɡ].

m) From OE. e [ɛ] in closed syllables, as felt [fɛlt],
web [web], bersten [berstən], melte [melt], swelte [swelt], cuelle [kwel], bed [bed].

n) In the Southern dialect OE. io [iə] became ME. e [ɛ] as melk [melk], selk [selk], selver [selvər].

o) From tonic OFr. e [ɛ] and e [e], as septre [sɛptʁ], dette [det], presse [prés], perche [pɛʁt], countesse [kuntez], castel [kastɛl], ferme [fɛrm], level [lɛvl], chapele [tʃapel].

p) From pretonic OFr. e [ɛ], as lepard [lɛpərd], metal [metal], secounde [sekund], orelat [ɔʁelat], questioun [kwɛstjɔn], destinee [destiɲ], peril [pɛʁil], vessel[vɛsəl], pleasaut [plezɔənt].

q) From OFr. prefixed particles initially in a word, as escape [ɛskap], espuyen [ɛspɥɛn], essayen [ɛsaɥɛn].

Note: a [a] frequently interchanged with e [ɛ] in such words as these.

r) From AN. e [ɛ] which, after losing the nasality, appeared in ME. as e [ɛ], as attempte [atəemp], membre [membʁ], gent [dʒɛnt], silence [sɪləns], entre [ɛntɹə].

s) From the same source as above but in pretonic syllables, as tempeste [tempest], plentee [plɛnte], gentil [dʒentil], sentence [sɛntɛns].
envie [envi], mencioun [mens'oun], emperour [im'perur].

t) From OFr. ue [ue], simplified in AN. to e [e], occurring in ME. as e [ë], if followed by r, as keueren [kævəren], keuercsheef [kævərsəf], kercheef [kərsəf]; couerfew [kuərfu] beside courfew [kuərfu].

u) From OFr. ie [iə] through AN. e [e], which in ME. was shortened to e [ë] before a consonant cluster except mutes followed by liquids, as aleggen [aIed³n], abreggen [abred³n].

[ë:] ME. e, ee [ë:] has the following sources:

a) From OE. ea [ə:] as heep [hə:p], bete [bə:t], leef [lə:f], eest [ə:st], dreem [dɹə:m].

b) From OE. æ [æ] as see [sə:], teche [tə:ʃ], rechen [rə:ʃən], clene [klə:n], lene [lə:n].

c) From OE. æ [æ] as sleep [sə:p], here [hə:r], eet [ə:t], leche [lə:tʃ], seed [sə:d].

d) From OE. e [ë] in open syllables, as mete [me:t], even [ë:vən], wele [wə:l], hele [hə:l].

e) From OE. eo [əʊ] through ME. e [ë] in open syllables, as mede [mə:d], mele [mə:l], fele [fə:l], tere [tə:f], smere [smə:f].
f) From OE. to through ME. in open syllables, as scherfen [scherfen].

g) In unstressed medial syllables from the weakening of OFr. to in ME., as curtesie [kyrtesi], couetous [kvetus].

h) From OFr. , monophthongized in AN. to , but before , s, t, t became in ME., as egle [egel], ogre [egre], negre [negre], ese [eze], diseese [disese], nees [nees], trete [trete].

i) From OFr. a which stood beside and was interchangeable with a in unstressed syllables in ME., as resoun [resoun], sesoun [sesoun], tresoun [tresoun], tretys [tretys], fature [fature].

j) Occasionally from OFr. which remained in ME., especially in open syllables or before or by lengthening of to , as cesse [cese], appelen [appelen], concele [concele], veel [veel], beate [beate].

k) From tonic OFr. which, only before became in ME., as hostel [hostel], naturel [naturale], cruel [kryel], auerele [auerele], leel [leel].

l) From the simplification of tonic OFr. to , as deese [deese], encresse [encresse],
ME. *a* has the following sources:

a) From OE. æ [æ], as bed [bad], blak [blak], asch [af], ex [aks], bar [bar], what [wæt].
b) From OE. ec [ɛ], as flax [flaks], all [al], taiwe [talwi], halle [hal], almost [alməst].
c) From OE. a [a], as lærke [lærk], aske [ask], halves [halvəs] or [halvəs], hatter [hætər], bradder [brədər], an [ən].
d) From OE. æ [æ], as fat [fat], mad [mad], ladder [ladər], bladder [blædər], nadder [nædər], blast [blast], gastly [gæstli].
e) From OE. a [a] in closed syllables, as lærpe [lap], mattock [matək], flat [flæt], stak [stæk], daschen [dæʃən], caste [kæst].
f) From OE. a [a] before nasals, and before a nasal followed by a voiceless stop, as rom [ræm], nam [næm], hamme [hæm], orammen [ɔːrəmən], camp [kæmp], stampe [stæmp], man [man].
g) From OFr. a [a] shortened before as, och [tʃ], and before l, r followed by a consonant, as passe [pas], cacchen [kɔtʃən], balle [bal], fals [fæls], ark [ɑːk], charre [tʃaːrə].
h) In the ME. combinations -arie, -ary [aːɪ], from L. -arium [aːrium] through AN. -arie [aːɪ], as adversary, adversary [adveɪrəsərɪ], apothecarie [apətɛkərɪ], contrarie [kəntɹərɪ], marien [maːriən], carien [kaːriən], tarien [taːriən].

1) From OFr. a [a] in pretonic syllables of Romance origin, as chapele [tʃæpl], Latin [latin], habit [habit], dragoun [dɹægʊn], armure [aɾmyɾ], mariner [maɾinəɾ], charitee [tʃaɾɪte].

[a]

ME. a [a] has the following sources:

a) From OE. a [a], as sue [swa], pape [pæp],
spake [spæk], rad [ɾad], tade [tad], laf [laːf].
Note: This change took place in the North only.

b) From OE. a [a] in open syllables, as ape [æp],
hate [hæt], lake [læk], flake [flæk], fare [faɾ].

c) From OE. a [a] in open syllables before nasals,
as name [næm], lame [læm], same [sæm], bone [bən], mane [mən], wane [wan].

d) From OE. ea [æː] in open syllables, as ax [ӕks],
bark [bɑːk], arm [ərm], warm [wɔːm], spearwe [spærə], narwe [nærə], schaft [ʃaft].
e) From OE. a [a] before a nasal followed by a voiced stop, as oamb [kamb], sand [sænd], sang [sæng], lang [læŋ], atæng [ætæŋ].
Note: This change appeared in the North only.

f) From OE. a [a] followed by ld, as ald [æld], old [old], bald [bald], hald [hald], bihald [bɪhald], talde [tæld], salde [sæld].
Note: This condition appeared in the North only.

g) From OE. a [a] followed by ɛt (ɛt), as ɛght [æxɛt], næght [næxɛt].
Note: This was the case in the North only.

h) From OFr. a [a] in open syllables; before mutes followed by liquids; before st; and before single final consonants, as cave [kæv], place [pleɪs]; able [æbl], fable [fæbl], miracle [mɪrɪkəl]; haste [hæst], waste [wæst], debat [dɪbæt], caas [kæs], prelast [prɛlæt], special [ˈspɛʃəl], real [rɛl].

i) From OFr. a [a] in the endings -acioun, -acent, -acious, as nacioun [næsiun], dominacioun [dəmənəʃən], gracious [griəʃəs], pacient [ˈpæʃənt], pacience [ˈpæʃəns]; perhaps also favour [faʊər], nature [ˈnætʃər].

j) From OFr. a [a] which in ME. before mn, nn, nk, ng lost the nasality, as damɒnen [dæmɒnən],
Anne [an], frank [frenk], langage [lanʒadʒ], englische [əŋɡwiʃ].

k) In pretonic syllables a [a] frequently stood beside e [ɛ], especially when followed by r [r]. The OFr. e [ɛ] was the original vowel in these uses. Examples of such pairs are merc haunt [mərʃaʊnt], marchaunt [maɾʃaʊnt]; sermon [sɛrμʌn], ser mon [sɛrmʌn]; persoune [pɛɾsʌn], persoun [pɛɾsun]; partri che [pəɾtɾɪʃ], partriche [pəɾtɾɪʃ]; garlaund [ɡəɾlaʊnd], garlaund [ɡəɾlaʊnd].

Note: 1. Unaccented initial vowel a [a] often stood beside e [ɛ], as escapen [ɛskæpən], assaen [ɑɾsəpən]; essayen [ɛsəpiɛn], assaen [ɑɾsəpiɛn], essayen [ɛsəpiɛn], assaen [ɑɾsəpiɛn].

2. This unaccented vowel also disappeared, as scapen [skæpən], sayen [spəiɛn].

3. Another ME. a [a] developed as an interchangeable vowel with ME. e [ɛ] from AN. e [ɛ] after loss of nasality, as anollen [ɑɾniən], anoiten [ɑɾniətən], anoiten [ɑɾniətən]; ambuschen [æmbyʃən], ambuschen [æmbyʃən].
[O]

ME. o [ɔ] has the following sources:

a) From OE. o [ɔ] in closed syllables, as lot [lot], pot [pot], ook [ook], stok [stok], fox [fɔks], gospel [gospel].

b) From OE. o [ɔ] before a consonant cluster, as bosme [bɔzmɪ], fodder [fɔdə], schood [ʃʊd], softe [sɔft], wednesday [wɪdnɛzdeɪ].

c) From tonic OFr. o [ɔ] before consonant clusters except st, ch, as robben [rʊbən], coffin [kəfin], port [pɔrt], work [wɜrk], force [fɔːs].

d) From pretonic OFr. o [ɔ] which remained in ME., as office [ˈɒfɪs], hostel [ˈhɒstəl], folie [ˈfɔli], comoun [ˈkɒmʌn], torment [ˈtɔrmənt].

[C]

ME. o [ɔ] has the following sources:

a) From OE. eo [eə] after palatals, as schort [ʃɔrt], bishop [ˈbɪʃəp], schoule [ˈʃɔul], scholde [sɔld].

b) From OE. eo [eə] preceded by w, as sword [ˈswoːd], work [wɜrk], world [ˈwɜːld], worp [wɔːp], worship [ˈwɔʃɪp], soster [ˈsɒstər].

c) From OFr. o [ɔ] in open syllables; before stops followed by liquids; before oh, at; and before
single final consonants, as note [nɔt], cloke [klɒk], robe [rɒb]; noble [nəbəl]; broche [bɾoʃ], aproche [əpɾoʃ]; host [hɔst], host [hɔst], ooste [kɔst]; cloos [klʊs], enclos [ɛŋklɔs].

d) In the forms -orie, -ory [ɔrɪ] from AN. -orie [ɔrɪ], as glorie, glory [ɡlɔrɪ]; storie, story, [ˈstɔrɪ]; memorie [məmərɪ], ivorie [ɪvərɪ].

e) From OFr. a [a] which, upon losing the nasality and appearing before mp, mb, nt, nd, nce, nch, nge, was changed in form and sound respectively to au [ɔ], as laumpe [lɔmp], ensaumple [ɛŋsəmpl], chaumbre [tʃɔmbɹ], flaumbe [flɔmb], aunt [ɔnt], graunte [ɡrɔnt], launde [lɔnd], sclaundre [sklɔndɹ], chaunce [tʃɔns], daunce [dɔns], braunche [bɾɔntʃ], launche [lɔntʃ], graunge [ɡrɔndʒ], aunsel [ˈɔndʒəl].

[ɔː]

ME. ɔ [ɔː] has the following sources:

a) From OE. ɔ [ɔ], as some [sɔmp], tode [tɔ:d],
goon [ɡɔ:n], brood [bɾɔ:d], hoot [hɔ:t],
woot [wɔ:t], or [ɔɹ], loom [lɔːm].

b) From lengthening of OE. ɔ [ɔ] in open syllables in the 13th Century, as open [ɔːn], hope [hɔːp], smoke [sɔ:mək], stove [stəv], rose
Note: If the following syllables closed in \( e, e, a, n, y \), the lengthening did not always take place, as \( \text{cole} [kəl], \text{dore} [dər], \text{botem} [bətəm], \text{trodem} [trodəm], \text{body} [bədi], \text{holy} [həli] \),
c) From OE. \( eo \) [\( eə \)] preceded by a palatal, as \( \text{goke} [\text{joːk}] \).
d) From OE. \( o \) [\( o \)] before a nasal followed by a voiced stop, as \( \text{comb} [kəmb], \text{clomp} [kləmp], \text{sond} [sənd], \text{wond} [wənd] \).

**[\( o \)]**

\( \text{ME. } o \) [\( o \)] has the following sources:

a) From OE. \( o \) [\( o \)] before \( l \), as \( \text{gold} [\text{gold}], \text{molde} [\text{mold}] \).
b) From OE. \( eo \) [\( eə \)] after palatals, as \( \text{schoo} [\text{ʃo}], \text{schook} [\text{ʃok}], \text{schooŋ} [\text{ʃop}] \).
c) From OE. \( eo \) [\( eə \)], as \( \text{zode} [\text{ʒod}], \text{zho} [\text{ʒho}], \text{achoke} [\text{ʃək}], \text{zole} [\text{ʃəl}] \).
d) From OE. \( o \) [\( o \)], as \( \text{do} [\text{do}], \text{schole} [\text{ʃəl}], \text{good} [\text{ɡʊd}], \text{goos} [\text{ɡʊs}], \text{mone} [\text{mɒn}], \text{sone} [\text{son}], \text{floor} [\text{floʊ}] \).
e) From OFr. \( o \) [\( o \)] which stood beside OFr. \( ue \) [\( uə \)] in stem-accented verb forms and which appeared in ME. verb-forms at times \( o \) [\( o \)], at times
ME. u [U] has the following sources:

a) From OE. u [U] (much of the time the sound was represented by o in ME., especially before or after m, n, u, v, w) as pulle [pul], full [fyl], wulf [wulf], ugly [Ugl]; som [syl], sone [sUn], woke [wUk], spore [spUɾ].

b) From OE. u [u] before a consonant cluster, as husbonde [hUsbʊnd], rust [ᵶst], udder [Udəɾ], tusk [tUsk], Thursdal [ᵻUrzdal].

c) From OE. y [Y] before sch [ʃ], ch [ᵶ], eg [eɡ], as rusche [ᵶʃ], muche [mUsʃ], suche [sUsʃ], alucchen [klUtʃən], cugel [kUdl].

d) From OE. io [io] after palatals, as schulen [ᵶUln], Zung [ᵶUn], Zewe [ᵶθ].

e) From OE. i [i] after w (here the i was written o), as woman [wUmən].

f) From OFr. u [U] before a consonant cluster except before mutes followed by liquids, as grucchen [ɡᵶltʃən], turtle [ᵶUrtd].
g) From pretonic OFr. u [U] derived from VL. o [ɔ] in open syllables and from VL. o [ɔ] in closed and open syllables, as supere [sʏpəɾ], sudain [sʊdɑːn], ouerteis [kʊfɛis], moneis [mʊnɛi], nurische [nʊɾɪʃ].

h) From AN. u [U] which appeared in ME. (written o, u) before mm, mp, mb, with loss of nasality, as somme [sʊm], trompe, trumpe [tʀʊmp], numbre [nʊmbrɛ], encumbren [ɛŋkʊmbrɛn].

[u]

ME. u [u] has the following sources:

a) From OE. u [u] (frequently written in ME. ou, ow), as cou [ku], cow [ku]; hu [hu], hou [hu], how [hu]; proud [pɾuːd], cloud [kluːd], toun [tʊn], scume [skʊm].

b) From OE. u [U] before ld, mb, nd and which appeared by analogy as ou [u] in ME., as doumb [dʊmb], pound [pʊnd], hound [hʊnd], sound [sʊnd], wounden [wʊndən].

c) From OE. eo [eə] followed by w, as təw [tju], təw [tju], təwer [tjuːr], təur [tjur].

Note: In these cases OE. eo [eə] was initial, but during EME. times it became a rising diphthong with a palatal glide preceding.
d) From OE. $o_e$ followed by $w$ which, however, were united in ME. $ou$ [u], as $four$ [fuɻ], $fourti$ [fuɻti], $fourtene$ [fuɻten], $troupe$ [truɻ].

e) From OE. o [o] before the velar $z$ [ʃ], written $ou$ [u], as $bouʒ$ [buɻ], $plouʒ$ [pluɻ], $slouʒ$ [sluɻ].

f) From OE. u [u] followed by $ۇ$ [g], written $ow$ [u], as $fowel$ [fuɻ], $sowe$ [su], $more$ [mu].

g) From the absorption by OE. u [u] of $w$ from OE. $ۇ$ [g], as $bouʒen$ [buɻan], $bouwen$ [buɻan], $droune$ [drun], $drougt$ [druɻt], $drowt$ [drut].

h) From OFr. u [u] in open syllables and before mutes followed by liquids, also before oh and before single final consonants, as vowel [vu], $allowen$ [aluan], route [ɾut]; double [duɻel], $noudre$ [nuɻdə], $ocouchen$ [kuɻʃən]; stout [stut], flour [flur], $jalous$ [dʒaləs] beside $jelous$ [dʒeləs], emperour [ɛmpəɻə].

i) From pretonic OFr. u [u] which became lengthened before vowels in ME., as powere [puɻə], $towaile$ [tuaɻə], $bowel$ [buɻə]; outrage [uɾɹədə] is an exception.

j) From AN. u [u] which lost the nasality and became lengthened and raised to $ou$ [u] before $mb$, $n$, $nt$, $nd$, $ns$, $næ$, $nə$, as $toumbe$ [tumb],...
soun [sun], renoun [rənun], mount [munt], round [rund], bounde [bund], announce [anuns], plunge [plund]; also lioun [liun], prisoun [prizun], condioun [kəndisun].

Note: The development of ou [u] likewise took place in pretonic syllables, as countee [kunte], mountaine [muntain], beside countree [kuntře], countreis [kuntři].
B. The Diphthongs

\[1\j\]

ME. \textit{1}z \ [1\j\] has the following sources:

a) From OE. \textit{eo} [o\j\] before \textit{g} \ [j\], as \textit{flige} \ [fli\j\], \textit{ligge} \ [l\j\], \textit{pigel} \ [p\j\], \textit{ashe} \ [s\j\], \textit{lize} \ [l\j\].

b) From OE. \textit{ie} \ [i\j\] before \textit{z} \ [j\], as \textit{higher} \ [hi\j\j\], \textit{izland} \ [i\j\land\], \textit{lize} \ [l\j\j].

\[1\u\]

ME. \textit{iw}, \textit{ew} \ [1\u\] have the following sources:

a) From OE. \textit{i} \ [i\] before \textit{w}, as \textit{stiward} \ [st\i\u\r\d\], \textit{iwe} \ [i\u\], \textit{spiwen} \ [sp\i\u\n\].

b) From OFr. \textit{eu} \ [e\u\] for an older \textit{ou} \ [\j\u\] derived from L. \textit{o} \ [o\] plus \textit{u} \ [\u\], appearing in tonic and pretonic syllables in ME. as \textit{ew} \ [1\u\], as \textit{curfew} \ [k\u\f\i\u\], \textit{fewaille} \ [f\i\u\a\i\], \textit{jewel} \ [d\j\u\e\l\].

\[e\u\]

ME. \textit{eu}, \textit{ew} \ [e\u\] have the following sources:

a) From OE. \textit{ie} \ [i\j\] before \textit{w}, as \textit{trewe} \ [t\r\e\u\], \textit{clewen} \ [k\l\e\u\n\], \textit{hewe} \ [h\e\u\], \textit{newe} \ [n\e\u\].
b) From OE. eu [ae] before w, as rewe [réU],
bleu [bleU], knew [kneU], grew [gréU].
c) From OE. ə [i] before w, as steward [steUaǩ],
eve [eU], Tewesdai [teUzdaJ].
d) From OFr. eu [iU], ieu [iU] derived from VL.
eu [eU], as Jew [dyeU], hebrew [hebreU],
bleu [bleU], adewe [adeU].

[ε1]

ME. ei, ey [ε1] have the following sources:
a) From OE. ə [æ:] before ə [J] as neie [nεi:],
grei [grei], eiper [ειείρ], neiPER [niειείρ].
b) From OE. e [ε] before ə [J], as plei [plei],
geil [geil], rein [rein].
c) From OE. e [ε] before ə [J], as tweie [twει:],
wreie [wreie].
d) From OE. ea [æə] before ə [J], written in
ME. ey, as hey [heι], deve [dεi], eye [ει],
fly [fleι].
e) From tonic OFr. ei [ε] remaining in ME., as
lei [leι], palefrei [palffει], deceit
[dεεειt], feire [fειr], receive [rεεεειv].
f) From OFr. ei [ε] which before ə often became
ε [€:], as deie [dειε], beside dees [dεεε],
burseis [byεdειειε] beside burges [byεdεεεεε],
harness [hɑrˈnɛs] beside harness [hɑrˈnɛs],
courteis [kuːtˈɛs] beside courtees [kuːtˈɛz].
g) In initial pretonic syllables AN. ei [ɛi] re-
mainned in ME., as preiere [prɛiɛɾ], leisir
[leɪzɪɾ], veilæ [veɪlæd].
h) From OFr. ei [ɛi] which in unstressed medial
syllables in ME. was reduced to e [ɛ]; both
forms appeared, however, as curteisie
[kuːtɛizi], beside curtesie [kuːtɛzi],
beneisoun [bɛnɛizʊn] beside benesoun
[bɛnɛzʊn] and benisoun [bɛnɪzʊn], couetous
[kʊvɛtʊs], beside couetous [kʊvɛtʊs].
i) From AN. ei [ɛi] which, under loss of the
nasality, remained ME. ei [ɛi], as plein
[plɛɪn], veine [vɛi̯n], denziein [dɛnzɛi̯n],
douzine [duzɛɪn], peint [pɛint].
j) From AN. ei [ɛi] derived from OFr. e [ɛ] before
l [ɬ], n [n], remaining in ME. in tonic and
pretonic syllables, as counsel [kʊnsɛl],
appareil [aˈpaʁɛl], reille [ʁɛil], reine
[ʁɛin], restreine [ʁɛstɾɛin]; deintee [dɛint].
k) From OFr. ai [ɛi] which, in unstressed medial
syllables in ME., frequently became ei [ɛi], as
veneisoun [vɛnɛi̯zʊn], oreisoun [ɔɾɛi̯zʊn] beside
venisoun [vɛnɪzʊn], orisoun [ɔɾɪzʊn].
[εːU]

ME. eu, ew, eau [εːU] has the following sources:

a) From OE. æ [æː] before w, as lewed [lɛːud],
lewd [lɛːud].

b) From OE. ea [ɛː] before w, as dewe [dɛːU],
heu [hɛːU], fewe [fɛːU], schrewe [ʃɛːU].

c) From OE. e [ɛ] before w, i [v], as euete
[ɛːUt], ewte [ɛːUt] (Modern E. newt [njut]).

Note: The OE. form was efete [ɛfətə].

d) From OE. eo [ɛo] before w, as ewe [ɛːU].

e) From OFr. eau [ɛau] derived from VL. el, eal
followed by a consonant, appearing in ME.
only in pretonic syllables, as beautee
[beːUte] and beutee [beːUte], lewtee
[1ɛːUte].

[aɪ]

ME. aɪ [aɪ] has the following sources:

a) From OE. æ [æ] before æ [æ], as dai [daɪ],
mai [maɪ], maiden [maɪdən], snail [snail],
wain [waɪn].

b) From tonic OFr. aɪ [aɪ], as Mai [maɪ], gai
[gaɪ], awaite [awaɪt], moire [maɪr], waien
[paɪn], delaie [dælai].
c) From OEFr. ai [aɪː] which lost the nasality in ME., as claimen [klæɪmən], grain [ɡreɪn], vein [vɛɪn], certain [sɜːtən], plaint [plɑɪnt], saint [sɑɪnt].

d) From AN. ai [aɪ] derived from a [ə] before l [ɬ], n [ŋ], as travail [trævəl], bataile [bətəl], vitéiles [vɪtəlz], arivaile [ərɪvəl], faile [fəl], mountaine [mʌntən], Spaine [spɛɪn], gaine [ɡɛɪn].

[au]

ME. au [ɑːu] has the following sources:

a) From OE. ea [ɛːə] before h [ɬ], as sauɭ [sauɭ], tauɭt [təʊlt], slaughter [slaʊtəɹ].
   Note: This condition prevailed in the Midlands and South only.

b) From OE. æ [æː] before h [ɬ], as tauɭte [təʊlt], tauɭt [təʊlt], raught [raʊlt].

c) From OE. a [a] before w, f [v], s [z], as hawk [hɔuk], awkward [əʊkwərd], sawe [səu], yslawe [ɪsləu].

d) From OE. a [a] before w, as snaɭ [snaɭ], slau [sləu], su̯per [su̯pəɹ], sau [səu].
   Note: This condition prevailed in the North only.
e) From OFr. **au** [au] remaining in tonic and pretonic syllables in ME., as **sauf** [sauf], **cause** [kauz], **faute** [faut], **esaut** [esaut], **laume** [baum], **auter** [auter], **hautain** [hautain], **hauberk** [hauberk].

Note: 1. Toward the end of the ME. period **au** [au] before labials was simplified to a [a], as **save** [sav], **savage** [savag].

2. A ME. **au** [au] in pretonic syllables developed also by contraction of OFr. a plus **v**, as **aventure** [aventyr], ME. **aunture** [auntyr]; **paveunter** [paveunter] (per adventure), **lauendere** [launder], and **launder** [launder].

**[65]**

ME. **oi** [oi] has the following sources:

a) From tonic OFr. **oi** [oi] as **loie** [loie],

   **enjoien** [andzjóin], **noise** [noiz], **chois** [tʃɔis].

b) From tonic OFr. **oi** [oi], as **Trole** [tʁɔl],

   **vois** [vois], **mcoiste** [moist], **angoisse** [mois], **crois** [kʁɔis].

c) From pretonic OFr. **oi** [oi], as **loious** [loius],

   **poisoun** [poizoun].

d) From OFr. **oi** [oi], the nasality being lost in ME., as **point** [poin], **enointen** [enointen]
beside anointen [anci:ntən], joint [dʒɔɪnt], coin [kaɪn], accointe [akɔɪnt], and aqeinte [əkwəɪnt].

e) From AN. oj [ɔj] before l [l], n [n] whose palatalization was lost, as oile [ɔil], soile [sɔil], boilen [ˈboɪən], Bourgoin [ˈboɾɡwa], Coloine [ˈkɔloʊn].

[ɔU]

ME. ou, ow [ɔU] has the following sources:

a) From OE. a [æ] before h [h], as doug [dʌU], ougt [ɔUx], nought [nɔUx].
b) From OE. a [æ] before w, as snow [səU], know [knəU], crowe [kɒr], nowe [nəU].
c) From OE. o [ɔ] before g [g], as boze [boU], bowe [boU], yflowe [ɪfləU].

[ɔU]

ME. ou, ow [ɔU] has the following sources:

a) From OE. o [ɔ] before h [h], as troug [tɾəU], cougp [kʰəU], bougte [bɒUx], fourten [fəUx].
b) From OE. o [ɔ] before w, as blowe [bɭəU], lowe [ləU], bowe [bəU], slowe [sləU], ynowe [ɭəU].
ME. u1 [u1] has the following sources:

a) From tonic OFr. u1 [u1], as *destruien* [destruieyn], *anguiseh* [anguishe].

b) From OFr. u1 [u1] written both o1 [o1] and u1 [u1] in a few ME. words, as *anuien* [anuien], *anui* [anui], *vuiden* [vuiden].
C. The Consonants

[p]

ME. p [p] has the following sources:

a) From OE. p [p], as pit [pit], pound [pound], plei [plei], pride [pride], clippe [clippe], hemp [hemp].

b) By assimilation when m is followed by n or t as nemmen [nemmen], nemppen [nemppen]; emti [emti] (OE. emtig [emtig]), empti [empti].

c) From OFr. p [p], as part [part], place [plae], space [spae], leprous [leprous], peple [peple], lampe [lampe], trespass [trespass].

Note: A p [p] glide was assimilated between m and n or t, as dampnen [dampnen], solempme [solempme], tempten [tempten].

d) Sporadically initial OFr. b [b] became ME. p [p], as purse [purs], putten [putten], pudding [pudding].

[b]

ME. b [b] has the following sources:

a) From OE. b [b], as ribbe [ribb], blak [blak], webbe [webb], doumb [dumb], ebbe [eb].
b) By assimilation when m is followed by l, r, or a vowel, as schamble [səml], brembel [breməl], ūmbel [əmbəl], slumbren [sləmbrən], crumbe [kəmb].

c) From OFr. b [b], as bataile [bataɪl], debaat [dəbat], table [təbal], noblesse [nobləs], labour [labər], robe [rəb], humble [həmbəl].

[\text{t}] ME. \text{t} [t] has the following sources:

a) From OE. t [t], as toun [tʊn], two [twə], tree [tɹi], swete [swet], better [bətər], melte [məlt].

b) By assimilation when s is followed by n, as as listene [listən], clistene [klistən].

c) Finally after s an inorganic t was added, as againes [əɡainz] and against [əɡainst], bihest [bɪheɪst] (OE. həs [hə:s]), betwix [bətwɪks] and betwixt [bətwɪkst].

Note: Unification of OE. elements caused the loss of t, as OE. betata, ME. best; OE. latosta, ME. last; OE. East-Seaxon, ME. Essex.

d) In the past tense and in the past participial tense of weak verbs the inflectional endings -de, -d after -ld, -rd, -nd stems and also sometimes after voiced consonants changed to
-te and t, as bilte [bǐlt], girte [ɡɪrt], sante [sɛnt], felte [fɛlt], dwelte [dwel], bilt [bilt], left [lɛft], leste [lɛst].

Cf. a) under [d], p. 71.

e) By assimilation of t from [θ] or [ð]

following an original t in particle words,
as atte (gate) [atə(gat)] from atpe (gate) [atθ(gat)], atte laste [at (ə)last], wostow [wɔstu] (OE. wast pu [wast θu]).

f) After the voiceless fricatives f [f], s [s],
s [s, z] OE. p [θ] went to t, as āfte [θɛft] (OE. āpoθ [θəfθ]), nostrils [nɔstrilz] (OE. nosepirles [nəzəθərleθ]), sîzte [sɪst] (OE. gesihp [gəsiθ]), drουzte [drʌxt] (OE. drugəp [drʌgθ]).

g) From OFr. t [t] as tour [tʊr], stable [stæbl], doute [dʊt], countree [knutrə] frut [fryt], court [kuft].

Note: As a result of suffixal interchange a few OFr. words with n ending added t in ME., as tirant [tɪrənt], fesaunt [fɛsaunt], parchement [pɑrʃmɛnt], pagenent [pædʒent], auncient [oʌnsiɛnt].
ME. \( d \) [d] has the following sources:

a) From OE. \( d \) [d], as deep [dep], blade [blad], made [mad], hadde [had], bold [bold].

b) Assimilated as a glide between \( l \), \( n \) and a following \( r \), as alder [alder], plunder [plunder], kindred [kindred].

c) From simplification of OE. \( b \) [b], as coude [kud]; also after \( r \), as mordre [mordre], aforde [aforde], burdene [burden].

d) From OFr. \( d \) [d], as dame [dam], melodic [melodic], condicioun [condicioun], poudre [poudre], round [round].

Note: 1. Occasionally in ME. a \( d \) [d] was attached to a final \( n \), as expoune [ekspunj] and expounde [ekspund], somoune [sumun] and somounde [sumund], jaunice [dzUnis] and jaundice [dzUndis], riban [riban] and riband [riband], soun [sun] and sound [sund].

2. Sporadically ME. \( d \) [d] stood for OFr. \( t \) [t], as luperdy [dzypardi] for luperdi [dzyparti], diamauld [diamauld], waraund [waraund] (OFR. guarant [guarant]).

3. In ME. \( d \) [d] was used now and then before \( l \) [l] representative of OFr. \( s \) [s] which in the Eleventh Century had become silent before
and which never appeared in ME.

Examples of revivals in d [d] are medle [mɛldə] and melle [mɛl], medlee [mɛl], and mellee [mɛle]. Sporadically also idle [ɪdəl] and ilde [ɪld] beside the usual ile [ɪl] (OFr. isle [ɪzəl]).

[k]

ME. k, ɔ, ɑ [k] has the following sources:

a) From OE. ɔ [k], which in ME. was represented
   by ɔ before back vowels and l and r, but
   before front vowels and n by k, as corn [kərn], cow [ku];
   clif [klɪf], climbe [klimb];
   craft [kraft], ketel [kətəl], knee [knu];
   kniȝt [kniːt].

b) In some ME. words k was assimilated between
   s and l, as sclender [sklændə], sclain [sklain],
   sclepe [sklep].

c) In the digraphs ɔc, ɔk [sk] from old Norse loan-
   words (k [k] remained whether before or after
   back vowels), as skill [skɪl], skirt [skɪrt],
   sculke [skʌlk], sky [ski], sek [sek], tusk [tʌsk].

d) From OE. ɔ [ʃ], appearing in the North only, as
   carl [kɑːl], kirk [kərk], mikel [mɪkəl], like
   [lɪk], sek [sek], fink [fɪŋk].
e) From the OE. digraph *ow [kw], written *au [kw]
in ME., as *quene [kwen], *quick [kwik],
*disques [bikweΩ].
f) From *x [ks] in OE., as *flax [flaks], *six [siks],
*fox [foks], *fax [faks].
g) From OE. *h [x] after l, as *halk [halk], *elk [elk],
*selk [selk] beside *sele [sel] (Modern E. seal [sil]).
h) From the digraphs *au, *augh [kw], representing in
the North the OE. initial hw [hw], as *qua, *quha
[kwa]; *quam, *quham [kwam]; *quat, *quhat [kwat].
i) From OFr. e [k], as *corage [kUrads], *cuye [kri],
*clos [kls], *scorn [skOrn], *bacoun [bakun];
*musik [myzik], *duk [dyk], *questioun [kwestjoun].
j) From OFr. o [k] spellings which may be explained
as learned forms or as belonging to the Picardian
or the Northern section of the Norman dialects, as
*cape [kads], *carole [kaʃol], *capitain [kapitaʃ],
*catel [kaʃol], *calice [kaʃi], *canchen
[kaʃi].

Note: Appearing beside some of the spellings
with e [k] was *ch [tʃ], as *cheuetain [tʃtvtaʃ],
*chetel [tʃetal] and *chetel [tʃetel], *chacen
[tʃasan]; *chargen [tʃafdeʃan] for carie;
*chalice [tʃaliʃ] for calice; *chalenge [tʃalindʒ]
for calenge.
k) VL. ou [kw] usually appeared in OFr. as o [k], but ME. retained ou [kw] before a [a], e [ɛ], i [ɪ] in Romance words, as quantitee [kwantite], qualitee [kwalite], quarter [kwarter], acquere [akwɛr], conquere [konkwɛr], consequent [konsekwent], questiou[n] [kwastʃən], quy[t] [kwit], equa[l] [kwæl].

Note: 1. Before o [ɔ], u [u] ou [kw] became ME. k [k], as likour [likuʁ], col [kɔl], acoien [akɔien].

2. Sporadically OFr. o [k] plus ue [ɛu], ui [uɪ] became ME. ou [kw], as ouere [kwɛr], quiver [kwɪvɛr], queint [kwɛnt], aqueinte [akwɛnt], and squire [kwɪr], squirel [skwɪrəl].

ME. g [g] has the following sources:

a) From OE. g [g], as god [gɔd], gilde [gɪld], grene [ɡrɛn], stagge [stæɡ], finger [fɪŋɡəɹ], ring [rɪŋ], eggges [ɛɡz].

b) In the north of England g [g] following i from OE. ɪg [ɪɡ] appeared in a few nouns and verbs, as lig [lɪɡ], rig [rɪɡ], brig [bɹɪɡ], big [bɪɡ].
c) From OFr. ə [ɛ], as ear [ɛa], route [ɹut],
    grace [ɡrɑs], lesat [lɛsat], vigour [vɪɡuər],
    degree [dəɡre], bargain [bɑɹɡən], pilgrim
    [ˈpɪlɡrɪm], tigre [ˈtɪɡrə].
Note: Posttonic or and gr were interchangeable in sucre [ˈsukər] and sugre [ˈsʊɡrə].

d) From Germanic loan-words with initial ʋ [w],
    which became OFr. ɡw [ɡw], later ɡ [ɡ].
In AN. words ʋ [w] was mostly preserved,
    and accordingly in ME. words, but before ı
    [ɻ], ɡ [ɡ] was also used, as glide [ɡɪd],
    rise [rɪz], alike [ɛl], begilen [bəˈɡɪlən].
Note: OFr. ɡ [ɡ] plus ʉə [uə], ʊ [ʊ] became
    ME. ʉw [ɡw] plus ə [ɛ], ɪ [ɻ], as anguische
    [ˈæŋɡwɪʃ].

ME. m [m] has the following sources:
    a) From OE. m [m], as make [mək], man [mæn],
        muchoe [mʊtʃ], swimme [swɪm], ram [ræm],
        lamb [læm].
    b) From simplification and assimilation of n
        to m preceding voiceless consonants, as
        hemp [hæmp], brimston [ˈbrɪmstən].
    c) From OFr. m [m], maladie [maˈladje], merci [mɛʁs].
fame [fam], chaumbre [ʃə'umbə], flum [fl̩m], rime [rim].

d) Sporadically assimilated from OFr. n [n] before labials or finally, as noumpere [numpeɾ], comfort [kəmfort]; pilgrim [pilɡım], velim [vɪlim], ransum [ransum], botoum [bʊtum] and botoun [bʊtun], performe [pɪrfoɾm] and parfourne [pərfurın].

[n]

ME. n [n] has the following sources:

a) From OE. n [n], as nou [nu], nekke [nɪk], note [nUt], henne [hɪn], clense [klɛnz], [θɪn].

b) From weakening of OE. inflectional endings in -m, as kingen [kɪŋən], goden [gədən].

Note: This n, representing a weak -m ending, soon fell away, as kinge [kɪŋə], good [gʊd].

c) From the reduction of OE. ng [ŋ] before s [ʃ], k [dʒ] to n, as benchen [θæntʃən], bench [bentʃ], Finch [fɪntʃ], sinren [sɪndɾən].

d) From OFr. n [n], as nice [nis], noble [nɔbəl], enemi [ɛnəmi], vain [væin], noun [nun], ounour [ɔnʊf], chaunce [ʃɔnʃ].
e) From OFr. n [n] whose palatalization was lost, as mountaine [mountain], chestaine [chestain], vine [vin], feine [fein], reine [ʁein].

Note: An n [n] was assimilated before ge [dʒ] in words of OFr. origin, as messenger [mesindoʃɛ̃] and messenger [mesindoʃɛ̃].

ME. 1 [l], written n before g and k, has the following sources:

a) From OE. ng or nk, as drunken [drɪŋkən], sinken [sɪŋkən], singen [sɪŋɡən], sungen [sʊŋɡən], bringe [brɪŋɡ].

b) In unaccented medial syllables before g [ɡ], [ɡ] was assimilated, as nɪztngale [nɪztŋɡal] (OE. nihtegale [nihtegal]).

c) From OFr. n [n] before lingua-velars, as frank [frɑ̃k], conquéorr [kɔ̃kwɛʁʁ], conquéest [kɔ̃kwɛst], langaçe [lɑ̃ɡadʒ], stranglen [stræŋɡlen].

[1]

ME. 2 [l] has the following sources:

a) From OE. l [l], as lord [lɔːrd], flee [fle], glad
b) The assimilation of \( \ell \) followed by \( n \) to \( ll \), as 
\[ \textit{elle} [\ell l] \text{ beside } \textit{elne} [\ell n], \textit{mille} [m\ell l] \text{ beside } \textit{milne} [m\ell n], \textit{millere} [m\ell \ell r], \text{ beside } \textit{milnere} [m\ell n\ell r]. \]

c) From OFr. \( \ell [l] \); as \textit{labeur} [labu\( \tilde{r}\)], \textit{lessoun} [lesun], \textit{blame} [blam], \textit{flour} [flu\( \tilde{r}\)], \textit{palm}, \textit{parlement} [parl\( \tilde{e}\)ment], \textit{fals} [fals].

Note: An \( l [l] \) was inserted in posttonic OFr. \( -\textit{oe} [\textit{p}\textit{\o}], -\textit{be}, [\textit{b}\textit{\o}] -\textit{que} [\textit{k}\textit{\o}] \) in polysyllabic words, as \textit{maunceple} [maunsip\( \tilde{e}\)], \textit{principl} [prin\( \tilde{s}\)ipl], \textit{silable} [silab\( \tilde{e}\)], \textit{chronicle} [k\( \mathfrak{h}\)ronik\( \tilde{e}\)].

d) From OFr. \( \ell [\lambda] \) whose palatalization was lost, as \textit{asaille} [asail\( \tilde{e}\)], \textit{faile} [fa\( \tilde{e}\)], \textit{maile} [mail], \textit{vitailes} [vital\( \tilde{e}\)lz], \textit{boilen} [bo\( \tilde{e}\)len], \textit{peril} [pe\( \tilde{\text{\textcircled{r}}}\)il], \textit{travail} [trav\( \tilde{a}\)il].

e) From sporadic dissimilation of OFr. \( r [\tilde{r}] \) to \( l [l] \), as \textit{pilgrim} [pilgr\( \tilde{r}\)im], \textit{marble} [marb\( \tilde{e}\)l] and \textit{marbre} [marbr\( \tilde{e}\)], \textit{pourple} [p\( \tilde{\text{\textcircled{r}}}\)ple] and \textit{pourpre} [p\( \tilde{\text{\textcircled{r}}}\)pre].

\[ [\tilde{r}] \]

**ME. \( r [\tilde{r}] \) has the following sources:**

a) From OE. \( r [\tilde{r}] \), as \textit{re\( \tilde{\text{\textcircled{r}}}\)d}, \textit{preh\( \tilde{\text{\textcircled{r}}}\)st}.,
free [fʁe], care [kaʁ], erl [ɛɾl], better [bɛtər], fader [fades].

b) From OFr. ð [ð], as round [ɹund], preie [pʁe],
frut [fʁyʁ], grace [ɡʁas], and pore [poʁ],
certain [sɛrtain], partie [parti], sure [syʁ].

[f]

ME. ð, ph [f] have the following sources:

a) From OE. ð [f], as fader [fades], fat [fat],
finde [find], after [aftər], oft [pʃt], gift [ɡift], roof [ɹəf], deaf [def].

b) From the assimilation of ð [f] from ð [p]
followed by ð [f], as chaffare [tʃəfaʁ]
(OE. ceap-faru [tʃeːp-far]).

c) From OFr. ð, ph [f], as fable [fabal], face [fас], philosophre [filozɔʁə], afraid [afʁɛʁ], gref [ɡʁef], mísceef [mɪstʃef],
prophète [pʁɔfet].

Note: The disappearance of final ð [f] in
some ME. words is to be explained from the
OFR. forms in -s [s], before which the ð [f]
disappeared, as baily [bali] beside bailif
[balicant], joly [ʒɔli] beside jolyf [ʒɔlif],
densy [pɛnsi] beside densyf [pɛnsif].
ME. \( v \), u \([v]\) has the following sources:

a) From OE. \( f \) \([v]\) standing only within a syllable and represented by u, as graue \([græv]\), liues \([lɪvz]\), heuy \([hævi]\), seneing \([sænɪŋ]\), seuen \([sʊvən]\), gloue \([glʌv]\).

Note: 1. The u \([v]\) is nearly always written between vowels or between liquids and vowels; it is never initial.

2. In a few words ME. u \([v]\) was lost, as hauep \([hævəp]\) to hap \([hæp]\), haues \([hævz]\) to \([hæz]\), heued \([həvəd]\) to heed \([həd]\).

3. In the Kentish dialect of ME. \( v \) \([v]\) replaced \( f \) \([f]\) initially, as vader \([vædər]\), viue \([vɪv]\), volk \([vʊlk]\), vlesch \([vlɪʃ]\).

b) From OFr. \( v \) \([v]\), as valour \([valʊr]\), vice \([vɪs]\), vile \([vɪl]\), avenge \([əvəndʒ]\), travail \([tɾəvəl]\), diuere \([dɪvərə]\), enuye \([ənjuə]\), seruise \([sərʊɪs]\).

Note: In northern England and in Scotland \( w \) often stood for \([v]\), as wertu \([vərtu]\), trawall \([tɾəvəl]\).

\[ \theta \]

ME. \( \phi \) \([\theta]\) has the following sources:

a) From OE. \( \theta \) \([\theta]\), as pis \([pɪs]\), tre \([tɹɪs]\),
b) From OFr. final $d$ [d] a sporadic ME. $\phi$ [θ] appeared, as in $feild$ [felθ], $fei$ [fiθ], $fot$ [fot]. Cf. L. fidem [fide].

$\phi$ [θ]

ME. $\phi$ [θ] has the following sources:

a) From OE. $\phi$ [θ] which was voiced within a syllable or word before a vowel, as $ba\phi\phi$ [baθən], $bique\phi\phi$ [bikweθən], $bhe\phi$ [heθən], $bli\phi$ [blθ], $fro\phi$ [frθ].

Note: In Kentish initial $\phi$ [θ] became voiced to [ð], as $bat$ [θat], $b\phi$s [θs], $b\phi$s [θus], $bou$ [θu], $b\phi$ [θin].

$s$

ME. $s$, $ss$, $s$, $z$ [s] has the following sources:

a) From OE. $s$ [s], as $sand$ [sand], $sende$ [send], $stoon$ [ston], $lesse$ [les], $beste$ [best], $fist$ [fist].

b) In the symbol $x$ [ks], as $fax$ [faks], $sex$ [səks], $ax$ [aks].
Note: In the North OE. \( so [sk] \) initially and finally was simplified to \( s [s] \), as \( sal [sal], suld [suld], Inglis [iŋlɪs], fiss [fìs]. \)

c) From OFr. \( s [s] \), as \( saint [saint], ssuen [savan], sire [sîr], cas [kas], pas [pas], persoun [pɛrson]. \)

d) OFr. \( c [ts] \) initially and medially and OFr. \( z [ts] \) finally were simplified in AN. to \( [s] \) in the 12th Century. This \( s [s] \) is represented in ME. initially by \( c [s] \), seldom by \( s [s] \) or \( ss [s] \); before back vowels by \( s [s] \) or \( ss [s] \); finally by \( s [s] \), as \( cercle [sɛrkl], cerche [sɛrʃ] and serche [sɛrʃ], citee [site]; deesiuen [desiwen], devocioun [devɔsiun], dressen [dɾesn], solas [solas], crois [kɾɔis] and cros [kɾɔs]. \)

e) The Latin endings \(-itiae [-iːtia], -itium [-iːtium], -icium [-iːkiːum] \) produced OFr. \(-esse [-ɛs], -ece [-ɛs], -ice [-iːs], -ise [-iːz] \) (cf. below b) under \( [z] \) from which are derived the ME. correspondences \(-esse [-ɛs], -ice [-iːs], as richessee [ɾɪtʃiː], noblesse [nɔblis], vice [viːs], office [ɒfɪs], malice [mɔlis], nourrice [nɔrfris], service [ʃɛrvɪs]. \)

Note: 1. Initial Latin \( so [sk] \) became OFr.,
ME. [s], however written so [s], as science [sɪns], conscience [ˈkɒnsɪns], sceptre [sɛptər] and centre [sɛntər]. Exception: In OFr., ME. nice [nɪs] c [s] was written (L. nescius [nɛskius]).

Note: 2. The sound value [s] in OFr. z [ts] from VL. s [s] after l [l], n [n] remained in ME., as fitz [fɪts] (= son), sporadically also servantz [ˈsɜːrvənts], vestiments [ˈvestɪmənts].

3. The s [s] of ME. surgien [ˈsɜːrdʒiən], surgerie [ˈsɜːrdʒəri] comes from OFr. s [s] used for an older c [s], as surgien [ˈsɜːrdʒiən] for cirurgerie [sɪˈfɜːrdʒəri] (L. chirurgus [ˈkɪfɜːrdʒəs], chirurgie [ˈkɪfɜːrdʒiə]).

[z]

ME. s [z] has the following sources:

a) From OE. s [z] medially between vowels or between vowels and voiced consonants, as grasen [ɡrɑzən], cheese [tʃiːz], wise [wɪz], nose [nɔz], wesele [ˈwɛzəl].

Note: In Kentish, initial s [s] became voiced as zaule [zəʊl], zirke [zdʒ], zeluer [zələr], zenne [zən].
b) From OFr. s [z], as visage [vizadj], desert [dizart], musik [myzik], plaisir [plezir], raisin [rafaz], sisourea [sizura], plesse [plez], sesse [sez], close [klaz].

Note: The s [z] of ME. citeain [sitazain] from OFr. citeain [siteain] (OFr. cite [site] plus ain [ain], L. -anum [-anum]) was formed upon the analogy of ME. denesain [denazain], densein [denzein] (OFr. deinzain [deinzain] from deinz [deinz] plus ain [ain], L. de intus [de intus] plus -anum [-anum]).

c) From OFr. s [z] in -ise [-iz] formed alongside -ice [-is], as justise [dʒustiz], frauncheise [frountsiz], sacrifise [sa:kris], exercise [eksəris], coutise [kuvetis], baptise [baptiz].

[5]

ME. sch [ʃ] has the following sources:

a) From OE. sc [ʃ], a sound made slightly farther forward than the ordinary palato-alveolar fricative, as schaft [ʃaft], schade [ʃad], schaken [ʃakən], scheld [ʃeld], asche [aʃ], waschen [wəʃən], wischen [wiʃən].
Note: 1. Medially and finally [ʃ] was sometimes written ash, as flash [ʃ], flesh [ʃ], English [ʃ].

2. For change of OE. as [ʒ] to s [s] in Northern English, see note following b)
under [s], p. 82.

b) From medial OFr. as [s] derived from VL. sk [sk] before e [e], i [i] or from VL. sti [sti], skl [skl], sal [sal], appearing in ME. as sch [ʃ], as punische [puniʃ], cherische [tʃrɪʃ], rauische [rʌiʃ], languische [læŋgwɪʃ], farische [færɪʃ], uscher [ʃər], buschel [bʊʃəl].

Note: Formed upon the analogy of ME. punische [puniʃ] (OFr. punir [puniʁ]) is to be noticed ME. publische [pʊblɪʃ] (OFr. publier [publɪʁ]).

[ʒ]

ME. [ʒ] was not used as an isolated phoneme; it is found in the affricates ge, de [dʒ], and in e preceded by n [ndʒ]. The sources are as follows:

a) From OE. palatal e [dʒ] found initially and finally, and written in OE. ge [dʒ] and ng [(n)dʒ], as eggæ [ɪdʒ], hæggæ [hɛdʒ], flugæ
[flʌdʒ; ˈsɪŋkə [sɪndʒ], ˈkrɪŋkə [kɹəndʒ].
Note: ME. [ʒ] is to be considered with ME. 
g, j [dʒ]. The sound-value [ʒ] will not be 
treated as a separate phoneme in ME. of OFr. 
origin. It is to be heard as the second 
element of the phonetic digraph [dʒ], as 
*gemme [dʒem], joie [dʒo],* etc.

[tʃ]

ME. ɔh (œh) [tʃ] has the following sources:

a) From OE. ə [tʃ], as ɔhalk [tʃalk], ɔhin 
[tʃɪn], ɔhide [tʃɪd], ɔleche [lɛtʃ], ɔleche 
[fɛtʃ], ɔlɪche [bilʃ], ɔstrɪche [strɪtʃ], 
Greenwich [ˈɡriːnwiʃ].
Note: Finally in many unaccented words and 
syllables ME. [tʃ] is lost, as ɪch [ɪtʃ] beside 
i [ɪ], əuərɪch [ɪvɹɪʃ] beside every [ɛvɹɪ], 
heuenliche [həʊnliːʃ] beside heuenly 
[həʊnli].

b) From OFr. ɔh [tʃ], as ɔhaste [tʃəst], ɔhérie 
[tʃɛɹi] and ɔhirie [tʃɹi], ɔhilet [tʃɪzə], 
duchesse [dʊtʃəs], ərcher [ɑːrʃər], ɔrche 
[pɔʁʃ], əbraʊnchə [bɾaʊntʃ].
[dʒ]

ME. j, g, ge, (n)g [dʒ] has the following sources:

a) From OE. g [dʒ] used initially and finally, as migge [mɪdʒ], flekke [flɛdʒ], cukkele [kudʒal], swengen [swɛndʒən], Graunthebrigge [ɡrɐunθəbɹidʒ], rigge [rɪdʒ].
b) From OE. verbs ending in -gean [dʒæn], especially in the South, as segge [sɛdʒ], leggen [lɛdʒən], liggen [lɪdʒən], abeggen [aˌbɛdʒən].
c) From OFr. j, l [dʒ], as gender [dʒɛndər], general [dʒɛnəɹəl], joly [dʒɔli], maieseate [mædʒɪsteɪ], plekke [plɛdʒ], avengen [avɛndʒən], plungen [plʌndʒən].

Note: ME. gardin [ɡɑrdɪn] in contrast with OFr. jardin [dʒɑrdin] was influenced by Germanic *gaɾda [ɡɑrdə] or by Picardian gardin [ɡɑrdɪn].

[g]

ME. [ɡ], written in the combinations ꞈt, ɹht [ɡt],

has the following sources:

a) From OE. h₃t [ɡt], h₃p [ɡθ], as migt, micht [mɪɡt]; nigt, night [nɪɡt]; sɪt, sight [sɪɡt]; heɪzte [heiɹt], ɹeɪht [ɹeɪɡt].
Note: OE. geminatedhh [ɣ] was shortened in Southern ME. and soon changed to [j], as leyzen [lɪʃən]. Cf. d) under [j], p. 88.

[j]

ME. [j], written 3 has the following sources:

a) From OE. e [j], as yer [jet], rir [jit],
yong [jʊŋ], roupe [jʊb], raf [jaf].
b) From late OE. eo [ɛj] and written in ME.
yo, yo [jɔ], as jow, zou [ju:], York [jʌf].
c) From geminated OE. hh [ɣ] shortened and changed in Southern ME. to [j] written ʒ and ɣh, as leyzen [lɪʃən] lighen [lɪʃən].
d) From OE. ɣ, gh [ɔ] preceded by back vowels which in ME. changed to front vowels in turn changing [ɔ] to [j], if its position was final before inflectional endings, as fleʒ [fleʃ], səʃ [səʃ], bleʒ [bleʃ], hoʒə [hoʃə], nezən [nɛʃən].

Note: This [j] soon became vocalized to [i].
e) From OE. e [ɣ] which in 1100 became ɣ, as nigene [nɪʃən], stigen [stɪʃən], sizə [sɪʃə], lɪʃə [lɪʃə], flɪʃə [flɪʃə].
f) From OE. e [ɣ] which was replaced by h [x] and, which in turn, became ʒ [j] if it followed a
front vowel, as \( \text{beg} [\text{be}] \), \( \text{fle} \) [\( \text{fle} \)], \( \text{fly} \) [\( \text{fly} \)].

\[ X \]

\( \text{ME.} [X] \), written \( \text{gh} \), \( \text{z} \) has the following sources:

a) From OE. \( \text{h} \) \([X]\) after back vowels, written in
\( \text{ME.} \) \( \text{z} \), \( \text{gh} \), \([X]\), as \( \text{laugt} \) \([\text{laugt} \text{er}]\),
\( \text{slaughter} \) \([\text{slaugt} \text{er}]\), \( \text{acht} \) \([\text{axt}]\), \( \text{fougte} \)
\([\text{fouxt}]\).

b) From OE. \( \text{h} \) \([X]\), written \( \text{z} \), \( \text{gh} \), finally after
back vowels or \( \text{r} \), \( \text{r} \), as \( \text{toug} \) \([\text{touxt}]\), \( \text{sauz} \)
\([\text{sauxt}]\), \( \text{pach} \) \([\text{paxt}]\), \( \text{purz} \) \([\text{puxt}]\).

Note: In the North \( \text{gh} \), \( \text{ch} \) \([X]\) were frequently used after front vowels instead of
the regular \([\text{z}]\), as \( \text{micht} \), \( \text{micht} \) \([\text{mikxt}]\);
\( \text{right} \), \( \text{richt} \) \([\text{rixt}]\); \( \text{light} \), \( \text{licht} \) \([\text{lixt}]\).

\( \text{ME.} [\text{g}] \), written \( \text{z} \), \( \text{gh} \), has the following sources:

\( \text{ME.} [\text{g}] \), written \( \text{z} \), \( \text{gh} \), has the following sources:

a) From OE. \( \text{g} \) \([\text{g}]\), as \( \text{draz} \) \([\text{agn}]\),
\( \text{draz} \text{hen} \) \([\text{agn}]\), \( \text{sa} \) \([\text{ag}]\), \( \text{fug} \) \([\text{fug}]\),
\( \text{morgz} \text{ening} \) \([\text{morgz} \text{ning}]\), \( \text{wind} \text{ge} \) \([\text{windag}]\).

b) From OE. medial \( \text{hh} \) \([X]\) which was simplified
between vowels to \([\text{g}]\), as \( \text{coug} \text{en} \), \( \text{couch} \text{en} \)
\([\text{koug} \text{en}]\), \( \text{lau} \) \([\text{lau} \text{gon}]\), \( \text{lau} \text{we} \) \([\text{lau} \text{gon}]\).
c) With the appearance of an inflectional ending beginning with a vowel, OE. \( h \) went to \([g]\) in ME., as *rouwe* [\(\text{rou}\)], *salwe* [\(\text{sal}\)], *furwe* [\(\text{fur}\)].

\[\text{[w]}\]

ME. *wh* [\(\text{w}\)] or \([hw]\) has the following sources:

a) From OE. *hw* [\(\text{hw}\)], written *wh* [\(\text{w}\)] in ME., as *who* [\(\text{w}\)], *whos* [\(\text{w}\)], *whom* [\(\text{w}\)], *what* [\(\text{w}\)], *which* [\(\text{w}\)], *while* [\(\text{w}\)], *whyt* [\(\text{w}\)].

Note: This condition prevailed only in the Midlands and the South.

\[\text{[w]}\]

ME. *w* [\(\text{w}\)] has the following sources:

a) From OE. initial *w* [\(\text{w}\)], as *wat* [\(\text{w}\)], *was* [\(\text{w}\)], *warm* [\(\text{w}\)], *word* [\(\text{w}\)], *blank* [\(\text{w}\)], *white* [\(\text{w}\)].

b) From OE. *w* [\(\text{w}\)] medially after a consonant, as *widwe* [\(\text{w}\)], *medwe* [\(\text{w}\)], *walwen* [\(\text{w}\)], *sparwe* [\(\text{w}\)], *holwe* [\(\text{w}\)].

Note: Under conditions like those of OE. *h* [\(\text{h}\)] as seen for c) \([g]\), p. 90., a back vowel preceding final \([g]\) changed it into *w* [\(\text{w}\)], as *rouwe* [\(\text{rou}\)], *salwe* [\(\text{sal}\)], *furwe* [\(\text{fur}\)].
c) Initial \( w \) \([w]\) in Germanic loan-words became

Ofr. \( gu \) \([gw]\), later \( g \) \([g]\), but in AN. \( w \) \([w]\) was frequently kept, as likewise it remained from the Germanic in most cases in ME., as

\( wage \) \([wadʒ]\), \( walop \) \([wʌlɒp\) (= gallop), \( warde \) \([wərd]\), \( wardein \) \([wərdiŋ]\), \( rewarde \) \([rəwərd]\),
\( waraunte \) \([wəraʊnt]\), \( werre \) \([wɛr]\), \( waste \) \([wəst]\).

Note: 1. The \( w \) in ME. words with \( qu \) \([kw\) goes back to VL. \( qu \) \([kw\). In Ofr. \( c \) \([k\) was the simplified form. ME. words of Romance origin usually have \( a \) \([a\), \( e \) \([e\), \( i \) \([i\) following \( qu \) \([kw\), as \( quantitee \) \([kwɒntɪtɪ\),
\( qualitee \) \([kwɒlɪtɪ\), \( questioun \) \([kwɛstɪən\),
\( quynt \) \([kwɪnt\).

2. ME. \( w \) appears in the isolated cases of Ofr. \( c \) \([k\), \( e \) \([e\) plus \( ue \) \([u\),
\( ui \) \([ui\) becoming ME. \( au \) \([kw\), \( gu \) \([gw\) plus
\( e \) \([e\), \( i \) \([i\), as \( quere \) \([kwɛr\), \( aqueinte \)
\([akwɛnt\), \( squirel \) \([skwɪrɛl\), \( squire \) \([skwɪr\),
\( angwische \) \([æŋgwɪʃ\) or \([æŋgwɪʃ\).

\([h\) ]

ME. \( h \) \([h\) has the following sources:

a) From OE. \( h \) \([h\), as \( hare \) \([hɑː\), \( ham \) \([hæm\),
\( helm \) \([helm\), \( herte \) \([hərt\), \( hound \) \([hʌnd\),
hous [hus].

Note: Initial h [h] before l, r, n disappeared in ME.; also in unaccented particles, as (h)loud [lud], (h)ring [ring], (h)nekke [nek]; hit [hit] beside it [it].

nadde [nad] beside ne hadde [nahad].

b) From OFr. h [h] in words of Germanic origin, as hardi [hardi], harneis [harneis], haste [hast], herberge [herberge],huge [hydʒ], hautain [haутain].

Note: Now and then in words of Latin origin the h was written, but not spoken, as abit, habit [abit], ermite, hermite [ɜːmit],onest, honest [ɒnəst], oure, houre [ʊər], orrible, horrible [ˈɒrɪbl].
SUMMARY OF CHAPTER II

The Vowels

1. ME. 1 [i] from 1) OE.  
   a) 1  
   b) 2)  
   c) 3)  
   d) 4) Ofr.  
   e) 5)  
   f) 6)  
   g) 7)  
   h) 8) OE.  
   i) 9)  
   j) 10)  
   k) 11)  

2. ME. u [y] from 1) OE.  
   a) 1  
   b) 2)  
   c) 3)  
   d) 4) Ofr.  
   e) 5)  
   f) 6)  
   g) 7)  
   h) 8)  
   i) 9)  
   j) 10)  

3. ME. 1 [i] from 1) OE.  
   a) 1  
   b) 2)  
   c) 3)  
   d) 4)  
   e) 5)  
   f) 6)  
   g) 7)  
   h) 8)  
   i) 9)  
   j) 10) Ofr.  
   k) 11)  
   l) 12)  
   m) 13)  
   n) 14) Interchange of prefixes.  
   o) 15) AN.  

4. **ME. u** [Y] from 1) OE. ea [εː].
   " 2) " eo [εː].
   " 3) " Y [y].
   " 4) OFr. u [Y].
   " 5) " u [Y].
   " 6) " eu [εu].

5. **ME. e** [ø] from 1) OE. eo [ø].
   " 2) " le [lø].
   " 3) " le [lø].
   " 4) " Y [y].
   " 5) " e [e].
   " 6) " e [e].
   " 7) " Y [y].
   " 8) " le [lø].
   " 9) " le [lø].
   " 10) " le [lø].
   " 11) OFr. e [e].
   " 12) " e [e].
   " 13) " le [lø].
   " 14) " le [lø].

6. **ME. e** [ε] from 1) OE. eo [ε].
   " 2) " eo [ε].
   " 3) " le [lε].
   " 4) " Y [y].
   " 5) " e [ε].
   " 6) " e [ε].
   " 7) " e [ε].
   " 8) " eo [ε].
   " 9) " le [lε].
   " 10) " Y [y].
   " 11) " eo [ε].
   " 12) " eo [ε].
   " 13) " e [ε].
   " 14) " le [lε].
   " 15) OFr. e [ε].
   " 16) " e [ε].
   " 17) " prefixed particles.
   " 18) AN. e [ε].
   " 19) " e [ε].
   " 20) OFr. eu [uε].
   " 21) " le [lε].

7. **ME. e, ee** [εː] from 1) OE. eo [εː].
   " 2) " e [ε].
   " 3) " e [ε].
   " 4) " e [ε].
   " 5) " eo [εː].
<table>
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<tr>
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<th>ME. [a]</th>
<th>ME. [o]</th>
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<td>13</td>
<td>ME. [o]</td>
<td>ME. [o]</td>
</tr>
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</table>

|    | OE. ||\(\[1e\]\) | \(\[1\alpha\]\) |
|----|-----|-----|-----|
| 6  | \(\text{from}\) | OE. || \(\[1e\]\) | \(\[1\alpha\]\) |
| 7  | \(\text{from}\) | OE. | \(\[e\]\) | \(\[e\]\) |
| 8  | \(\text{from}\) | OE. | \(\[\alpha\]\) | \(\[\alpha\]\) |
| 9  | \(\text{from}\) | OE. | \(\[\alpha\]\) | \(\[\alpha\]\) |
| 10 | \(\text{from}\) | OE. | \(\[\alpha\]\) | \(\[\alpha\]\) |
| 11 | \(\text{from}\) | OE. | \(\[\alpha\]\) | \(\[\alpha\]\) |
| 12 | \(\text{from}\) | OE. | \(\[\alpha\]\) | \(\[\alpha\]\) |

**Notes:**

- \(\text{OE.}\) refers to Old English.
- \(\text{OFr.}\) refers to Old French.
- \(\text{Latin}\) refers to Latin.
- \(\text{AN.}\) refers to Ancient Greek.

**Transformation:**

- \(\[1e\]\) changes to \(\[1\alpha\]\) in ME.
- \(\[e\]\) changes to \(\[e\]\) in ME.
- \(\[\alpha\]\) changes to \(\[\alpha\]\) in ME.
- \(\[\alpha\]\) changes to \(\[\alpha\]\) in ME.
The Diphthongs

1. ME. ȝ [U] from 1) OE. ȝ [U].
   " 2) " ȝ [U].
   " 3) " ȝ [U].
   " 4) " ȝ [U].
   " 5) " ȝ [U].
   " 6) OFr. ȝ [U].
   " 7) " ȝ [U].
   " 8) AN. ȝ [U].

2. ME. iw [U] from 1) OE. iw [U].
   " 2) " iw [U].
   " 3) " eu [u].
   " 4) " eu [u].
   " 5) " eu [u].
   " 6) " eu [u].
   " 7) " eu [u].
   " 8) OFr. eu [U].
   " 9) " eu [U].
   " 10) AN. eu [U].

3. ME. eu, ew [eU] from 1) OE. eu [eU].
   " 2) " ew [eU].
   " 3) " eu [eU].
   " 4) " eu [eU].
   " 5) OFr. eu [eU].
   " 6) " eu [eU].
   " 7) AN. eu [eU].
   " 8) OFr. eu [eU].
   " 9) AN. eu [eU].
   " 10) " eu [eU].
   " 11) OFr. eu [eU].
5. ME. eu, ew [ɛːU] from 
1) OE. ɛ [ɛ]:
2) " ɛ [ɛ]:
3) " e [ɛ]:
4) " ɛ [ɛ]:
5) OFr. eau [ɛau]:

6. ME. ai [aɪ] from 
1) OE. ι [ɪ]
2) OFr. ai [aɪ]
3) " ai [aɪ]
4) AN. ai [aɪ]

7. ME. au [ɔu] from 
1) OE. ɔ [ɔ]:
2) " ɔ [ɔ]:
3) " ɔ [ɔ]
4) " ɔ [ɔ]
5) OFr. au [ɔu]:

8. ME. oɪ [ɔɪ] from 
1) OFr. oɪ [ɔɪ]:
2) " oɪ [ɔɪ]:
3) " oɪ [ɔɪ]
4) " oɪ [ɔɪ]
5) AN. oɪ [ɔɪ]:

9. ME. ou, ow [ɔːU] from 
1) OE. ɔ [ɔ]
2) " ɔ [ɔ]
3) " ɔ [ɔ]

10. ME. ou, ow [ɔːU] from 
1) OE. o [o]
2) " o [o]

11. ME. ui [UI] from 
1) OFr. uɪ [uɪ]:
2) " uɪ [uɪ]:

The Consonants

1. ME. p [p] from 
1) OE. p [p]:
2) Assimilations
3) OFr. p [p]:
4) " p [b]:

2. ME. b [b] from 
1) OE. b [b]:
2) Assimilations
3) OFr. b [b]:
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<td>3. <strong>ME. t [t]</strong> from</td>
<td>1) OE. t [t].</td>
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<td>2) Assimilations</td>
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<td>3) Assimilations</td>
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<td>6) Assimilations</td>
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<td>7) OFr. t [t].</td>
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<td>4. <strong>ME. d [d]</strong> from</td>
<td>1) OE. d [d].</td>
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<td>2) Assimilations</td>
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<td>3) OE. d [d].</td>
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<td></td>
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<td>4) Assimilations</td>
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<tr>
<td>5. <strong>ME. k, g [k]</strong></td>
<td>1) OE. g [k].</td>
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<td></td>
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<td>2) Assimilations</td>
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<td>3) ON. Loan-words</td>
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<td></td>
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<td>4) OE. g [k].</td>
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<td>5) Assimilations</td>
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<td>7) Assimilations</td>
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<td>10) Assimilations</td>
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<td>11) VL. qu [kw].</td>
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<td>6. <strong>ME. g [g]</strong> from</td>
<td>1) OE. g [g].</td>
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<td>2) Assimilations</td>
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<td>3) Assimilations</td>
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<td></td>
<td>4) Assimilations</td>
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<td>7. <strong>ME. m [m]</strong> from</td>
<td>1) OE. m [m].</td>
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<td>2) Assimilations</td>
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<td></td>
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<td>3) OFr. m [m].</td>
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<td>4) Assimilations</td>
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<td>8. <strong>ME. n [n]</strong> from</td>
<td>1) OE. n [n].</td>
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<td>2) Assimilations</td>
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<td>3) Assimilations</td>
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<td>4) Assimilations</td>
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<tr>
<td>9. <strong>ME. [ŋ], n before k, k</strong></td>
<td>1) OE. ng [ŋ], nk, ng [ŋ].</td>
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<td>2) Assimilations</td>
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<td>3) Assimilations</td>
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<td></td>
<td>ME.</td>
<td>from</td>
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<td>[l]</td>
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<td>11.</td>
<td>r</td>
<td>[f]</td>
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<td>12.</td>
<td>f</td>
<td>[f]</td>
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<td>13.</td>
<td>u, v</td>
<td>[v]</td>
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<td>14.</td>
<td>p</td>
<td>[θ]</td>
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<td>15.</td>
<td>p</td>
<td>[δ]</td>
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<td>16.</td>
<td>e, s, se</td>
<td>[s]</td>
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<td>17.</td>
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<td>[z]</td>
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<td>18.</td>
<td>och</td>
<td>[ʃ]</td>
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<td>19.</td>
<td>[ʒ]</td>
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<td>20.</td>
<td>oh, oeh</td>
<td>[tʃ]</td>
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<td>21.</td>
<td>g, ge, 1</td>
<td>[dʒ]</td>
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<td>22.</td>
<td>h</td>
<td>[ŋ]</td>
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<td></td>
<td>ME.</td>
<td>th, gh</td>
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<td>23</td>
<td>th, gh</td>
<td>[g]</td>
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<td>24</td>
<td>th, gh</td>
<td>[g]</td>
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<td>25</td>
<td>th, gh</td>
<td>[g]</td>
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<td>26</td>
<td>th, gh</td>
<td>[g]</td>
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<td>27</td>
<td>th, gh</td>
<td>[g]</td>
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<td>28</td>
<td>th, gh</td>
<td>[g]</td>
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</table>
CHAPTER III

THE PHONEMIC SYSTEM

of

NEW ENGLISH

A. The Vowels

[1]

ME. [1] has the following written forms and sources:

a) ee [i], appearing as early as the 16th Century, from ME. ə [e], in Germanic words and in some Romance words by analogy.

Medially and finally, as keep [kip], sleek [slit], week [wik], sweep [swip], meet [mit], steel [stil], reel [ril], deem

greed [grid], teeth [tiθ], beech [bitʃ],

1. The references regarding sound-values are Jespersen, Wright, Kaluza, and Luick unless otherwise noted.

2. In this chapter the word Romance appears frequently. It is used in reference to words of Latin origin directly as well as to words from the so-called Romance languages, French, Spanish, Italian, etc.
[dim], green [grin], beer [bɪə(r)-pɪr],
keen [kɪn], sneer [sniə(r)-sɪə], bee [bi],
knee [ni], fee [fɪ], see [si], flee [fli],
three [θri], trustee [trʌsti], refugee
[refjʊdʒi], jubilee [ʤuˈbɛli], referee
[refəri], grantee [grænti], guarantee
[ɡərənti], grandee [ɡrændi].

b) **ie** [ɪ], appearing as early as the 16th Century
from ME. e [e], in Germanic and Romance words
medially, as thief [θɪf], fief [fɪf], belief
[bɪˈlɪf], brief [brɪf], believe [bɪˈlɪv], grieve
[ɡrɪv], piece [piː], niece [nɪs], frieze
[frɪz], seize [sɪdʒ], tier [tɪə(r)-tɪr], bier
[bɪə(r)- bɪr], field [fɪld], yield [wɪld], fiend
[fɪnd], shriek [ʃrɪk], priest [prɪst], riem
[riːm], mien [mɪn].

c) **e** [e], appearing as early as the 16th Century,
from ME. e [e].

1. Finally in pronouns, as we [wɪ], she [ʃi],
ye [jɪ], he [hi], me [mɪ].

2. Finally in the auxiliary verb be [bɪ] and
in the strongly stressed form of the article
the [ði], (unstressed [ðə] before a consonant,
[ðɪ] before a vowel); also in albeit [ælbiːt].

3. Finally and unstressed in some Greek words,
as ἡλιος [naiˈoʊbɪs], ἀποστροφή [əˈpɔstrɔfi],
catastrophe [kætəstrəfi], also in facsimile [fæksɪməli], simile [sɪməli], sesame [səsəmi].

Note: These words are also properly pronounced with [ə] as the final sound.

4. Before a consonant followed by -e, which lengthens the preceding stressed -e, in both Germanic and Romance words, as mete [mit], eke [ɪk], Swede [swɪd], eve [ɪv], these [ðɪz], even [ɪvən], evening [ɪvənɪŋ], plebe [plɪb], grebe [ɡriːb]; here [hɪə(r)-hɪr], sphere [sfiə(r)-sfɪə], complete [kəmplɪt], cede [sɪd], scheme [skɪm], scene [sɪn], serene [sərɪn], demesne [dæmɪn], extreme [ɪkstrɪm], supreme [səprɪm], velocipede [vələsɪpid].

5. In penultimate and antepenultimate accented open syllables in some words of Greek and Romance origin, as ideal [aɪdɪəl], theatre [θɪətə(r)], deism [dɪəzəm], Lyceum [laɪsɪəm], museum [mjʊziəm], edict [ɪdɪkt], legal [lɪgəl], medieval [mɛdɪəvl], lever [lɪvə(r)], thesis [θɪzɪs], Venetian [vænɪʃən], facetious [fæsəʃəs], specious [spɪʃəs], regent [rɪdʒənt], female [fɪməl], demon [dɪmən], arena [ərənə], realize [rɪəlaɪz], scenery [sənərɪ].
d) **ee** [i] ultimately derived from ME. **e** [ɛ:], in words of Germanic and Romance origin. This ME. **e** [ɛ:] remained unchanged in the 16th Century, but had begun to be written **ea** [ɛ:]. In the 17th Century, however, **ea** [ɛ:], in most cases, had become [e] and **circa** 1700 had changed to [i], which fell together with the 16th Century **ee**, **ie** [i], these two being derived from ME. **e** [ɛ].

1. Finally and medially, as **pca** [pl], **peacock** [ pikɔk ], **tea** [ti], **sea** [si], **plea** [pli], **flee** [fli], **lea** [li], **leap** [lip], **eat** [it], **heap** [hip], **freek** [frık], **lead** [lid], **read** [rid], **leaf** [lift], **wreathe** [rıθ], **leash** [lif'], **each** [its], **dean** [din], **stream** [strim], **steal** [stil], **fear** [fi(r)-fır], **near** [ni(r)-nır].
   Cf. **ea** [ɛ], under b) 1. p. 120.

2. Before -et, as **east** [ist], **beast** [bist], **feast** [fist], **yeast** [jist], **least** [list], **Easter** [ists(r)]. Cf. **ea** [ɛ], under b) 2. p. 121

3. Before -gue, -ve, -the, -ce, -se [s, z] the final **e** influencing the preceding **ea** [i], as **league** [lig], **weave** [wiv], **leave** [liv], **breathe** [brıθ], **peace** [pis], **cease** [sıs], **lease** [lis], **ease** [iz], **please** [pliz].
5. In originally pretonic syllables of Romance words, as deacon [dikən], season [sizən], reason [rɪzn], feature [fɪtrə(r)], creature [kraitə(r)], treaty [trɪtɪ], entreaty [ɛntrɪtɪ].

e) ei [ɛi] from ME. ei [ɛɪ] and from OFr. ei [ɛi] through ME. as ei [ɛi].

In stressed syllables as conceit [kənsɪt], receipt [rɪsɪt], deceive [dɪsɪv], seize [sɪz], inveigle [ɪnˈvɪgəl], ceiling [ˈsiːlɪŋ], seizure [ˈsɪz(ə)r], leisure [ˈlɪzər] and leʒə(r), either [ˈeɪðə(r)], neither [ˈniːθə(r)] also [eɪθə(r)], [naɪθə(r)]; also weir [wiə(r)ˈwɪr], eirie [ɪəˈriə].

f) ey [i], from ME. ei, ey [ɛɪ], ultimately from OE. æɡ [æːj].

Infrequently used, as key [ki]; more rarely still, as lew [li] beside lea [li].

g) eo [i], from ME. e, ue, oe, eo [ɛ] ultimately from L. o [o], though OFr. ue [ɥ].

In people [ˈpiːpl], a single instance.

h) ae [i], from ME. ae [ɛ], ultimately from Gr. ai [ai] to L. ae [æi] or [ae], as in Aegeus [ɪdʒɪs], aegis [ɪdʒɪs], Aeolian [iʊlɪən], Caesar [sɪzə(r)], mediaeval, medieval [ˈmɛdiəvəl], Athenaeum [æθəˈniəm], encyclopaedia [ɛnˈsaɪkloʊpɪdɪə].
1) (u)ay [i], from OFr. ai [ai], through ME. ai, ay [a]. In quay [ki], a single instance.

J) oi [i], from OFr. oi [ɔi], ui [Ui], through ME. oi [ɔi], ui [Ui].

In turquoise [tɜː(r)kɪz] beside [tɜː(r)kɪz].

k) i [i], from many modern French and Italian loan-words, as suite [swit], picue [pik], antique [æntɪk], fatigue [fætɪdʒ], intrigue [ɪntrɪɡ], naive [næɪv], police [pɒlɪs], valise [vəlɪs], prestige [prɛstɪs], machine [məˈʃɪn], marine [ˈmərɪn], routine [ˈrʊtɪn]; signorina [sɪŋɡoˈrɪnə], concertina [kɒnˈkɜːtɪna], casino [ˈkæsɪno], merino [məˈrɪno].

1) eau [i] is heard in Beauchamp [biˈʃæmp].

m) aiu [i] is heard in Caius [kɪz] (College); Br.

n) y [i] is heard in the rarely used words yclept [ɪkˈlɛpt], yclad [ɪklæd]. The [i] sound is also heard in these words.

o) oe [i], as Phoebe [ˈfɔbi], antoeci [æntoʊˈsi].

NE. [i] has the following written forms and sources:

a) ɪ [i], from ME. ɪ [i].
1. In one-syllable words before all final spoken consonants and consonant clusters except r, as ship [ʃip], script [skrɪpt], sit [sɪt], thick [θɪk], sixth [sɪksθ], rib [rɪb], mid [mɪd], big [bɪɡ], stiff [stɪf], smith [smɪθ], kiss [kɪs], rich [rɪtʃ], hill [hɪl], film [fɪlm], limb [lɪm], wind [wɪnd], since [sɪndʒ], zinc [zɪŋk], bring [brɪŋ]; give [ɡɪv], live [lɪv], lives [lɪvz], niche [nɪtʃ]. Exceptions: hive [haɪv], rive [raɪv]; here the [aɪ] derives from ME.[i].

2. In two-syllable words of Germanic origin before single consonants or consonant combinations and their derivative-syllables -le, -er, -en, -y, -ew, -ow, as thistle [θɪsl], liver [lɪvə(r)], listen [lɪsən], lily [lɪlɪ], dingy [dɪndʒɪ], sinew [sɪnju], widow [wɪdəʊ].

3. In words of Germanic and Romance origin before all doubled written consonants, as skipper [skɪpə(r)], little [lɪtl], fickle [fɪkal], nibble [nɪbl], riddle [rɪdəl], niggard [nɪgə(r)d], scissors [sɪzə(r)z], dizzy [dɪzi], issue [ɪʃu] and [ɪʃu], miller [mɪlə(r)], villa [vɪlə], stirrup [stɪrəp], glimmer [ɡlɪmə(r)], dinner [dɪnə(r)].
4. In original pretonic syllables of Romance words as well as before simple written consonants, as 

*city* [sɪtɪ],
*pity* [pɪtɪ],
*victuals* [vɪktʊlz],
*ribald* [rɪbɔːld],
*sibyl* [sɪbʊl],
*brigand* [brɪɡænd],
*vivid* [vɪvɪd],
*critic* [kɹɪtɪk],
*prison* [prɪsən],
*river* [rɪvə(r)],
*visage* [vɪzɪdʒ],
*limit* [ˈlɪmɪt];
also before clustered consonants, as 

*tipsy* [tɪpsɪ],
*scripture* [ˈskrɪptʃə(r)],
*triple* [trɪpɔːl],
*fiction* [fɪkʃən],
*mixture* [ˈmɪkstʃə(r)],
*signal* [ˈsɪɡnɔːl],
*mistress* [ˈmɪstrɛs],
*chimney* [ˈtʃɪmnɪ],
*linguistic* [ˈlɪŋgwɪstɪk],
*fidget* [ˈfɪdʒɪt],
*avarice* [ˈævərɪs].

5. In accented antepenultimate syllables of Greek or Romance words before single or clustered consonants, as 

*Idiot* [ɪˈdɪət],
*hideous* [hɪˈdɪəs],
*trivial* [ˈtrɪvɪəl],
*lascivious* [ˈlæsviəs],
*Illiad* [ɪˈlɪəd],
*lineal* [ˈlɪnɪəl],
*antipathy* [ˌɑntɪˈpæθi],
*prohibitive* [ˌprɒhɪˈbɪtɪv],
*vigorous* [ˈvɪgərəs];
*brilliant* [ˈbrɪljənt],
*admissible* [ədˈmɪsəbəl],
*pillory* [ˈpɪlərɪ],
*victory* [vɪkˈtərɪ],
*antiquity* [ˌæntɪˈkwətɪ],
*signify* [ˈsɪgnɪfaɪ],
*ignorant* [ˈɪɡnərənt],
*history* [ˈhɪstərɪ].

6. Unstressed before 

*ve, t, te, c, d, ff, se, ce* [s],
*l, n, ne, as active* [ˈæktɪv],
*habit* [ˈhæbɪt].
opposite [pəpəzit], public [ˈpʌblɪk], solid [ˈsɒlɪd], sheriff [ˈʃerɪf], promise [ˈprɒmɪs], practice [ˈpræktɪs], pupil [ˈpjuːpəl], April [ˈeɪprɪl], cabin [ˈkæbɪn], medicine [ˈmedɪsɪn], genuine [ˈdʒuːnɪdʒ]. The [ə] is also used in these words in the unstressed syllables.

7. Unstressed before ed, as carried [ˈkærɪd], sallied [ˈsɔlɪd], married [ˈmærɪd], tarried [ˈtærɪd].

8. Unstressed in prefixes, as inform [ɪnˈfɔː(r)m], divide [dɪˈvaɪd], dismay [dɪˈmeɪ], infer [ɪnˈfɜː(r)], discover [dɪˈskʌvə(r)], dispute [dɪˈspʌjt].

b) Y [ɪ] in Greek loan-words and others.

1. In penultimate or antepenultimate syllables, as cynic [ˈsɪnɪk], lyric [ˈlɜːrɪk], crystal [ˈkrɪstəl], system [ˈsɪstəm], mystic [ˈmɪstɪk], symbol [ˈsɪməbəl]; myriad [ˈmɪrɪəd], typical [ˈtɪpɪkəl], hypocrit [ˈhɪpəkrɪt], physical [ˈfɪzɪkəl], lyrical [ˈlɜːrɪkəl], pyramid [priˈramɪd], synonym [saɪnənəm], syllable [ˈsɪlabəl], tyranny [ˈtaːrən].

2. Before final consonants and consonant clusters, crypt [kriˈpɔːt], pyx [ˈpɪks], glyph [ɡlɪf], myth [mɪθ], abyss [ˈæbɪs], cyst [ˈsɪst], lynx [ˈlɪŋks], lymph [ˈlɪmф] and [ˈlɪmpf], hymn [ˈhɪm], sylph
1. Stressed, as England [ɪŋɡlənd], English
   [ˈɪŋɡlɪʃ], pretty [ˈprɪti].

2. Unstressed in the endings of many words, as
   hatred [ˈheɪtrɪd], wicked [ˈwɪkɪd], beloved
   [ˈbeləvd], divided [ˈdɪvɪdɪd], ended [ˈɛndɪd],
   decided [ˈdɪsɪdɪd], houses [ˈhaʊzɪz], classes
   [ˈklɑːsɪz], bridges [ˈbrɪdʒɪz], catches [ˈkætʃɪz],
   loveth [ˈlʌvɪθ], cometh [ˈkɒmɪθ], youngest
[11

longest [ləŋgɪst], eldest [eldɪst],
woman [ˈwʊmən], linen [ˈlɪnɪn], pocket [ˈpɒkɪt],
secret [ˈsɛkrɪt], business [ˈbɪznɪs], forest
[fɔːrst], college [ˈkɒlədʒ], cruel [ˈkrjuːl],
sullen [ˈsʌlən], poem [poʊm].

Note: The words in the above examples may be
pronounced with [ə] in the unstressed syllables.

3. Unstressed in medial syllables, as telephone
[ˈtelfəʊn], elephant [ˈɪlfənt], elemental
[ɪˈmɛntl], appetite [əˈpɜːtɪt], remedy [rəˈmɛdi].

4. Unstressed in prefixed syllables of Germanic
and Romance words, as become [bɪkəm], begin
[ˈbɪgin], because [ˈbɪkɔz], delight [dɪˈlaɪt],
expect [ɪˈkspɛkt], prepare [priˈpɛə(r)], receive
[riˈaɪv], remember [rɪˈmembə(r)], select [səˈlekt];
also in the article: the [ði] before vowels.

e) ee [iː], stressed, as in Greenwich [ˈgrɪnmɪdʒ] and
[grɪnmɪtʃ], been [bən] and [bɛn], threepence
[θrɪpəns(t)], breeches [briʃiz]; posttonically,
as committee [ˈkəmɪtɪ], coffee [ˈkɒfi], toffee
[ˈtɒfi], levee [ˈlɪvi].

f) u [ʌ] stressed in busy [ˈbɪzi] (OE. bysɪp [ˈbɪzɪp]),
business [ˈbɪznɪs]. Unstressed in minute [ˈmɪnɪt]
(noun), lettuce [ˈlɪtɪs]; [ə] may also be used
here.
g) əʊ [i] stressed in build [bild], build [bɪld],
guilt [gɪlt]. Unstressed in biscuit [bɪskɪt],
conduit [kəndɪt]; [ə] may also be used here.

h) ə [ɪ] unstressed in final syllables, as climate
[klaɪmɪt], palate [pælɪt], palace [pæləs],
terrace [təris], tonnage [tɒnɪdʒ], cottage
[kətɪdʒ], adage [ædɪdʒ], orange [ɒrɪndʒ];
[ə] may also be used here.

i) ə as unstressed as marriage [mərɪdʒ], carriage
[kærɪdʒ], parliament [pə(r)lɪmənt]; [ə] may
also be used here.

j) əɪ [ɪ] unstressed before n, as captain [kæptɪn],
fountain [faʊntɪn], mountain [maʊntɪn],
chamberlain [tʃeɪmbrəlɪn], murrain [mərɪn],
certain [sə(r)tɪn]; [ə] may also be used here.

k) ay [aɪ] unstressed in Sunday [ˈsʌndi], Monday
[ˈmʌndi], Friday [ˈfraɪdi], etc.; yesterday
[ˈjestə(r)di]; in some proper nouns, as Murray
[ˈmʌri].

l) ə [ɪ] unstressed as in money [ˈmʌni], monkey
[ˈmʌŋki], donkey [dɔŋki], whiskey [ˈwɪski],
valley [ˈvæli], abbey [ˈæbɪ], doney [ˈdʌni],
Sidney [ˈsaɪdni].

m) əɛ [i] stressed as in Weirton [ˈwɪə(r)tan],
Teignmouth [ˈtɪnməθ]; unstressed as in foreign
[fərin] and [fəran] sovereign [səvərin] and
[səvəran], mullein [məlin] and [məlan],
Blenheim [blənim] and [blənəm].

n) o [i] in women [wimən] and [wimən], a single
instance (OE. wif-menn [wifmen]).

o) eo [i] in Theobald [θəbald] (cf. Tybalt [θəbalt]);
unstressed in pigeon [pidʒən] and [pidʒən],
wigeon [widʒən] and [widʒən].

p) oa [i] rarely, as in waistcoat [wəskət] and
[wəskət].

q) ea [i] unstressed as in guinea [gəni], forehead
[fərid] and [fəred].

r) oi [i] as in tortoise [tɔ(r)təs] and [tɔ(r)təs].

[e-ei]

NE. diphthongal phoneme [ei], the [e] with [i] off-glide
producing the effect of a diphthong, will be variously
transcribed as [e] or [ei], depending upon the degree
of stress requisite in the syllable which contains it.
In the absence of context the phoneme will be referred
to as [ei]. NE. [ei] has the following written forms
and sources:

a) a [ei] comes from ME. a [a] in words of Germanic
and Romance origin and at the beginning of the
NE. period had not changed in value; however,
toward the end of the 16th Century a [a] went
to a [ə] and [ɛə:]. During the 18th Century this a [ə] and [ɛə:] went to a [e] which further changed in the 19th Century to a [e] mostly of diphthongal value.

1. Before a consonant, except r followed by

-e, -es, -ed, -en, -le, -el, -re, -er, -r-
-ish, and their derivatives, as make [meik],
ache [eik], plague [pleig], behave [bihev],
but have [hav]; graces [gresiz], maces
[meisiz], hated [heitid], naked [nekid]
(these words are also pronounced with [ə]);
laden [leidn], taken [teikan], staple [steipəl],
maple [meipəl]; label [leibl], navel [neival];
acre [eikə(r)], sabre [seibrə(r)]; wafer
[weifə(r)], baker [beikə(r)]; baby [beiβi], lazy
[leiζi]; Danish [deinj], Latish [leitʃ],
slavish [sleivʃ].

2. In Romance words in open syllables, as papal
[peipəl], fatal [feitol], bacon [beikan], labor
[leibə(r)], naval [neival], nation [neison],
nasal [neizəl], patron [peitrən], pagan [peigan].

3. Before -mb, -nc1 followed by a vowel and before
-nge, as chamber [tʃeimbə(r)], cambric [keimbrik],
Cambridge [keimbridʒ], ancient [eintʃant]; strange
[streindʒ], angel [eindʒəl], danger [deindʒə(r)],
mangy [meindʒ].
Note: The NE. phoneme a [eɪ] from OFr. au [œɥ] needs special mention. From OFr. au [œɥ] before Ё, й are babe [beɪb], baby [beɪbi] (OFr. baube [baube]; L. balbus sauver [sɔvɛ], charc [tsɔf] (Fr. chauffer [ʃɔf]); before mb are chamber [tʃəmbr(ɹ)], [ʃɔf]); before mb are chamber [tʃəmbr(ɹ)], flame [flæm]; before noi followed by a vowel is ancient; before nge are grange [ɡreɪndʒ], range [reɪndʒ]. Cf. 3. p. 114.

4. Before -st followed by -e, as paste [pɛst], taste [tɛst], haste [heɪst], chaste [tʃeɪst]; also hasty [heɪsti], pastry [pɛstri]; and base [beɪs], halfpenny [heɪmpə].

5. Posttonically in verbs with final -e, as advocate [ədvəkæt], operate [ɒpəreɪt], elevate [əlevɪt], supinate [səpɪneɪt], suppurate [səpəreɪt], antedate [antɪdeɪt]; also in female [fɛməl].

6. Following u [w] in such words as assuage [əsəwɪdʒ], assuasive [əswəˈsɪv], persuade [pə(r)sweɪd], etc.

b) ai [eɪ] comes from ME. ai, ay [aɪ]. The 16th Century kept the [aɪ], but it thereafter went through [ɛɪ] to [eɪ] which fell together at this time with the [eɪ] from ME. a [a] (cf. a) under
[e—e1], p. 113). In the 18th Century they went to [e] and in the 19th Century to [e1], of diphthongal value.

1. Medially, except before r as strait [streit], straight [streit], waif [wei], faith [feiθ], gait [gai], sail [sei], claim [kleim], lain [lein], plain [plein], arraign [arein], paint [peint], saint [seint], waist [west], and derivatives; also in retail [riteil], hobnail [hæbneil].

2. Before a consonant with final e as waive [weiv], raise [rei], baize [beiz], maize [meiz], plaice [pleis], cockaigne [kapkein].

c) ay [ei], with source as of b) p. 115.
As in way [wei], day [dei], pay [pei], say [sei], lay [lei], gay [gei], decay [dikei], delay [dlei], astrey [astrei], ay [ei] (aye [ai]), also in their derivatives, and in the French word crayon [kreon].

d) ei [ei] in NE. has a history like NE. ai [ei], except that ei [ei] comes from ME. ei [ei].
1) Before silent gh, as weigh [wei], inveigh [invei], sleigh [slei], neigh [nei], neighbor [neibær], eight [eit], eighth [eitθ], weight [weit], freight [freit].
2. Before silent £ followed by n, in such French words as deign [de-in], reign [re-in], feign [fe-in].

3. Before l, n, nt, as veil [veil], vein [vein], rein [rein], reindeer [reindar], skein obeisance [obeisonts], sheikh [sheik] and also obeisance [obeisonts], sheikh [sheik] and

\[\text{f) ea} \ [\text{e}]\] with source as of d) p. 116.

As in they [thei], grey [grei], they [they], convey [kayvəi], survey [səvəi] and [səvəi], obey [obei], prey [prei], hey [hei], bey [bei], heyday [heidei], and in their derivatives.

\[\text{g) aa} \ [\text{e}]\] only rarely, as Aaron [əron] and [əron], graal [greil] beside grail [greil].

\[\text{h) ao} \ [\text{e}]\] rarely, as gaol [dʒeil], gaoler [dʒeila(r)]

\[\text{i) au} \ [\text{e}]\] rarely, as gauge [geidʒ].
j) e [e:] in French and Italian loan-words usually, as bouquet [bokej] and boris, sobriquet [soбрикеj], pique [pikej], rique [rikеj], lame [lamej] and lamе, beret [baret], Chevrolet [шевроле], auto-da-fe [atодафэ], eh [эй].

k) ee [эй] in French loan-words, as puree [пюре], matinee [матине], negligee [нэгвели], toupee [тюпе], souflee [сулфле].

\[\text{[e]}\]

ME. [e] has the following forms and sources:

a) e [e] has remained unchanged from ME. e [e].

1. Before voiced and voiceless plosive consonants, as bed [бед], egg [ег], beg [бег], web [web], set [сет], let [лэт], debt [дет], neck [нек], check [тэчк], step [степ], slept [слеpt], went [вент], next [нект], trek [трук].

2. Before sibilants and fricatives, as yea [йэ], fez [фэз], less [лес], gues [гэс], best [бест], flesh [флэш], wretch [ретч], edge [эдж], hedge [хидж], olef [олиф], oleft [олеft], left [лэфт], theft [тэфт], bereft [берет].
3. Before l, m, n, as hotel [hotel], dispel [dispel], tell [tell], gazelle [gazelle], melt [melt], helm [helm], phlegm [phlegm], condemn [condemn], men [men], sent [sent], end [end], revenge [revend].

4. Before y, and consonant clusters, except r followed by a consonant, in polysyllabic words, as bevel [bevel], devilry [devilry], clever [kləvə(r)] (but fever [fivə(r)], lever [livə(r)]), tether [tɛθə(r)], freshen [frəʃən], yesterday [jɛstə(r)dɪ], wrestle [risəl], sceptic [skɛptɪk], medley [medli], rescue [rɪskju], respite [rɛspɪt], metric [ˈmɛtrɪk].

5. Before l, m, n followed by a consonant, as welter [wɛltə(r)], elfish [ɛlfʃɪ], eldest [ɛldəst], empty [ɛmptɪ], temple [tempəl], tremble [trɛmbəl], gentle [dʒentəl], gender [dʒɛndə(r)], lengthen [lɛŋ(k)θən]; and in compounds, as welcome [ˈwelkəm], twenty [ˈtwenti], Wednesday [ˈwɛnzdɪ].

6. Before all doubled written consonants, as settle [sɛtɪ], pepper [ˈpɛpə(r)], freckle [fʁɛkəl], pebble [ˈpɛbəl], redden [ˈrɛdən], beggar [ˈbɪɡə(r)], message [ˈmɪsɪdʒ], coalesce [ˈkoʊəls], umbrella [ˈʌmbrelə], merry
[mərɪ], dilemma [dɪˈlemə], tennis [ˈtenɪs].

7. In originally pretonic syllables of Romance words before simple written consonants, as epic [ˈɛpɪk], metal [ˈmɛtəl], poetic [pəˈtɪk], rebel [ˈreɪbəl], edit [ɪˈdɪt], zephyr [ˈzɛfə(r)], herald [ˈhɜːrəld], desert [ˈdezə(r)t], lemon [ˈlemən], menace [ˈmenəs], discretion [dɪˈskrɛʃən], special [ˈspɛʃəl], relic [rəˈlɪk].

8. Before simple or clustered consonants in antepenultimate syllables of words of Romance origin, as preterite [prəˈtɜrɪt], reference [rɪˈfɜrənt(ə)s], legible [ˈlɛdʒəbal], relative [rɪˈlætɪv], delicate [dɛˈlɪkət], heroine [ˈhɪərən], necessity [nɪˈsɑsɪti], solemnity [səˈləmnəti], tendency [tɛndənsi], sensitive [sɛnsətɪv].

[œ] may also be used in the unstressed syllables of these words.

9. From ME. ə [ə] before re, 'er, as ere [ɛə(r)], there [ðəə(r)], where [wɛə(r)], were [wer]; e'er [ə(r)], ne'er [nɛə(r)]; also in some loan-words, as parterre [pə(r)ˈtɛə(r)], derriere [dəˈrɪeə(r)], arriere [ɔrˈrɪeə(r)]; bolero [ˈboʊləro].

b) əa [ɛ] is derived from ME. ə [ə], which went to [ɛ] as early as the 16th Century. Cf. ea [i] under d. p. 104, and ea [ei] under f. p. 117.

1. Before d, th, lth, lm, f, v, as dead [dɛd],
head [hɛd], breadth [breθ], breath [brɛθ],
heather [hɛθə(r)] (cf. heath [hiθ]), health
[heθ(t)θ], realm [rɛlm], deaf [dɛf], heavy
[hevi], leaven [lɛvən], and derivatives.

2. Rarely before p, t, st, as weapon [wəpən],
threat [θrɛt], threaten [θrɛtən], [θrɛtn],
sweat [swet], sweater [swetə(r)], breast
[brest].

3. In originally pretonic syllables of some
Romance words, as peasant [pɛzənt], pheasant
[fɛzənt], pleasant [plɛzənt], pleasure
[pliζə(r)], measure [miζə(r)], jealous
[dʒɛəls], zealous [zɛəls], zealot [ζɛəlt],
treachery [trɪθər].

4. In some preterites, as read [rɛd], lead
[lɛd], leapt [lɛpt], dealt [dɛlt], dreamt
[drem(p)ət], meant [mɛnt].

5) In some derivatives, compounds, and proper
nouns, as cleanse [kliŋz], cleanly [kliŋli],
seamstress [sɛm(p)strəs]; breakfast [brikfast],
steadfast [stidfət]; Leamington [leməntən].

6. Before r in pear [pɛə(r)], tear [tɛə(r)], bear
[bɛə(r)], wear [wɛə(r)], swear [swɛə(r)],
forbearance [fɔ(r)bɛərəns(t)s].

Note: [ɛ] may also be used in these words;
both [ə] and [æ] can also be used without the (ə) glide, as tear [tə-r-tər], principally when r is a link.

c) ai [ei] by reduction of ME. ai [ai].

1. Examples are said [sed], saith [seθ] and [seθ], again [əgin] and [əgein], against [əginst] and [əgeinst], waistcoat [waɪskət] or [wəskət].

2. From ME. ai [ai] and found before r, ry, rie in final syllables, as air [aə(r)], fair [fə(r)], despair [dəspə(r)], hair [hə(r)], airy [əəri], fairy [fəəri], prairie [prəəri]; also in millionaire [mjələnə(r)]; also in Scottish laird [lə(r)d], bairn [bə(r)n], caim [kə(r)n], laim [tə(r)n].

Note: [ə] is also used in these words, except prairie. The (ə) glide may be elided.

d) aw [ə] by reduction of ME. ai [ai].

1. A single instance, says [sez].

2. From ME. ai [ai] before final r, er, or, as Ayr [ə(r)], prayer [prə(r)], mayor [mə(r)].

Note: [ə] is also used here, except, perhaps, in mayor.

e) ei [e] by reduction of ME. ei [e] .
1. As *heifer* [hiˈfɜː(r)], *leisure* [ˈlaɪʒə(r)] and
   *Leicester* [ˈliːstə(r)]; and in the
   French words *nonpareil* [nɔnˈpɛʁɛl], *beige*
   [ˈbɛʒ].

2. From ME. *ei* [eɪ] before *r*, as *their* [ˈðɛə(r)],
   *theirs* [ˈðɪə(r)s], *heir* [ˈhɪə(r)], *heirloom*
   [ˈhɪə(r)lʊm], *heiress* [ˈhɪərəs].

   Note: [*e*] is also commonly used in these words.

f) *ie* [i] through reduction of ME. *e* [e] and NE.

i [i]. Rare, as *friend* [frend], *friendship*
   [ˈfrɛndʃɪp].

j) *eo* [e] appears sporadically, as *feoff* [fəf],
   *enfeoff* [ɪnˈfəf], *leopardy* [ˈləʊpə(r)di], *leopard*
   [ˈləʊpə(r)d]; *Geoffrey* [dʒəˈfeɪri], *Leominster*
   [ˈləʊmɪnstə(r)], *Keogan* [ˈkəgən].

h) *a* [æ], followed by *r*, is derived from ME. *a* [a] .

1. Before *re*, as *apare* [əˈpɛə(r)], *prepare*
   [ˈpreɪpə(r)], *care* [kɛə(r)], *bare* [bɛə(r)],
   *cure* [dɛə(r)], *fear* [fɛə(r)], *ware* [wɛə(r)],
   *rare* [rɛə(r)].

   Note: [*æ*] is used also in these words.

2. Before *rv*, as *Mary* [ˈmeəri], *wary* [ˈweəri], *chary*
   [ˈtʃæri], *library* [ˈlaɪbrəri], *canary* [ˈkænəri],
   *ary* [ˈɛəri], *mary* [ˈmeəri].
3. Before *r* followed by various vowels in Romance words, as *area* [əˈreə], *Clara* [ˈklaːrə], *Sarah* [ˈsærə], *Arian* [əˈriən], *variant* [ˈvɛrɪənt], *parents* [ˈpɛrənts], *caries* [ˈkærɪz], *various* [ˈvɛrəʃə].

Note: The [ə] glide may be omitted in these words.

4. Before *roc* in *scarce* [ˈskærəs], *scarcely* [ˈskærəsli] .

5. Before *l, m, n*, appears rarely, as *any* [ˈeni], *many* [ˈmeni]; *Thames* [ˈtɛmz], *Mall* [ˈmɛl], *Pall Mall* [ˈpɛl ˈmɛl].

1) *u* [u] developed through influence of the Kentish dialect, as *bury* [ˈberi], *burial* [ˈberiəl], *Bury* [ˈberi] Street, *Bury* [ˈberi] St. Edmunds, *Canterbury* [ˈkæntə(r)ˈberi].

j) *ue* [u] has the *u* as a result of French influence (a spelling device to preserve [۸]), as *guess* [ɡɛs], *guest* [ɡɛst], *guessing* [ɡɛˈzin].

k) *ae* [e] as in *Aetna* [ˈætnə], *Daedalus* [ˈde:dələs]; also before *r*, as *aerie* [əˈeri], *aeronaut* [əˈrəʊnət], *aerolite* [əˈrəʊlət].

l) *oe* [e], as in *Oedipus* [ˈɔdɪpəs].

m) *ey* [e], as in *Reynold* [ˈrɛnəld], *Reynell* [ˈrɛnəl], *Reynard* [ˈrɛnə(r)d]; also before *re, ry* (from
ME. ei ([əi]) , as eyre ([əːrə], eyry ([əːrɪ]).

n) ei ([ə]) before r in personal names, as Aaron
([əˈrəʊn]) and [əˈrən].

[ə]

NE. [ə] has the following written forms and sources:
a) a ([ə]) is derived a) from ME. a ([a]) which, in
turn derives from OE. a ([a]) or OFr. a ([a]);
or it is derived b) from ME. a ([a]) for an
older au ([au]) before mp or in Romance pretonic
syllables before v, m or before n followed by
a consonant; or it is derived c) from OFr. ai
([œ]) before ay.

1. In monosyllables before single final or
clustered consonants, as bad ([bæd]), past
([pæt]), cab ([kæb]), task ([tæsk]), bar ([bær]),
back ([bæk]), cap ([kæp]), hat ([hæt]), cas ([gas]),
as ([əs]), pal ([pæl]; spasm ([spæzm]), chasm
([kæzəm]), glass ([glas]), scalp ([skælp]).

2. Before affricative consonant clusters, as
cash ([kæʃ]), abash ([æbæʃ]), attach ([ætæʃ]),
mash ([mæʃ]), gadget ([gædʒɪt]), ratchet
([rætʃɪt]); cadge ([kædʒ]), badge ([bædʒ]), magic
([mædʒɪk]), Paget ([pæɡet]), fashion ([fæʃən]),
passion ([pæʃən]), imagine ([ɪˈmædʒɪn]).
3. Before final nasal or nasal followed by a consonant, as lamb [læm], ram [ræm], damn [ðæm]; lamp [læmp], stamp [stæmp], ran [ræn], ran [ræn], ban [bæn], bann [bæn], bang [bæŋ], wrangle [ræŋgəl], thank [θæŋk], tank [tæŋk], frankly [fræŋkli], band [bænd], sank [sæŋk], command [kəmænd].

4. After w only before k, g, ng, as quack [kwæk], thwack [θwæk], wax [wæks], wag [wæg], wagon [wæɡəŋ], swagger [swæɡə(r)], quagmire [kwæɡmaɪə(r)], twang [twæŋ], twangy [twæŋi]; also in the preterite swam [swæm].

5. Before a consonant followed by e, as bade [bæd], have [hæv], Anne [æn], axe, ex [eks], gramme [ɡræm], programme [proʊɡræm].

Note: Have and bade form exceptions to the rule of final e lengthening.

6. Before th [θ , ð ] in dissyllabic words, as gather [ɡæðə(r)], lather [læðə(r)], fathom [fæðəm], rather [ræðə(r)]; Mather [maθə(r)]; and before d in shadow [ʃəʊdə].

7. Before all geminated consonants, as apple [æpəl], battle [bætəl] or [bætəl], Bacchus [bæksəs], tobacco [təbəkoʊ], bubble [bʌbul], saddle [sædəl], faggot [fæɡət], baffle [bæfəl], sapphire [ˈsæfər(r)], navvy [ˈnævi] Br., classic
[klæsık], dazzle [dæzəl], ballad [bæləd], barrel [bærəl], hammer [hæmə(r)], channel [tʃənəl], annal [ənəl] and [ənəl]; harrvy
[bærvı], carry [kæri](but starrv [stɑːrɪ]; cf.
a) 7. under [ə] p. 131.

8. In originally pretonic syllables and before simple written consonants of Romance words,
as rapid [ræpid], chapel [tʃəpəl], atom [ətəm], Latin [lətɪn] and [lətɪ],[habit
[ˈhæbɪt], medem [ˈmedəm], dragon [drəɡən],
travel [trəvəl], facile [fæsəl], palace
[pələs] and [pələs], parish [ˈpærɪʃ], baron
[bərən], canon [ˈkænən].

9. Before clustered consonants in words of Romance origin, as chaplain [tʃəplɪn], atlas
[ətəlɪs] and [ətəlɪs], accent [æksənt], absent
[əbsənt], establish [ɪstəˈblɪʃ], padlock
[pædlək], fragment [ˈfræɡmənt], alpine [ˈælpən],
album [ˈælbəm], sample [ˈsæmpl], ambush
[ˈæmbəʃ], pamphlet [ˈpæmflɪt], mantle [ˈmæntl],
pantry [ˈpentri], scandal [ˈskændəl], cancel
[ˈkænsəl], franchise [ˈfræŋkwaɪz], bancuet
[ˈbæŋkwɪt], language [ˈlæŋgwɪdʒ]; exception
before et, as bastion [ˈbæʃən].

10. In accented antepenultimate syllables before consonants in words of Romance origin, as
attitude [ətɪtjuːd], cabinet [ˈkeɪbɪnit],
gravity [ˈɡrævəti], national [ˈnæʃənl],
bachelor [ˈbætʃələ(r)], majesty [ˈmeɪdʒɪsti],
salary [ˈsælərɪ], gallery [ˈgælərɪ], mariner
[ˈmærɪnə(r)], narrative [ˈnərətɪv], dramatist
[ˈdræmətɪst], vanity [ˈvænɪti], practical
[ˈpræktɪkəl], altitude [əltɪtjuːd], champion
[ˈtʃæmpɪən], ancestors [ˈæŋstə(r)z].
b) au [ɔ] is derived from ME. au [ɔu] before gh [x].
1. Before gh [f], as laugh [lɑf], laughter
[ˈlɑftə(r)], draught [draʊft], draughtsmen
[ˈdraʊtʃmən].
   Note: These words also use [a]; cf. b) 1.
   under [a], p. 132.
2. Dialectally before nt, as haunt [hɔnt],
   haunt [hɔnt].
3. Before nt in aunt [ʌnt], from OFr. a [a].
   Cf. b) 2. under [a], p. 132.
c) ei [ɛ] is borrowed from the Gaelic ei [ai] and
   OFr. ei [ɛi].
   1. As plaid [plaɪd] (Scot. plaid [plɛd]; Gaelic
      plaide [plaɪd]); also [pleɪd].
   2. As pleat [pleɪt] (OFR. pleit [plɛit]; L.
      plīcitum [plɪkitum]); also [pleɪt] and [plɛt].
d) aa [æ] is found in baa [bɑ] beside [bɛ].
e) i [ɛ], as meringue [mɛrɛŋ].
[a]

The single vowel a [ə] constituting the peak of sonority in either unisyllabic or polysyllabic words is not consistently used by many present-day speakers of the English language in America. In a few words which very largely employ the a [æ] sound, frequently will a [ə] be substituted as in last [last], past [past], class [klas], glass [glas], demand [dəmənd], etc., more rarely still a [ə]. The tendency toward the more frequent use of [ə] in the United States appears to be found in the speech of the native-born educated classes in certain areas. Sporadically [ə] is found in the speech of some of the people in words where the general feeling is that [ə] is preferable, as in lark [la(r)k], car [ka(r)], park [pa(r)k], etc. The diphthongs [əi] and [əu], naturally, have as their first elements the [ə] sound, but its use here is not to be considered apart from the development of the diphthongs.

[a]

NE. [ə] has the following written forms and sources:

a) a [ə] is derived from ME. a [a] which in the 13th Century became [æ] and [æ:] and in the 19th Century became [ə] once again. The conditions of the
[\text{a}] pronunciations are not extremely various, but in some parts of the world the 18th Century pronunciation still obtains, especially in America.

1. Before \text{ff}, \text{ft}, \text{th} [\theta], \text{ss}, \text{sp}, \text{st}, \text{sk}, as \text{staff} [\text{staf}], \text{craft} [\text{kraft}], \text{path} [\text{pæθ}], \text{glass} [\text{glas}], \text{grasp} [\text{grasp}], \text{last} [\text{last}], \text{basket} [\text{baskit}].

Note: [\text{æ}] and [\text{a}] are also used in these words.

2. Before \text{th} [\text{ð}] only in \text{father} [\text{fæðə(r)}], \text{rather} [\text{ræðə(r)}].

3. Before silent \text{l} before \text{f}, \text{v}, \text{m}, as \text{alf} [\text{kaf}], \text{half} [\text{haf}], \text{calves} [\text{kævz}], \text{halves} [\text{hævz}], \text{calm} [\text{kæm}], \text{alm} [\text{æm}], \text{palm} [\text{pæm}], \text{balm} [\text{bæm}], \text{almond} [\text{æmənd}]; exceptions: \text{valve} [\text{vælv}] (l not silent), \text{helm} [\text{hæm}], \text{almanac} [\text{ælmənæk}], \text{salmon} [\text{sæmən}]. The [\text{æ}] sound is often used dialectally in \text{calm}, \text{palm} and \text{balm}.

4. Before \text{nt}, \text{nd}, \text{ns}, \text{næe} [\text{n(t)s}], \text{neh} [\text{nθ}], as \text{grant} [\text{grant}], \text{can't} [\text{kænt}] (but \text{cant} [\text{kænt}]), \text{command} [\text{kəmænd}], \text{chandler} [\text{θændə(r)}] (but \text{glander} [\text{gλændə(r)}]), \text{answer} [\text{æn(t)sə(r)}], \text{glance} [\text{ɡlænt(t)s}] (but \text{finance} [\text{fɪnənt(t)s}]), \text{blanch} [\text{blæntθ}].

Note: [\text{æ}] and [\text{a}] are also used in these words.
5. Sometimes before mp, as sample [sæmpəl],
example [ɪgzæmpəl].

6. In modern loan-words, as drama [dræmə],
drama, lava [lævə], mirage [mɪrɑːʒ],
panorama [pænərəmə], mamma
[mʌmə], papa [pæpə], banana
[ˈbænənə], tomato [təmətə],
caste [kɑːst], promenade [ˈprəməneɪd],
Slav [slæv].

7. Before final r and r followed by a consonant,
from ME. e [ɛ] before final r or r followed by
a consonant, as oar [ka(r)], bar [ba(r)], cigar
[siɡa(r)], oastarrah [kəta(r)], bizarre [bɪza(r)],
sharp [ʃa(r)p], part [pa(r)t], arc [a(r)k],
stark [sta(r)k], barb [ba(r)b], hard [ha(r)d],
scarf [skɑː(r)f], farce [fa(r)s], harsh
[ha(r)ʃ], arch [a(r)tʃ], barce [ba(r)dʒ], snarl
[snə(r)l], alarm [aɪˈla(r)m], yarn [ja(r)n],
harbor [ˈhɑːbə(r)], starboard [sta(r)bə(r)d];
are [a(r)], starry [ˈstɑːrɪ]. Cf. a) 7. under [ə],
p. 126.

8. Before silent h in ah [a], hah [ha], hurrah
[hura] and [hurə]; brahma [ˈbræmə], etc.
b) au [ə] derives from ME. au [au] in a few words
in which ME. gh [ʃ] became [f]. In the 17th Century this au was sounded [æ], [æ], but in the 19th Century became [a].

1. Before gh [f], as laugh [lɑf], laughter [laftə(r)], draught [draft] beside draft [draft] and [draft]. Cf. [ɔ], b) l. p. 123.

2. Occasionally before nt, nd, nch, as aunt [aunt] and [ɔnt], vaunt [vant] and [vɔnt], daunt [dant] and [dɔnt], haunt [hant] and [hɔnt], launch [lɔntʃ], and [lɔntʃ], laundry [landri] and [lɔndri], gaunt [gant] and [gɔnt], staunch [stɔntʃ] and [stɔntʃ], haunch [hantʃ], [hɔntʃ].

c) aa [a] is found in some loan-words.

In kraal [krɑl] (Du.), salaam [sələm] (Ar.), bazaar [bəzə(r)] (Per.); also in bœa [ba].

d) e [a] isolatedly before r followed by a consonant, as sergeant [sɑ(r)dʒənt], clerk [klə(r)k] and [klɔ(r)k], Derby [də(r)bɪ] and [dɔ(r)bɪ].

e) eau [a], as bureaucracy [bjʊərəkrəsɪ].

f) oï [a], as boudoir [budwɔ(r)] (Fr.).

g) ea [æ], before r as hearth [hɑ(r)θ], heart [hɑ(r)t].
The NE. [v] phoneme has the following written forms and sources:

a) o [v] from the ME. o [v–ο] is variously enunciated in NE. as [v–ο–α]. British English usage is almost invariably [v], while that of American English is all three, [v] being more consistently heard in New England and in the East generally than elsewhere in America. In the General American (North, Middle West and West) speech area and in the Southern American speech area [α] and [ο] are rather generally used. However, [α] and [ο] are interchangeable only in a limited number of words like fog [fag – fog], swamp [swamp – swamp (Dial.)], bog [bag – bog], etc. Cf. b) 2. under [α], p. 132.

1. Before stop consonants, as hop [hp], lop [lɔp], chop [tʃɔp], drop [drɔp], hot [hɔt], not [nɔt], cock [kɔk], rock [rɔk], ox [ɔks], fox [fɔks], rob [rɔb], rod [rɔd], dog [dɔg], fog [fɔɡ].

2. Before nasal or a nasal followed by a consonant, as from [frʌm], bomb [bɔm] and [bɒm], pomp [pɔmp], prompt [prɔm(pd)t], on [ʌn], upon [ʌpʌn], fond [fɔnd], beyond [bʌnd].
response [rɪˈspɒnt], bronze [brəʊn], long [lɒŋ], tones [tɒnz].

3. Before ne in gone [ɡən]; but shone [ʃən], [ʃən], one [wʌn], done [dʌn].

4. Before other consonants occasionally, as bosh [bɒʃ], Scotch [skɔtʃ], lodge [lɒdʒ], absolve [əbˈsəlv], resolve [rɪˈzɔlv].

5. Before ll only in doll [dɒl], loll [lɒl], poll [pɒl], (but poll [pɒl], toll [tɒl]).

6. Posttonically before gue [ɡ], as catalogue [kəˈleɪtɪdʒ], pedagogue [ˈpɛdəɡəʊ], synagogue [ˈsɪnəɡəʊ]; also Gog [ɡɒɡ], Magog [ˈmeɪɡəɡ].

7. Before v, th, sp, st and before n followed by a consonant in dissyllabic words of Germanic origin, as hover [hʌvə(r)], grovel [ɡroʊvəl], hovel [hʌvəl], bother [bəˈθə(r)], Gothic [ɡəθɪk], gospel [ˈɡɒspəl], foster [ˈfɒstə(r)], fondle [fɒndəl], donkey [dɒnki]; also in lobster [ˈlɒbster(r)].

8. Rarely before single consonants of Germanic origin as body [bɒdi], bodice [ˈbɒdɪs], holiday [ˈhɒlɪdɪ] and [ˈhɒlɪdeɪ], forehead [ˈfɔːrˌhɛd] and [ˈfɔːrU(r)hɛd].

9. Before all doubled consonants in words of both Germanic and Romance origin, as poppy [ˈpɒpi], cottage [ˈkɒtɪdʒ], bottle [ˈbɒtli].
bottom [bɒtəm], pocket [pɒkɪt], lobby [ˈlɒbi], shoddy [ˈʃədi], sodden [ˈsɒdən], joggle [ˈdʒɒgl], toggle [ˈtɒgl], coffin [ˈkɒfin], fossil [ˈfɒsəl], gossip [ˈɡɒspəl], dollar [ˈdɔlə(r)], torrent [ˈtɜrənt], sorry [ˈsɒri], common [ˈkɒmən], sonnet [ˈsɒnɪt].

10. In originally pretonic syllables of Romance words, as tropic [tropɪk], copy [ˈkɒpi], profit [ˈprɒfɪt], prophet [ˈprɒfɪt], model [ˈmɒdl], robin [ˈrɒbin], locund [ˈdʒʊkænd], patriotic [ˈpætrɪəptɪk], product [ˈprɒdʌkt], solid [ˈsɒld], novel [ˈnɒvəl], moral [ˈmɔrəl], forest [ˈfɔːrist], homage [ˈhʌmɪdʒ], comet [ˈkɒmɪt], promise [ˈprəmɪs] and [ˈprəmɪs], honest [ˈɒnɪst] and [ˈɒnɪst], polish [ˈpɒlɪʃ] (but Polish [ˈpɔliʃ]), volume [ˈvɒlmə], oral [ˈɔrəl] and [ˈɔrəl].

11. Before consonant clusters in words of Romance origin, as doctor [ˈdɒktə(r)], cockney [ˈkɒkni], noxious [ˈnɒksəs], object [ˈɒbdʒkt], problem [ˈprəbləm], goblin [ˈɡɒblɪn], jostle [ˈdʒɒsəl], hostile [ˈhɒstəl] and [ˈhɒstəl], costume [ˈkɒstjum] and [ˈkɒstjum], accomplish [əˈkʌmplɪʃ], horizontal [ˌhɒrɪzəntəl], demonstrate [ˈdɪmənstrət] and [ˈdɪmənstrət], monstrous [ˈmɒnstrəs], conscious [ˈkɒnsɛs], poniard [ˈpɒniərd].
12. Before single and doubled consonants in antepenultimate accented syllables of Romance words, as tropical [trəpɪkəl], botany [ˈbɒtənɪ] and [bɒtənɪ], probable [ˈprɔbəbəl], periodical [ˈpəridɪkəl], poverty [ˈpəvə(r)ti], philosophical [ˌfɪləˈsofɪkəl], generosity [dʒəˈnɜːrəsɪtɪ], philology [fɪˈlɒlədʒɪ], apologize [əˈpɒlədʒaɪ], voluble [ˈvɒljəbəl], oracle [ˈɔrɪkəl], ominous [əˈmɪnəs], lottery [ˈlɑrətɪ], mockery [ˈmɒkərɪ], biography [ˌbaɪˈɒgrəfɪ].

b) a [ɒ] is derived from ME. a [ə] and e [ɛ] through influence of a preceding w.

1. After w, sw, tw, wh, qu, sau before labials and alveolars, as wad [wæd], was [wəz], wasp [wæsp], wash [wɔʃ], wâ [wɔ], watch [wɔtʃ], wan [wɔn], want [wɔnt], wattle [wɔtl], waddle [wɔdl], waffle [wɔfəl], wassail [wɔˈsɔl] (OE. wæs hal [wæs hæl] = be of good health), wallet [ˈwɔlɪt], warrant [ˈwɔrənt], swamp [swɔmp], swan [swɔn], swaddle [swɔdl], swallow [swɔloʊ], twaddle [twɔdl], what [wɔt], quash [kwaʃ], quarrel [kwɔrəl], quarry [kwaˈri], quality [ˈkwɒləti], squat [skwɔt], squad [skwɔd], squash [skwɔʃ], squabble [skwɔblə].
squalor [skwɔlə(r)], squander [skwɔndə(r)];
also in scallop [skɔlp] and yacht [jɔt].

Note: [a] is also used in these words.

c) ou [ʌ] before gh [k], in a few Celtic words,
as though [θʌk], lough [lɔk], hough [hʌk];
also in Gloucester [glʌstə(r)].

d) ow [ɔ] in knowledge [nəldʒ], acknowledge
[əknəldʒ], etc.

e) au [ɔ] in a few French loan-words, as laurel
[ˈlɔːrl], laudanum [ˈlɔːdənəm] and [ˈlɔːdənəm],
sausage [ˈsɔsɪdʒ], cauliflower [ˈkɔlfələʊ(r)].

[ɔ]
The NE. [ɔ] phoneme has the following written forms and sources:

a) a [ɔ] is derived from ME. a [a].

1. Before final 1l, 1, and before l followed
   by a consonant, as all [ɔl], also [ɔlsoʊ],
amost [ɔməst] and [ɔməst], withal [wɪθəl],
always [ɔlweɪz] and [ɔlˈwəz], pell [pɔl],
tall [tɔl], call [kɔl], wall [wɔl], walnut
[wɔlnt], appal [əpɔl], salt [sɔlt], melt
[mɔlt], exalt [ɪgˈzɔlt], waltz [ˈwɔltz], bald
[bɔld], scald [skɔld], alderman [ˈɔldə(r)man].
Exception: shall [ʃɔl]; Cal [ˈkæl] (proper noun).
2. Before silent \( l \) followed by \( k \), \( m \), as talk \([ток]\), walk \([вук]\), chalk \([тʃоk]\), halm \([համ]\), shalm \([ʃամ]\).

3. Before \( l \) followed by a consonant in penultimate or antepenultimate syllables of Romance words, as altar \([оltə(r)]\), alter \([оltə(r)]\), falter \([фолтə(r)]\), paltry \([пəлтəри]\), falcon \([фəлкəн]\), [фəкəн], [фəлкəн], caldron \([калдрəн]\), almanac \([алманəк]\), Albany \([албəни]\), Salisbury \([сəлзбəри]\).

4. After \( w \), as swath \([swəθ]\) and \([swəθ]\).

5. After \( w \) in open syllables, as water \([вəтə(r)]\), watery \([вəтəри]\).

6. In Magdalen \([мəдлəн]\) College.

7. After \( w \) before \( r \) followed by a consonant, as wart \([вəрт(r)т]\), ward \([вəрд(r)д]\), warlock \([вəрлəк]\), warm \([вəрт(r)м]\), warn \([вəрн(r)n]\), sward \([swəт(r)d]\), swarm \([swəт(r)m]\), swarthy \([swəт(r)ти]\), quart \([квəт(r)t]\), war \([вəт(r)]\), warn \([вəт(r)p]\), warble \([вəт(r)бəл]\), dwarf \([дəвəт(r)f]\), athwart \([əθвəт(r)t]\), wharf \([вəт(r)f]\).

b) au \([ɔ]\) is derived from ME. au \([əu]\).

1. Before silent \( gh \), as aught \([пт]\), naught \([нəт]\), taught \([тəт]\), caught \([кəт]\), daughter \([дəтə(r)]\), slaughter \([слəтə(r)]\), haughty \([нəтɪ]\), laugh \([fə]\).
2. Before \( l \) or \( l \) followed by a consonant, as 
- Paul \( [p\,ol] \), Gaul \( [g\,ol] \), maul \( [m\,ol] \), fault \( [f\,olt] \), vault \( [v\,olt] \), assault \( [s\,olt] \),
- cauldron \( [k\,old\,r\,n] \); also before silent \( l \)
followed by \( k \), as baulk \( [b\,ok] \) beside balk \( [b\,ok] \); and in auk \( [a\,k] \), nutch \( [n\,ut\,c] \).

3. Before \( n \) followed by a consonant, as daunt
- [d\,ont], haunch \( [h\,ont\,f] \), staunch \( [s\,ont\,f] \),
- saunt \( [g\,ont] \), gauntlet \( [g\,ont\,l\,t] \), launder \( [l\,an\,d\,e\,(r)] \), jaundice \( [j\,an\,d\,i\,s] \) (cf. b) 2.
under \( [a\,] \), p. 132.

4. Before other consonants in Romance words,
as auction \( [k\,\,o\,n\,n] \), nautical \( [n\,ot\,i\,k\,\,o\,l] \), daub
- [d\,ob], bauble \( [b\,o\,b\,l] \), autumn \( [o\,t\,e\,m] \), auburn
- [o\,b\,o\,(r)n], gaudy \( [g\,o\,d\,i] \), fraud \( [f\,r\,o\,d] \), pauper
- [p\,o\,p\,e\,(r)], audience \( [a\,d\,i\,n\,(t)\,s] \), sauce \( [s\,c\,s] \),
- pause \( [p\,o\,z] \), cause \( [k\,o\,z] \), gauze \( [g\,o\,z] \), caution
- [k\,o\,n\,n] , cautious \( [k\,o\,s] \), applause \( [a\,p\,l\,o\,z] \),
debauch \( [d\,ib\,o\,t\,f] \), hydraulic \( [h\,a\,i\,d\,r\,o\,l\,i\,k] \);
August \( [g\,o\,\,s\,t] \) and august \( [g\,o\,\,s\,t] \), autumnal
- [o\,t\,u\,m\,n\,o\,l], landau \( [l\,a\,n\,d\,\,o\,] \).

c) \( a\,w \) \( [\,o\,] \) is derived from ME. \( a\,u \) \( [a\,u] \).

1. Finally within a word or syllable, as paw
- [p\,o\,], saw \( [s\,i\,] \), law \( [l\,o\,] \), thaw \( [\,o\,] \); hawthorn
- [h\,o\,\,t\,o\,(r)n], straw \( [s\,t\,r\,o\,] \), lawyer \( [l\,o\,\,j\,o\,(r)] \),
awfully \( [p\,f\,o\,l\,i\,] \).
2. Before k, l, m, n, as hawk [hɔk], rancak
   [ɡɔk], awkward [ɔkwɔ(r)d]; tomahawk [tɔmɔhɔk];
   awl [ɔl], shawl [ʃɔl], crawl [krɔl], trawl
   [trɔl], shawm [ʃɔm] beside shalm [ʃɔm], dawn
   [dɔn], brawn [brɔn], yawn [jan], lawn [lɔn];
   sporadically before d in bawd [bɔd], dawdle
   [dɔd].

d) awe [ɔ] is derived from ME au [au].
   In awe [ɔ], a single instance.

e) ou [ɔ] is derived from ME. ou [ɔU] before ph [X].
   1. Before silent ph followed by t, as ought
      [ɔt], ought [ŋɔt], bought [bɔt], fought [fɔt],
      wrought [ŋɔt], sought [ɔt], brought [brɔt],
      thought [θɔt].

2. Before ph [f], as cough [kɔf], trough [trɔf].

3. Before r or r followed by a consonant (de-
   rived from ME ou [ɔU] before r), as four
   [fɔə(r)] and [fɔuə(r)], fourth [fɔə(r)θ] and
   [fɔuə(r)θ], four [fɔə(r)] and [fəuə(r)], mourn
   [mɔə(r)n] and [mouə(r)n], mourning [mɔə(r)nɪŋ]
   and [mouə(r)nɪŋ], bourne [bɔrə(r)n] and [bouə(r)n],
   court [kɔə(r)t] and [kouə(r)t], course [kɔ(r)s]
   and [kouə(r)s], source [sɔə(r)s] and [souə(r)s],
   gourd [ɡɔə(r)d] and [gouə(r)d].

f) o [ɔ] is derived from ME. o [ɔ].
   1. Before final ff, ft, th, as, at, as off [ɔf]
and [əɾ], oft [ɔft], loft [loft], soft [soft], often [ɔfən] and [ɔfən], soften [əfən] and [əfən], moth [məθ], cloth [kləθ], cross [kros], lost [lost], frost [frost].

Note: These words are also pronounced with [ɾ] .

2. Before final r, re or r followed by a consonant, as nor [nɔ(r)], for [fɔ(r)], more [mɔ(r)] and [moʊ(r)], shore [ʃɔ(r)] and [ʃoʊ(r)]; short [ʃɔ(r)t], port [pɔ(r)t] and [pɔʊ(r)t], pork [pɔ(r)k] and [pɔʊ(r)k], absorb [əbsɔ(r)b], lord [lɔ(r)d], north [nɔ(r)θ], horse [hɔ(r)s], storm [stɔ(r)m], horn [hɔ(r)n], born [bɔ(r)n]; forty [fɔ(r)t], morning [mɔ(r)nɪŋ], torch [tɔ(r)tʃ], corpse [kɔ(r)ps], corpse [kɔ(r)ps] and [koʊ(r)p].

Note: [ə] may be pronounced before (r) in these words.

3. Before r or r followed by a consonant in penultimate or antepenultimate words of Romance origin, as mortal [mɔ(r)təl], glory [ɡlɔrɪ] and [ɡlɔrɪ], portal [pɔ(r)təl] and [pɔʊ(r)təl], important [ɪmˈpɔ(r)tənt], morbid [mɔˈbɪd], organ [ɔ(r)ˈɡæn], orphan [ɔ(r)ˈfɑn], forfeit [fɔ(r)ˈfɛt], morsel [ˈmɔsəl], fortune [ˈfɔr(t)ən], hornet [hɔ(r)nɪt], corner
[kɔ(r)nɔ(r)], orgy [ɔ(r)dʒ], editorial
[editorial] and [editorial], historian
[historian] and [historian], ordinary
[ɔ(r)dʒən] and [ɔdʒə], ornament
[ɔ(r)nəmənt], cordial [kɔ(r)dʒəl], corporal
[kɔ(r)pərəl], fortify [fɔ(r)tifai].

Note: [ə] may be used before (r) in these words.

g) oo [ɔ] is derived from ME. o [ɔ].
Before r, rd, ree, as oar [ɔ(r)] and [ou(r)],
soar [sɔ(r)] and [soʊ(r)], roar [rɔ(r)] and
[roʊ(r)], board [bɔ(r)d], and [boʊ(r)d], hoard
[hoʊ(r)d] and [hoʊ(r)d], hoarse [hoʊ(r)s] and
[hoʊ(r)s], coarse [kɔ(r)s] and [koʊ(r)s]; broad [brɔd].
Note: [ə] may be used in these words before (r).

h) ao [ɔ] is a hybridism, as extraordinary
[kɔstrɔrdʒə] Br.

i) oo [ɔ] is derived from ME. o [ɔ].
Before r, as door [dɔ(r)] and [dou(r)], floor
[floʊ(r)] and [floe(r)].
Note: [ə] may be used before (r) in these words.

j) oi [ɔ], as in reservoir [rezəvɔr(r)].
k) eo [ɔ], as in George [dʒɔɡ(r)dʒ].

[ɔ-ou]

The NE. [ɔ-ou] phoneme has the following written forms and
sources:
(Wherever the phoneme is quantitatively unstressed pure [o] will be transcribed):

a) o [OU] is derived from ME. o [ɔː] which remained unchanged in the 16th Century, but which in the 17th Century changed to [o], and in the 19th Century to [OU].

1. Finally and tonically, as so [soU], so [goU], ago [goU], lo [loU], no [noU], oh [OU], apropos [əprəpou]; posttonically, as hero [hiro], Negro [nigro], tobacco [təbæko], buffalo [bæfalo], folio [foUliO], also [əlso], depot [diPO] and [di'pou].

2. Before a consonant (except r, cf. f) 2. and f) under [ɔ], pp. 141-142.) followed by e, le, er, re, en, v, as hope [hoUp], elope [iloUp], note [noUt], remote [rəmou], oae [ouD], rogue [roug], rose [rouz], spoke [spouk], yoke [jouk], home [hoUm], bone [boUn] (the final -e preserves the long o [OU] in these words); noble [noUbəl], ogie [ouGar], ocher [oukə(r)], olover [klouva(r)], stoker [stoUkə(r)], ogre [ougə(r)], ochre [oukə(r)]; open [ouPən], stolen [stoUlən], broken [broUkən], token [toUkən].

3. In open penultimate or antepenultimate accented syllables of Romance words, as open [ouPəl], local [loUkəl], total [toUt], poet [pouUt],
poem [poʊm], locust [ˈlɒkəst], October [ˈɒktəbə(r)], soda [ˈsəʊdə], odor [ˈoʊdə(r)], ocean [ˈɔːʃən], social [ˈsəʊʃəl], motion [ˈməʊʃən], solo [ˈsəʊloʊ], colon [ˈkəʊlən]; heretical [ˌhɪrəˈtɪkl], melodious [ˌmeloʊˈdiəs], emotional [ɪˈməʊʃənəl], colonial [ˌkəʊləˈnɪəl], jovial [ˈdʒəʊvɪəl], Ethiopian [ˈ伊θiəpɪən], Utopia [ˈjuːtəpɪə], erroneous [ɪˈrəʊnɪəs], votary [ˈvəʊtərɪ].

4) Before final 11, l and before l followed by a consonant (derived from ME. o [o] diphthongized to [ou] in the 16th Century, later simplified to [o] and now diphthongized to [ou], as toll [tɔʊl], poll [pɔʊl], knoll [nɔʊl], roll [rɔʊl], patrol [ˈpətrəʊl], control [ˈkəntrəʊl], bolt [bɔʊlt], soldier [ˈsəʊldər(r)], old [ˈəʊld], gold [gəʊld], molten [ˈməʊltən].

5. Before silent l followed by k, b, m (derived from ME. ou [u], simplified to [o] in the 17th Century, and diphthongized to [ou] in the middle of the 19th Century, as yolk [ˈjɔlk], folk [ˈfʊlk], Holborn [ˈhoʊbə(r)n], holm [ˈhʊm], Holmes [ˈhoʊmz].

6. Before mb, nt, as comb [ˈkəʊm], won't [ˈwʊnt], don't [ˈdəʊnt]; Catacombs [ˈkætəkəmbs].
7. Now and then before b, th, ss, st, as Job [dʒɔu̯b], both [bʊθ], quoth [kwʊθ], sloth [sloʊθ], gross [grʊs], post [pʊst], ghost [gʊst] (Du. ghāist [gaɪst]) most [moʊst].

b) oe [ou] from ME. a [ɔː], as toe [tou], foe [fou], woe [wou], hoe [hou], sloe [slou], roe [rou], three [θrou], mistletoe [mɪsˈtloʊu], felloe [felou]. Cf. b) under [u] p. 150, and e) under [ʌ], p. 160.

c) oo [ou] from ME. o [ɔː],

Before final consonants (except f, cf. g) under [ɔ], p. 142), as boat [bou̯t], goat [goʊt], soak [souk], soap [soʊp], oak [ouk], toad [touḍ], road [roud], oaf [ouf], loaf [louf], loath [louθ], loathe [louθ], coal [koul], foal [foul], foam [foum], moan [moun], roast [roʊst], boast [boʊst], poach [pou̯tʃ], coach [kou̯ʃ]; loaves [louvz], oakum [oukəm]; cocoa [kouko].

d) oo [ou] from ME. o [ɔː], as brooch [broʊtʃ],

(cf. 1) under [ɔ], p. 142).

e) ou [ou] from ME. ou [ɔu], becoming simplified to [ɔ], later going to [ɔ], and finally in the 19th Century to the present-day [ou].

1. Before silent gh, as dough [dou̯], though [θou], douchy [dou̯]. Cf. d) under [u], p. 150;
a) under [au], p. 171.
2. Before /or l followed by a consonant
(from ME. ou [u], becoming [ou] in the 16th
Century, simplified to [ɔ:] in the 17th Cen­
tury, and since the middle of the 19th Century
diphthongized to [ou],) as soul [sou], moult
[moult], mould [mould], shoulder [soUd(r)],
poult [poUlt], poultry [poUltri], poultice
[poultis], smoulder [smoUld(r)]. Cf. a) under
[aU], p. 171.

f) ow [ou] is derived from ME. ou [ou], becoming
[ɔ:], later [ɔ], finally (19th Century) [ou].

1. Finally, as low [low], blow [bloU], snow
[snoU], flow [floU], crow [krou], grow [groU],
throw [groU], know [noU]; posttonically, as
tallow [taUlo], fallow [faUlo], follow [foUlo],
pillow [piUlo], fellow [feUlo], borrow [buUro],
sorrow [suUro], window [wiNdo], morrow [muUro],
bungalow [buUgalo]. Cf. b) under [aU], p.172.

2. Medially and stressed, in derivatives, as
lower [luU(r)], lowered [luU(r)d], grown
[groU], growth [groU], mown [moU], mowing
[moU].

3. Before l, n, as bowl [bou], own [oUn]; and
in Lowell [lowU], Snowdon [snoUdn].

g) owe [ou] in owe [ou], a single instance.
h) **sw** [ou] in **sew** [su], **sewn** [sou̯], **shew**
   ([ou]); but **few** [fju]. Cf. 1) 3. under [u],
   p. 154.

1) **so** [ou] in **yeoman** [joʊmən], a single instance.

2) **au** [ou] in French loan-words, as **hautboy**
   [hoʊbɔɪ], **gauche** [gou̯].

3) **eau** [ou] in French loan-words, as **beau** [boʊ],
   **beaux** [boʊʃ], **Beaumont** [boʊmɔ̯t]; **bureau**
   [bjuəroʊ], **portmanteau** [pɔ(r)tma̯to].

[**U**]

The **NE.** phoneme [**U**] has the following written forms and
sources:

a) **u** [**U**] is derived from **ME. u** [**U**].
   1. After **b, p, f** before **1l**, or **l** followed by
      a consonant, as **pull** [pʊl], **bull** [bʊl], **full**
      [fʊl], **fulfil** [fʊlˈfɪl], **pullet** [pʊlˈət],
      **pulley** [pʊlˈli], **bullet** [bʊlɪt], **bully** [bʊlɪ],
      **bulletin** [bʊlɪˈtɪn], **pulpit** [pʊlpɪt], **bullion**
      [bʊljən], **bulbul** [bʊlbʊl], **bullock** [bʊlk],
      **bulwark** [bʊlˈwɔ(r)k].
   2. Before **se, sh, tch**, as **push** [pʊʃ], **puch**
      [pʊʃ], **bush** [bʊʃ], **bushel** [bʊʃəl], **butcher**
      [bʊtʃə(r)]; **cushion** [kʊʃən].
   3. Before **re**, as **cure** [kjuə(r)], **dure** [djuə(r)],
      **endure** [ɛndjuə(r)], **pure** [pjuə(r)], **mature**
4. In penultimate or antepenultimate open syllables of Romance words before r, as purist [pjuːrɪst], purism [pjuːrɪzəm], curate [kjuːrɪt], endurance [endjʊrən(t)s]; curious [kjuːriəs], furious [fjuːriəs], spurious [spjʊriəs], purity [pjuːrɪtɪ] (See note on [j], p. 151).

5. Before t, d only in put [pʊt], pudding [pʊdɪŋ].

b) o [ʊ] comes from ME. u [U].

After w before lip and tongue-point consonants, as wolf [wʊlf], woman [wʊmən], worsted [wʊstɪd], wolsley [wʊlzɪ], worcester [wʊstə(r)], Wolston [wʊlstən]; also after b in bosom [bʊzəm], Boleyn [bʊlɪn].

c) oo [ʊ] comes from ME. o [ɔ], from an older oo [u].

1. Before lip and tongue-point consonants, as wood [wʊd], wool [wʊl], woof [wʊf], Woolwich [wʊltʃ].

2. Before t, d, k, as foot [fʊt], soot [sʊt]; stood [stʊd], good [ɡʊd], childhood [tʃaɪldhʊd]; took [tʊk], look [lʊk], book [bʊk], nook [nʊk], hook [hʊk], cook [kʊk], shook [ʃʊk], brook [brʊk].
The ME. [u] phoneme has the following written forms and sources:

a) o [u] is derived from ME. o [ə] or from ME. ou [u].

1. Finally, as do [du], to [tu], two [tu], who [hu].

2. Before m, mb, as whom [hum], tomb [tum], womb [wum].

3. Before ve, se [z], as prove [pruːv], move [muv], approve [pruːv], lose [luːz], whose [huz]; but rove [ruːv], hose [houz], glove [gləv].
b) **oe [u]**, from ME. **o [o]**, as _shoe_ [ʃu], _canoe_ [kænu]; before _r_, as _Boer_ [buə(r)].

c) **oo [u]**, from ME. **o [o]**.

1. Finally, as _zoo_ [zu], _woo_ [wu], _too [tu]_,
   _pooh_ [pu], _kangaroo_ [kæŋɡəru], _cockatoo_ [kɔkətu].

2. Before single final tongue-point, consonants,
   as _brood_ [brud], _boon_ [bun], _baboon_ [bæbun], _pool_ [pul], _proof_ [pru], _hoof_ [huf] and _[huf]_, _tool_ [tul], _tooth_ [tuθ], _pool_ [pul], _smooth_ [smuθ], _roof_ [ruf], _mood_ [mud], _root_ _[rut],_ _fool_ [ful], _school_ [skul], _moon_ [mun], _soon_ [sun], _loop_ [lup], _food_ [fud], _saloon_ [salun], _cool_ [kul]. Cf. c) 1., 2. under [U], p. 148.

3. Before _st_, _se_ [s, z] _z, ve_ (lip and tongue-point consonants), as _roost_ [rʊst], _goose_ [gus], _loose_ [lus], _choose_ [t/uz], _groove_ [ɡrʊv], _ooze_ [uz]; also _poodle_ [pʊdɔ], _loony_ [luni], _gloomy_ [ɡlum], _coolie_ [kul].

d) **ou [u]** from ME. **ou [ou]** simplified later to [u].

1. After _y_ in _you_ [ju], _youth_ [juθ].

2. Before silent _gh_ in _through_ [θru], _Brougham_ [brum]; also in _ghoul_ [ɡul], _wound_ [wund] and _[waʊnd],_ _ouse_ [uz], _ouzel_ [uzəl], _ouzel_ [uzəl].
In French loan-words (from ME. ou [u]),
as gout [gu], sou [su], coup [ku], ragout [rāgu], billetdoux [bīlēdū] or [bīlēdu], soup [sup], croup [krup], groupe [grup], route [rut], rouge [ruʒ], cartouche [ka(r)t(fu)], patchouli [pætʃuli].

e) u [u] is derived from ME. u [u].

Note: An assimilated [j] is pronounced before [u] in all the words in this section if [u] is initial or follows any consonant except r, [ʃ], [ʒ], [ʒ], and sometimes 1.

1. After y, l [dʒ], l, r before a voiced (or voiceless) consonant, as Yule [juI]; lute [lut], rule [rul], salute [səlut], jute [dʒut], June [dʒun], plume [plum], allude [əlud], rude [rud], spruce [spru], allusion [əljuʃən], prudish [prudj], plumage [pluˈmædʒ], frugal [fruɡəl], luminous [ˈljuːmənəs], jubilee [dʒuˈbɪli], juvenile [dʒuvənəl] and [dʒuvənəl], rumour [rʊmə(r)], solution [səˈluːʃən], tulle [tʊl]; gnu [nu].

2. Before some consonants followed by e (preceded by assimilated [j]), as use [juz] and [juz], rebuke [riˈbʌk], cube [kjuːb], dupe [djuːp], tube [tjuːb], refute [riˈfjuːt], mute [mjuːt], acute [əˈkjuːt], duke [djuːk], fugue
Before a single consonant followed by le, y, as bugle [bjugl], duty [djuti], puny [pjuni].

In penultimate or antepenultimate accented open syllables of Romance words, as stupid [stjupid], pupil [pjupl], ducal [djukəl], cubit [kjubit], student [stjudant], usage [jusidʒ], music [mjuziʃ], future [fjuʃə(r)], tulip [tuli p], human [hjumən], humor [hjumə(r)], unit [junit]; dubious [djuβiəs], studious [stjudiəs], mutual [mjutjuəl], fortuitous [fɔ(r)tjuətəs], gratuitous [grætjuətəs], numerous [njumərəs], funeral [fjuənərəl] (See note on [j], under e), p. 151.

Before silent ch, ch and silent g followed by n, as Hugh [hju], Hughes [hjuz]; fuchsia [fjuʃə]; impugn [impuŋən], repugn [riŋpuŋ] (See note on [j], under e) p. 151.

After r before th (from ME. eu [eU]), as Ruth [ruθ], truth [truθ].

f) ue [u] is derived from ME. eu [eU] and u [y].
Finally (derived from 16th Century ME. u [y]), as cue [kjœ], hue [hju], due [dju], sue [sju] and [su], pursue [pœ(r)sju] and [pœ(r)su]; posttonically, as argue [a(r)gju], value [vælju], statue [stætju], rescue [ræskju], continue [kæntinju], retinue [ritinju], avenue [ævænju], revenue [rævænju]; Tuesday [tjuzdi]; blue [blu], glue [glu], rue [ru], true [tru], construe [kɔnstru], virtue [va(r)ju], issue [ɪʃu] and [ɪʃju], clue [klu] (See note on [j], p. 151.

g) uɪ [u] is derived from ME. u [y].
As juice [dju:s], sluice [slu:s], cruise [kru;z], recruit [rɪˈkrʊt], bruise [bruːz], fruit [fruːt]; suit [sʊt] and [sju:t], suitable [səˈtuːl] and [sjuˈtəl], pursuit [pə(r)suːt] and [pə(r)sjuːt], nuisance [nəˈsuːns] and [njʊˈsuːns].

h) eu [u] and [ju] is derived from ME. eu [eʊ].
As deuce [dju:s] and [dju:s], feud [fjuːd], feudal [fjuːdəl], eulogy [juˈlɒdʒi], euphemism [juːˈfɛmɪzəm], neutral [njʊtrəl] and [njuːtrəl]; pleurisy [ˈplʊrəsɪ], rheum [rʊm], rheumatism [rʊˈmeɪtɪzəm].

i) eue [u], as queue [kju].

j) ew [u] is derived from ME. eu [eʊ].

1. After sh [ʃ], ch [tʃ], l [l], x [ʃ], ð; r, as shew [ʃu] (obsolete), chew [tʃu], eachew
[astʃu], Jew [dʒu], jewel [dʒuːl], yew [jʊ],
slew [slu], clew [klu], blew [blu], strew
[stru], crew [kru], screw [skru], drew [dru],
shrew [ʃru).

2. From ME. eu [æU], as lewd [lud], shrewd
[ʃrud], Lewis [luːs]; Hebrew [hɪbru].

3. Finally (from ME. eu [æU] ), as dew [dju] and
du], new [pju], saw [spju], stew [stju] and
[stu], few [fju], hew [hju], new [mju], new
[nju] and [nu], knew [nju] and [nu]; post-
tonically in curfew [k3(r)fju], nephew [næfju]
and [nævju], Matthew [mæθju]; before a vowel
in steward [stjuə(r)d] and [stuə(r)d], and
before l, n, t in mewl [mjul], hewn [hjun],
newer [pjuːtr(ə)], newt [njut] and [nut],
Newton [njutən] and [nutən] (See note on [j], p. 151.

k) ewe [u] from ME. eu [æU], as ewe [jʊ].

l) eau [u] from ME. eu [æU], as beauty [bjutɪ], etc.;
beau [boʊ] is a recent French loan-word.

m) eo [u] from ME. eu [æU], as feod [fjʊd] (beside
feud [fjʊd].)

n) leu [u] from ME. eu [æU] in some French loan-
words, as lieu [lu] and [lju], adieu [ədju] and
[ədju].

o) iew [u] from ME. eu [æU], as view [vjʊ], review
q) ioux [u], as Sioux [su].

[3(r)]

The NE phoneme [3(r)] has the following written forms and sources:

a) e (before r or r followed by a consonant) [3(r)]
is derived from ME. e [ε]; in the 16th Century
lengthened to [ε:].
In stressed syllables of Germanic and Romance
words, as her [h3(r)], deter [d3(r)], prefer
[pr3(r)], infer [inf3(r)], err [e3(r)], verse
[v3(r)dʒ], term [t3(r)m], fervent [f3(r)vənt],
concern [kəns3(r)n], clergy [kl3(r)dʒ], verdure
[v3(r)dʒ3(r)], terminus [t3(r)mən].

b) ea (before r or r followed by a consonant) [3(r)],
is derived from ME. e [ε]; in the 16th Century
lengthened to [ε:].
In stressed syllables of English and Romance words,
as earth [e3(r)θ], heard [h3(r)d], learn [l3(r)n],
yearn [y3(r)n], earnest [e3(r)nst], rehearse
[rıh3(r)s], research [rıs3(r)ʃ], pearl [p3(r)l],
early [e3(r)l].
Note: beard [bɔ(r)d] derives from ME. [eɹ] > NE. [iɹ]; ME. [eɹ] > NE. [a(r)]. Thus there were quantitative doublets.

c) ʌ (before r or r followed by a consonant) [a(r)] is derived from ME. ʌ [i].
In stressed syllables of Germanic and Romance words, as stir [stɔ(r)], fir [fɔ(r)], dirt [dɔ(r)t], chirp [tʃɔ(r)p], girl [gɔ(r)l], whirl [ʍɔ(r)l], firm [fɔ(r)m], first [fɔ(r)st], dirge [dɔ(r)dʒ], irksome [ɐ(r)ksɔm], circle [sɔ(r)kɔ:l], girdle [ɡɔ(r)dʒ], virtue [vɔ(r)tʃ], skirmish [skɔ(r)mʃ].

d) u (before r or r followed by a consonant)
[ɔ(r)] is derived from ME. ʌ [i], developing through ur [Ur] and ur [ʌ].
In stressed syllables of Germanic and Romance words, as burr [bɔ(r)], cur [kɔ(r)], turn [tɔ(r)n], hurt [hɔ(r)t], curb [kɔ(r)b], turf [tɔ(r)f], hurl [hɔ(r)l], burst [bɔ(r)st], church [tʃɔ(r)tʃ]; purpose [pɔ(r)pɔs], burden [bɔ(r)də], curtain [kɔ(r)tʊ], sturdy [stɔ(r)dʒ], purchase [pɔ(r)tʃəs], murmur [mɔ(r)mʊ(r)], urchin [ɔ(r)tʃən].

e) o (after w before r followed by a consonant)
[ɔ(r)], is derived from ME. ɔ [ɔ] after w before r followed by a consonant, developing as [U] in
the 17th Century, later as [ʌ], presently as [ɜː].

Word [wɜː(r)d], work [wɜː(r)k], worth [wɜː(r)θ],
worth [wɜː(r)t], worse [wɜː(r)s], worst [wɜː(r)st],
word [wɜː(r)m], worthy [wɜː(r)θi], worship
[wɜː(r)sɪp]; also attorney [æt3(r)ni].

f) olo [ɜː], as in colonel [kən3(r)nəl].

g) ou (before r followed by a consonant) [ɜː],
in some Romance words, as adjourn [ɔdʒɔn],
journal [dʒɔnəl], journey [dʒɔnɪ],
courteous [kərɪtəs], courteous [kərɪtəs],
scourge [skərɪdʒ].

[ʌ]
The NE. [ʌ] phoneme has the following written forms and sources:

a) u [ʌ] is derived from shortened, lowered and centralized ME. u [U].

1. In some words before all consonants except
r, rr, th, as cut [kʌt], cup [kʌp], tub [tʌb],
mug [mʌg], dust [dʌst], much [mʌk], pulp
[pʌlp], skull [skʌl], buzz [baʊz], gums [ɡʌmz],
thumb [θʌm], fund [faʊnd], fun [faʊn], hunt
[hʌnt], defunct [dɪfʌŋ(k)t], sung [sʌŋ],
sprung [sprʌŋ], lunch [lʌntʃ], plunge [plʌŋk].
1. **Pulse** [pabl(t)s], **adult** [ədəlt], **divulge** [daɪvəldʒ], **bulb** [bəlb], **sulf** [sɔlf], and in derivatives thereof.

2. In **dissyllabic** words of **Germanic** origin before consonant clusters, as **clumsy** [klʌmz], **crumble** [krambəl], **sultry** [sʌltri], **slumber** [slʌmbr(r)], **humbug** [hʌmbʌg], **Sunday** [ˈsʌndi], **dusty** [dʌsti], **sundry** [ˈsʌndri], **luncheon** [ˈlʌntʃən], **ugly** [ʌgli], **bundle** [bʌndl], **under** [ˈʌndə(r)], **hungry** [ˈhʌŋgri], **drunkard** [ˈdrʌŋkə(r)d].

3. Before all **doubled written consonants** in words of **Germanic** and **Romance** origin, as **button** [bʌtn], **bucket** [bʌkɪt], **muddle** [mʌdl], **succour** [sʌkə(r)], **bubble** [bəbəl], **sudden** [ˈsʌdən], **struggle** [strəɡəl], **suffer** [sʌfə(r)], **russet** [rʌsət], **puzzle** [ˈpʌzəl], **Prussian** [ˈpraʃən], **luscious** [ˈlʌʃəs], **sullen** [ˈsʌlən], **current** [ˈkærənt], **summon** [ˈsʌmən], **funnel** [ˈfʌnl], **hussif** [ˈhʌsɪf].

4. In **Romance** words before single or clustered written consonants, as **ducat** [dəkət], **usher** [əʃə(r)], **pumice** [ˈpʌmɪs], **punish** [ˈpʌniʃ], **duchess** [dəʃəs], **budget** [bədʒət]; **custom** [ˈkʌstəm], **subtle** [ˈsʌtəl], **reluctant** [rɪˈlʌktənt].
eruption [ɪrʌpʃən], structure [sstrəktʃə(r)], subject [səbˈdʒekt], bustle [bʌstl], duloet [ˈdʌliət], umpire [ʌmplər(ə)r], cumbrous [ˈkʌbrəs], triumphal [trʌmˈpɪml], junction [ˈdʒʌŋkʃən], uncle [ˈʌŋkl], illustrious [ɪˈlɪstreɪəs], luxury [ˈləkʃəri], subtlety [ˈsʌtlti], fecundity [ˈfɛkənti].

b) o [ɔ] is derived from ME. u [u].

1. Before v, as above [æbəv], love [lʌv], dove [dʌv], glove [ɡlʌv], shove [ʃʌv], cover [ˈkʌvə(r)], plover [ˈplʌvə(r)], govern [ˈɡʌvə(r)n], oven [ˈʌvn], covey [ˈkʌvi], covet [ˈkʌvit], sloven [ˈslʌvən]. Exceptions: hove [ˈhʌv], over [ˈəuvə(r)].

2. Before m, n, as come [kʌm], bomb [bʌm] Br., comfort [kʌmfort], compass [ˈkʌmpəs], pommel [ˈpʌməl], stomach [stʌmək]; son [sʌn], ton [tʌn], won [wʌn], one [wʌn], none [nʌn], honey [ˈhʌni], done [dʌn], front [frʌnt], money [ˈmʌni], among [əmʌn], Monday [ˈmʌndi], onion [ˈɒnɪn], wont [wʌnt], London [ˈlʌndən], monkey [ˈmʌŋkɪ], monk [ˈmʌŋk], constable [ˈkɒnstəbəl], tongue [tʌŋ].

3. Before th, as other [ʌðə(r)], mother [ˈmʌðə(r)], brother [ˈbrʌðə(r)], s-mother [sˈmʌðə(r)]; nothing [nʌθɪŋ], doth [dʌθ]. Exceptions: moth [mʌθ],
cloth [klpəθ], clothe [klove]; the vowel in cloth corresponds to a ME. o [ɔ], that in clothe to ME. [ɔ].

4. Before a few other consonants, as cost [dæst], dozen [dəzn], cozen [kəzn], color [kələ(r)], borough [bərə], thorough [θərə], worry [wərə], twopence [təpən(t)s]. Exception: borrow [bərə], [bərə] derives its vowel from OE. ɔ [ɔ].

1. Before gh [ʃ], [p], as rough [rʌf], tough [tʌf], enough [ɪnʌf], slough [slʌf], chough [tʃʌf], clough [klʌf], south [sʌf]; hiccough [hɪkʌf] or [hɪkəp].

2. Sporadically in young [jʌŋ], southern [sʌnðə(r)n].

5. In a few words of Romance origin, as couple [kəpəl], double [dəbl], trouble [trʌbl], cousin [kəzn], courage [kəriŋ], flourish [flərə], nourish [nərə], touch [tʌʃ], country [kəntəri].

d) ɔɔ [ɔ] is derived from ME. ɔ [ɔ], 16th Century [u], 17th Century [ɔ], as blood [blʌd], flood [flʌd] (but bloom [blʌm], foot [fʊt]).

e) ɔe [ɔ] is derived from ME. ɔ [ɔ], as does [dəz] (but toes [təʊz], does [dəʊz] and shoes [ʃuːz]).
[ə]

The NE. [ə] phoneme (?) has its origin in the shortening or unstressing of certain vowels or combinations of vowels in the second member of compound-words as a result of shifting stress, or in the unstressing of originally tonic syllables in Germanic and Romance words. The [ə] has the following written forms and sources:

a) a [ə] has the following sources:

1. From originally stressed ME. a [a], as:
   - crystal [krɪstəl], metal [mɛtl], coward [kaʊə(r)d], leopard [lɪpə(r)d], notary [nətəri], contrary [kɔntrəri] and [kɔntəri], vicar [vɪkə(r)], necessary [nɛsəsəri] and [nɛsəsəri].

2. From originally stressed ME. a [a], as real [rɪəl], general [dʒenərəl], principal [prɪncɪpəl], miracle [mɪrəkəl], charitable [tʃərɪtəbl], obstacle [ɔbstəkəl], senate [sənət] and [sənət], preface [prɛfəs] and [prɛfəs]; also after ce, ci, ge, as ocean [ˈɒʃən], special [ˈspɛʃəl], musician [ˈmjuːzɪʃən], pageant [ˈpeɪʒənt], vengeance [vɛŋdʒən(t)s]; also in pretonic syllables, as above [əbəv], alone [ələun], ado [ədəu], ago [əgoʊ], again.
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[əgən] and [əgein], accept [ək'sɛpt], agreeable [əgriˈebl]; also in the articles a [ə] and [əl], an [ən] and [ən]; in the preposition at [ət] and [ət].

b) ə [ə] has the following sources:

1. From originally stressed ME. e [e], as level [levəl], vessel [vəsəl], chapel [tʃəpəl], present [ˈprezent], beadle [ˈbidəl], mantle [ˈmæntəl] and [ˈmæntəl], bowels [ˈbaʊəlz], silence [ˈsaiəntəs]; also after ti, ci, sci, as patient [ˈpeɪʃənt], ancient [ˈeɪnʃənt], conscience [ˈkɒn(t)ʃən(t)s].

2. From originally stressed ME. e [ɛʔ], as forest [ˈfɔːrɪst] and [ˈfprəst], tempest [ˈtempəst] and [ˈtɛmpəst], cruel [kruːl], jewel [ˈdʒuːl], quarrel [ˈkwɔrəl], cattle [ˈkætl], chattel [tʃətəl] and [tʃətəl].

3. From originally stressed ME. e [ɛ], as matter [ˈmætə(r)], manner [ˈmænə(r)], river [ˈrɪvə(r)], dinner [ˈdɪnə(r)], butcher [ˈbʌtʃə(r)], supper [ˈsʌpə(r)], carpenter [ˈkærpəntə(r)], butler [ˈbʌltə(r)], banner [ˈbænə(r)]; also in quiet [ˈkwaiət].

c) ə [ə] has the following sources:

1. From originally stressed ME. e [ɛ], as record [ˈrɛkə(r)əd], concord [ˈkɔŋkə(r)əd] and [ˈkɔŋkə(r)əd],
conqueror [konkærə(r)], emperor [ɪmˈpærə(r)], effort [ɛfə(r)t], actor [ækˈtə(r)], method [ˈmeθəd], period [ˈpəriəd], idol [aɪˈdɔl], symbol [ˈsɪm bol], mirror [ˈmɪrə(r)], venom [ˈvɪnm], wisdom [ˈwɪzdm], abandon [əˈbændən], baron [ˈbærən], lion [ˈlaɪn].

2. Also after ti [ti], si [zi], ass [aːs], ache [tʃ], chi [tʃ], ti [tʃ], ge [dʒ], gi [dʒ], as action [əkˈʃən], nation [ˈneʃən], condition [ˈkəndəʃən], vision [ˈvaɪʒən], decision [dɪˈsɪʒən], mission [ˈmɪʃən], possession [pəˈzɪʃən], fashion [fəʃən], cushion [ˈkʌʃən], luncheon [ˈlʌntʃən], truncheon [trʌntʃən], stanchion [ˈstæntʃən], bastion [ˈbæstʃən], surgeon [ˈsɜːdʒən], dungeon [ˈdʌndʒən], religion [ˈrɪlənʒən].

3. In unstressed medial syllables, as memory [ˈmɛmərɪ], victory [ˈvɪktərɪ], history [ˈhɪstərɪ], ivory [aɪˈvərɪ], violet [ˈvaɪələt], violent [ˈvaɪələnt], recognize [rɪˈkæɡnaɪz].

d) u [ɔ] has the following sources:

From ME. u [ɔ], in unstressed syllables, as figure [ˈfɪgə(r)], feature [ˈfɪtʃə(r)], measure [ˈmiːʃə(r)], failure [ˈfeɪələ(r)], vellum [ˈvɛləm], autumn [əʊtəm], column [ˈkʌlm], fortune [ˈfɔtʃən]; also in unstressed medial syllables, as luxury [ˈlʌkʃərɪ], Salisbury [ˈsælɪsbərɪ].
fortunate [fɔ(r)tənət]; also in unstressed prefixes, as upon [əpən], success [səkss], surprise [sə(r)priːz].

e) ou [ə] has the following sources:
From ME. ou [u], in unstressed syllables, as jealous [dʒeləs], famous [feiməs], numerous [njuːmərəs], tumerous [tjumərəs], tuberous [tjubərəs], favor, favour [feivə(r)], honour, honor [ˈhɒnə(r)], labour, labor [ˈleɪbə(r)], valour, valor [ˈvælə(r)], colour, color [ˈkʌlə(r)], neighbor, neighbour [ˈneɪbə(r)]; also after te [tə], de, di [dɪ], ci, sci [ʃi], ri, se [sə], as courteous [kəʊtʃəs], righteous [ˈraɪtʃəs], hideous [ˈhaɪdəs] and [hɪdəs], odious [əˈdjuːs] and [əˈdjuːs], precious [ˈpreʃəs], gracious [ˈgreɪʃəs], contumacious [kəntəˈmeɪʃəs], conscious [ˈkɒnʃəs], religious [ˈrɪljəs], courageous [ˈkərədʒəs], glorious [ˈɡlɔːrəs], spurious [ˈspjʊriəs], injurious [ɪnˈdʒʊriəs]; also in Plymouth [ˈplɪməθ], Bournemouth [ˈbʊrnəməθ], Teignmouth [ˈtiːnməθ].

f) ai [ə] has the following sources:
From ME. ai [ɑɪ], unstressed, as captain [ˈkæptən], fountain [ˈfaʊntən] and [ˈfaʊntə], certain [sə(r)tən] and [sə(r)tən], villain [ˈvɪlən], chaplain [ˈtʃeɪplən], Britain [ˈbrɪtən] and [ˈbrɪtən].
mountain [maUntən] and [maUntə], boatswain [boUsən].

g) əə [ə], unstressed, as in cupboard [kəbə(r)d], waistcoat [wəskət].

h) ə [ə], unstressed before r, as in satyr [seitə(r)], zephyr [zeφə(r)], martyr [ma(r)ta(r)]; also in analysis [ənələsəs], paralysis [pərələsə].

i) əə [ə] in biblical names, Isaac [i:zək], Canaan [ke:nən], Balaam [be:ləm].

j) ə [ə], unstressed before r, as Yorkshire [jo(r)kə(r)], Devonshire [dəvənə(r)]; also in Jubilee [dəubəli].

k) ə [ə] finally and preconsonantal, especially by British, Eastern American and Southern American speakers, as care [kə(r)], here [hɪə(r)], more [mo(r)], poor [pʊə(r)], fire [faɪə(r)], our [əUr], beard [bɪə(r)d].

The Diphthongs

[aɪ]

The ME. [aɪ] phoneme has the following written forms and sources:

a) ɪ [aɪ] is derived from ME. ɪ [ɪ] which, since
the 16th Century has gone from ɪl [ɪl] to ɛi [ɛi] to ʌɪ [ʌɪ] to [aɪ].

1. Before a single consonant with following ɛ, as pipe [paɪp], wipe [waɪp], ripe [raɪp], bite [baɪt], white [waɪt], write [raɪt], pike [paɪk], dike [daɪk], gibe [dʒaɪb], side [saɪd], wife [waɪf], alive [əlaɪv], mine [maɪn], file [faɪl], tithe [taɪθ], grime [graɪm], wise [waɪz].

2. Before a single consonant with following le, el, al, re, er, or, om, en, on as idle [aɪdəl] and [aɪdəl], stifle [staɪfl], Bible [baɪbəl], libel [laɪbəl], final [faɪnəl] or [faɪnəl], bridal [braɪdəl] or [braɪdəl], rival [raɪvəl], mitre [maɪtraɪ(r)], fibre [faɪbrə(r)], spider [spaɪdə(r)], miser [maɪzə(r)], minor [maɪnə(r)], whilom [wɪləm], enliven [ənlaɪvən], iron [aɪrən] (phonetic metathesis).

3. Before single consonants in open syllables of dissyllabic and trisyllabic words of Romance origin, as climate [klɑɪmət], private [praɪvɪt], idol [aɪdəl], horizon [həraɪzən], lilac [laɪlək], crisis [kraɪsɪs], silence [saɪlənt], ideal [aɪdɪəl], refinery [rɪfænərɪ], piracy [paɪrəsɪ], binary [baɪnərɪ], irony [aɪrənɪ], advisory [ədvaɪzərɪ].
4. Before silent $g$ followed by $n$, as resign [rizaɪn], sign [saɪn], malign [mælaɪn].
5. Before silent $g$ followed by $l$, $c$, as islet [aɪlɪt], island [aɪlænd], viscount [vaɪkaʊnt].
6. Before final $mb$, $ld$, $nd$, as climb [klæm], child [tʃaɪld] wild [waɪld], mild [maɪld], find [faɪnd], kind [kaɪnd] wind [waɪnd], bind [baɪnd].
7. As exceptions before $st$, $nt$, $nth$, as Christ [kraɪst], pint [paɪnt], ninth [naɪnθ].
8. Finally in the pronoun $I$ [aɪ]; in a few foreign words, as alibi [əlaɪbi], termini [tɜ(r)mɪni], genii [dʒiˈnai]; and in the first part of a few compounds, as twilight [twaiˈlaɪt], Friday [fraɪd].
9. After $gu$ before single consonants followed by $e$, as guide [gaɪd], guise [gaɪz], beguile [bɪɡaɪl].
10. In pretonic syllables, as diameter [daɪəmaɪtə(r)], biography [baɪˈɒɡræfi], triumphal [traɪmfaɪl].
11. In posttonic syllables, as dolomite [dəlutəˈmaɪt], appetite [əˈpɪtɪt], suicide [suˈsaɪd], paradise [ˈparədaɪs], sacrifice [ˈsækrəfaɪs], advertise [əˈvaɪ(r)taɪz], exercise [eksə(r)zaɪz], merchandise [mə(r)taɪndaɪz].
realize [riləlaɪz], crocodile [krə'kɑːdəl], reconcile [rə'kɔnsaɪl], empire [ɪm'paɪə(r)].

12. From ME. ɪ [ɪ] before ɹ (silent since the 15th Century) as night [naɪt], night [maɪt], knight [naɪt], right [raɪt], sight [saɪt], fight [faɪt], bright [braɪt], blight [blaɪt], slight [slaɪt], plight [plɑːt], flight [flaɪt], fright [fraɪt], wright [raɪt], light [laɪt], Wight [waɪt], high [haɪ], sigh [saɪ], night [naɪ], delight [dɪlaɪt].

13. From ME. e [ɛ] before r which in the 15th Century went to [ɪ], in a few Romance words, as briar [braɪə(r)], friar [fraɪə(r)], entire [ɪntəɪə(r)], quire [kwaɪə(r)], enquire [ɛn'kwɔɪə(r)], inquire [ɪn'kwɔɪə(r)], inquiry [ɪn'kwɔɪə(r)], require [rɪ'kwɔɪə(r)], acquire [ɔkˈwaɪə(r)], umpire [اɪmˈpaɪə(r)] (OFr. non per [non pɛʁ]).

b) ɪə [aɪ] is derived from ME. ɪ [ɪ], as die [daɪ], lie [laɪ], tie [taɪ], hie [haɪ], vie [vaɪ], pie [paɪ], fie [faɪ].

c) ə [a] is derived from ME. ɪ [ɪ] in some words and is used in Greek loan-words.

1. Finally, as by [baɪ], my [maɪ], spy [speɪ], sky [skɑɪ], fly [flaɪ], cry [kraɪ], dry [draɪ], defy [defaɪ], deny [daɪnəɪ], apply [æplaɪ].
July [dʒʊlaɪ].

2. After gu (u is an unspoken orthographical sign), as guy [gaɪ].

3. In posttonic syllables, as justify [dʒaɪstɪfaɪ], multiply [mʌltɪplaɪ], occupy [əˈkʌpɪ], prophesy [prəfəsaɪ], lullaby [ˈlʌləbæɪ], beautify [ˈbjuːtɪfaɪ].

4. Before -ing endings, as denying ['dɛɪnɪŋ], flying [ˈflaɪŋ], dying ['dɑːɪŋ], lying ['laɪŋ], drying [ˈdraɪŋ], spying [ˈspaɪŋ].

5. Occasionally in Germanic and Romance words, as style [stɑɪl], scythe [satz], gyves [ˈdʒaɪvz], tyre [taɪ(r)], beside tire [tæaɪ(r)], tyro [ˈtaɪro], byre [baɪ(r)], tryst [ˈtraɪst], Clyde [ˈklaɪd].

6. In Greek loan-words, before a vowel, as dryad [draɪd], hyacinth [haɪˈsɪnθ], hyades [haɪˈdɛiz], myrove [maɪrəʊ]; before a consonant followed by e, le as type [taɪp], chyme [tʃaɪm], pyre [paɪ(r)], lyre [laɪ(r)], cycle [sækəl]; in open syllables, as hyphen [haɪfən], hymen [haɪmən], cypress [saɪˈpreɪs], hybrid [haɪˈbrɪd], asylum [əˈsaɪləm], papyrus [pəˈpeɪrəs], tyrant [taɪrənt]; in pretonic syllables, as psychology [saɪkəlɒdʒɪ], hypotenuse [haɪˈpɒtənjuːz], hydrophobia [haɪˈdɹəfəˈbiə], cyclopedia [saɪkləˈpiːdɪə], hypercritic
[haipə(r)kritis]; posttonically, as prototype [proʊtəstəp].

d) ye [ai] is derived from ME. 1 [i].

Finally, as dye [dai], lye [lai], rye [rai], sty [stai] beside sty [stai], bye [bai],
good-bye [gudbai] and [gədbə].

e) ei [ai] is derived from ME. 1 [i] through [ei].

1. Before silent gh, as heigh [hai], heigh-ho [hai-ho].

2. Before ght [t], as height [hait], heighten [haitn], sleight [slait] (cf. eight [eit], weight [weit]).

3. Before th, as either [aiθə(r)] and [iθə(r)],
   neither [haiθə(r)] and [iθə(r)].

4. Sporadically in loan-words, as eider [aiðə(r)], gneiss [nais], Pleiads [plaɪdz] and [pliɔdz].

f) eye [ai] is derived from ME. 1 [i] through [ei],
   as eye [ai], eyelet [ailt].

g) ey [ai] (same as above), as eyeas [aiəs], eyot [aɪət], keyser [gaɪsə(r)].

h) a[kaiəro] sporadically, as aisle [ail]; Cairo [kairo], Kaiser [kaɪzə(r)] (loan-words).

i) ay [ai] sporadically, as ay [ai] and [ei], ayah [aɪə] (loan-word).
j) *aye* [ai] sporadically, as *aye* [ai] and [ei].
k) *uy* [ai], as in *buy* [bai] (OE. *bygeθ* [byjθ] > *buyeth* [baθθ]).
l) *oi* [ai], as in *choir* [kwaι(r)] (ME. *quere* [kwεr(r)], OFr. *quer* [kwεr], L. *chorum* [koθum]).
m) *oy* [ai], as in *coyote* [kaιOUT] and [kaιOUT] (loan-word).

*[au]*

The ME. phoneme *[au]* has the following written forms and sources:

a) *ou* [au] is derived from ME. *ou* [u].

1. As in *doubt* [daUt], *scout* [skaut], *out* [auT], *loud* [laUD], *proud* [praUD], *south* [saUθ], *mouth* [maUθ], *house* [haUς], *ouat* [auST], *trousers* [traUζ(r)z], *pouch* [paUT], *couch* [kauT]; *fount* [faUnt], *pound* [paUnd], *wound* [waUnd], *foundry* [faUndri], *council* [kaUnsOL], *ounce* [aUn(t)s], *lounge* [laUnd].

2. Before *r*, as *our*, *hour* [auθ(r)], *flower* [flaUθ(r)], *devour* [diFaUθ(r)], *sour* [saUθ(r)], *hourt* [haUθ(r)T] and *huθ(r)T*.

3. Before silent *gh*, as *bough* [baU], *plough* [plaU], *slough* [slaU] and [alu], *doughty* [daUti]; *drought* [draU].
4. Before ́, ́n (exceptions), as foul [faU], noun [naUn], but renown [rInaUn] (both etymologically identical).

5. Finally in the pronoun thou [θau].

b) ow [au], a variant in spelling, derived from ME. ow [u].

1. Finally, as how [haU], cow [kaU], now [naU], bow [baU], row [vaU], sow [saU], row [raU], allow [laU], endow [ndaU]; bow [baU] (OE. bugan [bugan]), but bow [boU] (OE. boga [boga]).

2. Medially before a vowel, a bowel [baU], towel [taU], vowel [vaU], power [paU], power [kaU], dower [daU], lower [laU], flower [flaU], coward [kaU], prowess [praU], allowed [laU], tower [taU], but tow [toU] (OE. toarian [tojæn]).

3. Before ́, ́n, as owl [au], howl [haU], fowl [faU]; town [taU], down [daU], brow [braU], drown [draU], crown [kraU], frown [fraU], clown [klaU], renown [rInaU].

4. Sometimes before d, se [z], as crowd [kraU], powder [paU], rowdy [raU]; browse [braU], drowse [draU], drowsy [draU], frowzy [fraU].
c) əʊ [əʊ], as in caoutchouc [kɑʊt/ʌk] and [kʌt/ʌk] (loan-word); after ɔi, as giaour [dʒ(1)əʊ(r)] (loan-word).

d) əʊ [əʊ] in some Germanic loan-words, as saur [səʊ(r)], kraut [kraʊt], sauerkraut [səʊ(r)kraʊt].

[ɔɪ]

The NE. phoneme [ɔɪ] has the following written forms and sources:

a) ɔi [ɔɪ] is derived from ME. ɔi [ɔɪ].
   As boil [bɔɪl], void [vɔɪd], avoid [əvəʊd],
   voice [vɔɪs], choice [tʃɔɪs], rejoice [rɪdʒɔɪs],
   moist [mɔɪst], noise [nɔɪz], join [dʒɔɪn],
   coin [kɔɪn], point [pɔɪnt], anoint [ənɔɪnt],
   foible [fɔɪbəl], cloister [klɔɪstə(r)], toilet
   poison [pɔɪzən].

b) ɔv [ɔɪ], as toy [tɔɪ], loy [dʒɔɪ], boy [bɔɪ],
   enjoy [ɪnʤɔɪ], destroy [dɪstrɔɪ], employ
   [ɪmplɔɪ]; medially before a vowel, as loyal
   [lɔɪəl], royal [rɔɪəl], joyous [dʒɔɪəs]; also in
   oyster [ɔɪstə(r)], hoyden [hɔɪdən].

c) ʌv [ʌɪ], as buoy [bɔɪ], buoyant [bɔɪənt],
   buoyancy [bɔɪənsi].
C. The Consonants

[P]

The NE. [p] phoneme has the following written forms and sources:

a) $\text{p}, \text{pp}$ [p] have remained unchanged from ME. P [P].
   Initially, medially and finally, as peace [pis],
   put [pUt], pound [paUnd], speak [spik], spring [spr\'nj], open [ou\'pen], pupil [pjup\'l]; lisp [lisp], help [help], lamp [lamp], hemp [hemp],
   ape [eIp], pipe [paIp], dupe [djup], deep [dip],
   soap [soIp], gossip [g\'psIp]; apple [Ap\'l], puppy [pAp\'l], puppet [pAp\'t], cripple [kr\'p\'l], appeal [Ap\'l], steppe [step].

b) ph [p] sometimes in Greek words, as diphthong
   [d\'ip\'h\'n] and [d\'if\'h\'n], naphtha [n\'ap\'h\'a] and [n\'af\'h\'a], diphtheria [d\'ip\'h\'ir\'i\'a] and [d\'if\'h\'ir\'i\'a].

c) $\text{gh}$ [p] sporadically, as hiccough and hiccup
   [h\'ik\'Ap] (hiccough is not a composition with
cough [k\'Ap], but is an imitation by analogy).

Note: Written (alphabetic) P is silent initially
in some Greek words before t, s, n, as ptomaine
[tome\'n], Ptolomy [tpl\'m\'i\'], psalm [sam], pseudo-
nym [sud\'n\'m], psychology [sa\'k\'pl\'d\'z\'i].
pneumonia [njuˈməʊnɪə], pneumatic [njuˈmətɪk];
medially before b, ph [f], as cupboard
[kʌbə(r)d], raspberry [rəzˈbærɪ], Campbell
[kæmbəl], Saxophone [sæˈfɒn], sapphire [ˈsæfə(r)];
between m and t, d, as empty [ˈɛmti], tempt
[ˈtɛmt], attempt [ˈatempt], consumption
[kənˈsəmʃən], comptroller [ˈkɒntrəˈlə(r)],
Hampden [hæmˈdən]; before final t, as receipt
[ˈrɪsit] (earlier also deceit [dɪˈsaɪt]: ME.
deciet [dəˈsaɪt]), Deptford [dɛtʃə(r)d];
also in the Fr. loan-word corpse [kɔrs] and
[kɔrs(r)z], but corpse [kɔrs(r)ps]; also pshaw
[ʃəˈpɔʊ] (an interjection).

[b]

The NE. [b] phoneme has the following written forms and
sources:

a) b, bb [b] has mostly remained unchanged from
ME. b [b].

1. Initially, medially, and finally, as bid
[bɪd], book [bʊk], black [blæk], bound
[baʊnd]; combat [kʌmbət], ruby [rʌbɪ], album
[ˈælbəm], able [əˈblə], feeble [fiˈblə]; abbot
[ˈæbət], ribbon [ˈrɪbən], stubble [ˈstʌbəl],
bubble [ˈbʌbl], nibble [ˈnɪbl]; globe [ˈɡloʊb],
club [ˈklʌb], rib [rɪb], web [wɜb], ebb [ɛb].
2. Epenthetical ɒ [b] is spoken after m in a few words where it appeared in Middle English or Old French, as shambles [ˈʃæmbəlz] (OE. scamol [ˈskæməl]), bramble [ˈbræmbəl] (OE. bremel [ˈbreməl]), thimble [ˈθɪmbəl] (OE. āmül [ˈəməl]), slumber [ˈslʌmə(r)] (OE. āmurrān [ˈəmərən]), nimble [ˈniməl] (OE. numol [ˈnʌməl]), ember [ˈemə(r)] (OE. āmerrē [ˈəmərə]), chamber [ˈtʃæmə(r)], member [ˈmæmbə(r)], number [ˈnʌmbə(r)], but numerous [ˈnjuːrəs], assemble [əˈsɪməl], tremble [ˈtræməl], humble [ˈhʌməl].

3. Sporadically ME. ɒ [b] became NE. ɒ [b] as cobweb [ˈkɒbweb] (ME. coppeweb [ˈkʌp(ə)web(ə)]), lobster [ˈlɒbsta(r)] (OE. loppestre [ˈlɒpestə]), pebble [ˈpɛbəl] (OE. papolstan [ˈpɑːpəlstan]).

Note: The written (alphabetic) ɒ is silent before syllabic final t, the, as debt [dɛt], doubt [dəut], subtle [ˈsʌtl] (these three by analogy); finally after m, as lamb [lʌm], climb [klæm], comb [kʌm], bomb [bʌm] and [bʌm], dumb [dʌm], thumb [θʌm], plumb [plaʊm], tomb [tʌm], womb [wʌm]; rhomb [rʌm]; initially before d, as bdellium [ˌdɛdəliəm]; the ɒ's in limb [lʌm] and crumb [krʌm] are not historical, but analogical.
The NE. \([t]\) phoneme has the following written forms and sources:

a) \(t\) \([t]\) has remained mostly unchanged from ME. \(t\) \([t]\).

Initially, medially, and finally, as take \([teik]\), time \([taim]\), too \([tu]\), two \([tu]\), to \([tu, tu, t\)\], true \([tru]\); strand \([strænd]\), metal \([matl]\), city \([siti]\), eighty \([eiti]\), altar \([alt\(a\)(r)]\), plenty \([plënti]\), nasty \([nastl]\) (Sw. naskug, naskig [naskig, naskig]), tapestry \([tæpestri]\) (an assimilation; cf. Fr. tapisserie \([tapi̯s̃ʁi]\) ); gift \([gift]\), salt \([solt]\), hate \([heit]\), peasant \([pezent]\) and \([pezøt]\), stalwart \([stəlwa(r)\(t\)]\) (OE. stalwierpe \([stəlwaɪrpe]\), ME. stəlworpe \([stəlwarə(ə)]\) ), bat \([bæt]\) (Dan. bakke \([bæke]\) ).

Note: A frequent practice among many American speakers is to weaken phonetically intervocalic \(t\)'s by partially voicing them. When this is done the \(t\) in a word like metal sounds like the \(d\) in medal, later on sounds like laid'er on, etc. The practice is especially frequent when \(t\) is followed by \(r\) or \(l\) in the next syllable, but not so frequent if \(n\) follows in the next syllable, as mutton \([matn]\), lighten \([laɪt\(n\)]\), etc.
b) **tt** [t] from ME. t [t] doubled after short vowels.

1. Medially, as *better* [bitə(r)], *bitter* [bitə(r)], *latter* [lætə(r)], *written* [ritə], *committee* [kəmətə], *matter* [mætə(r)], *button* [bʌtn], *mutton* [mʌtn], *butter* [bʌtə(r)], *bottle* [bɔtl], *battle* [bætl], *kettle* [kɛtl], *little* [lɪtl].

2. Finally, as *butt* [bʌt], *mutt* [mʌt], *cigarette* [ˈsɪgərɪt], *etiquette* [etɪˈkɛt], *gazette* [ˈɡæzət].

c) **-ed** [t] as a sign of the preterite and preterite participle forms of verbs, after voiceless consonants (except t), as *asked* [əskt], *masked* [mæskt], *looked* [lʊkt], *booked* [bʊkt], *hoped* [həupt], *kissed* [kɪst], *missed* [mɪst], *wished* [wɪʃt], *finished* [fɪniʃt], *published* [ˈpʌblɪʃt], *fixed* [fɪkst], *mixed* [mɪkst]; *used* [jʊst] and [jʌzd].

d) **th** [t] in some Greek and Latin loan-words, as *Thomas* [θəməs], *Thames* [θɛmz] (L. Tamesis [tɛmɪsɛs]), *thyme* [θaɪm], *Esther* [ɛstə(r)], *asthma* [æstma] and [æzmə], *isthmus* [ɪstməs] and [ɪsməs], *Anthony* [æntəni]; also *phthalmia* [ˈθɪmlɪə]; in *Chatham* [tʃætəm] the t and h belong to different syllables.

**Note:** 1. In **eighth** [eɪtθ] th represents [θθ].
Note: 2. The written (alphabetic) t is silent between s, f, and l, m, n, as bustle [bʌstl], castle [kæs], hustle [haʊstl], wrestle [rɛstl], whistle [ˈwɪstl], thistle [ˈθɪstl], mistletoe [ˈmɪstltoʊ], listen [ˈlɪsn], fasten [faʊstn], glisten [ˈɡlɪsn], hasten [ˈheɪstn], chasten [ˈtʃeɪstn], moisten [ˈmʌɪstn], chestnut [ˈtʃɛstnət] and [ˈtʃɛstnət]; often [ɔf(ə)n] and [ɔftən], soften [ˈspf(ə)n]; Christmas [ˈkrɪsməz], westminster [ˈwɛstmɪnsta(r)], postmaster [ˈpəʊstməstə(r)] (these words sometimes contain an imploded t); also in boatswain [ˈbəʊstən], waistcoat [ˈwɔːstkət], exactly (coll.) [ˈɛkstrəli], mortgage [mɔrgə(r)ˈɡɑrdʒ], bankruptcy (coll.) [ˈbæŋkrʌŋktəri], Matthew [ˈmæθəjuː]; frequently in these expressions: I don't know [aɪˈdəʊnəʊ] and [aɪˈdəʊnəʊ], I didn't know [aɪˈdɪdəʊnəʊ], etc.; in some modern French loan-words, as eclat [eˈklɑː], bouquet [ˈbʊkeɪ] and [bouˈkeɪ], billet-doux [bɪˈlɪdœ].

Note: 3. A phonetic [t] is present in the affricate [tʃ], as in chew [tʃu], such [sʌtʃ], inchéd [ɪntʃɛd], etc.
The NE. [d̠] phoneme has the following written forms and sources:

a) [d̠] remained practically unchanged from ME.

1. Initially, medially, and finally, as day [deɪ], deed [did], death [dθ], dream [drim], degree [dʒri], Sunday [sændi], wisdom [wizdəm], bridal [braɪdl], medley [mɛdli], gold [ɡould], lead [lid], cloud [klɔːd], method [mɛθd], riddle [rɪdəl], goddess [gəʊdɪs], sudden [sʌdn], eddy [ɛdi], oddity [ɔdɪti], ridden [raɪdn], giddy [ɡɪdi], ladder [ˈlædər], saddle [sædəl], add [æd], odd [ɔd]. Cf. note a) under [t], p. 177.

Note: Medial dd [d̠] is occasionally found to be derived from OE. or ME. þ [θ], as rudder [rʌðə(r)] (OE. rɔðər [ɹʌðəθ]), fiddle [fɪdəl] (OE. fɪpela [fɪpələ]), swaddle [swɔːdəl] (ME. swəˈbend swəθ(ə)ˈbɛnd), an [swɔːdən] (ME. swəˈbend swəθ(ə)ˈbɛnd).

2. In swaːbənband [swaːbənˈbænd].

3. In preterite and preterite participle -ed endings after t, d, as hated [heɪtəd], mated
[meətɪd], addicted [ədɪktɪd], elected
[əlɛktɪd], potted [pɒtɪd], noted [nəʊtɪd];
ended [ɛndɪd], winded [wɪndɪd], founded
[faʊndɪd], rounded [raʊndɪd], sounded
[saʊndɪd], wounded [wʌndɪd].

4. In preterite and preterite participle -ed
endings after voiced consonants (other than
*d* and after vowels, as robbed [rɒbdɪ], begged
[bɪgdɪ], loved [lʌvdɪ], (cf. beloved [ˈblɪvɪd])
filled [fɪldɪ], judged [dʒʌdʒɪd], claimed
[klɛɪmd], sinned [sɪnd], played [pleɪd],
obeyed [obeɪd], studied [stʌdɪd]; said [sɛd],
fled [flɪd], bled [blɛd], died [dɛɪd], paid
[pɛɪd], stayed [streɪd], drowned [draʊndɪ],
flied [flaɪd].

5. Sporadically from ME. ⟨θ⟩ as Bedlam
[ˈbedləm] (Bethlehem), spider [ˈspʌdə(r)] (ME.
spɪər [ˈspɪə(r)]).

6. Occasional replacement of ⟨t⟩ by ⟨d⟩, as card
[ka(r)d] (Fr. carte [kaʁt], L. charta [kaɾta])
jeopardy [dʒəˈpɛ(r)di] (OFr. jeu parti
[dʒuˈpaʁtij], diamond [daiəmɔnd] (ME. dia-
maund [daiˈmaʊnd], OFr. diamaunt [daiˈmaʊnt]).

7. Through paragoge to a preceding ⟨n⟩, as hind
[haɪnd] (ME. hine [hin (ə)]), bound [baʊnd;
(ME. boun [bʊn], ON. buinn [buɪn]), round
[raUnd] (ME. rounen [fúnən]), round [pa Und] (OE. punian [puni n], ME. rounen [fúnən]), lend [land] (OE. lenan [lə:nən], ME. lenen [lə: nən]).

Note: The paragogic ME. d in NE. sound, expound, jaundice, etc. has disappeared once again in NE. summon [sumun] (ME. somounden [səmʊndən]), ribbon [ribon] (ME. riband [rɪbænd]) beside riband [rɪbən(d)].

8. Derived from OE. [f], as burden [bɜ(r)dən] (OE. byrpen [bɪrən]), afford [afə(r)d] (OE. geforþian [ɡəfɔɹðiən]), could [kʊd] (OE. cupe [kʊpə]), murder [mʊ(r)də(r)] (OE. morþor [moːðər]).

9. A [d] is pronounced in the proper noun Rotherhithe [rəθprɪθ].

Note: The written (alphabetic) d is silent in Wednesday [wɛnzdə], handsome [hænsəm], handkerchief [hæŋkə(r)tʃɛf], windsor [wɪnzdɔ(r)], Dnieper [nɪpə(r)], Dniester [nɪstə(r)].

10. Derived from an older medial rr [r], as paddock [pædək] (OE. pearrog [pærəg]) beside park [pa(r)k].

b) ddh [d] in some Sanskrit loan-words, as Buddha [bʊdːə], Buddhism [bʊdɪzəm], Siddhārtha [sɪdə(r)θʊə].
Note: In the parent language the h's in these words were (Or are) strongly aspirated, as

_**Buddha**_[buddha].

c) _dh_ [d] in some Hindi loan-words, as _dhak_ [dak], _dhow_ [dau], _dhurrie, dhurry_ [dari], _dharma_ [dā(r)na].

Note: 1. In the parent language the h's in these words are strongly aspirated, as[chak], etc.

Note: 2. A phonetic [d] is present in the affricate [dʒ], as in _gem_ [dʒem], _edge_ [edʒ].

[k]

The NE. [k] phoneme has the following written forms and sources:

a) _k_ [k] has remained unchanged from ME. k [k].
   Initially, medially, and finally, as _kettle_ [ketl], _key_ [ki], _sky_ [skai], _skin_ [skin],
   _token_ [toʊkən], _ankle_ [ˈæŋkəl], _tankard_ [tæŋkə(r)d], _skull_ [skul], beside _scull_ [skul],
   _oakum_ [oukəm]; _task_ [tæsk], _desk_ [desk], _risk_ [rɪsk]; _milk_ [milk], _elk_ [elk], _bulk_ [bulk],
   _silk_ [silk], _folk_ [foulk], _vollk_ [volk], _stark_ [stɑ(r)k], _clerk_ [kl3(r)k]; _vok_ [vouk], _duke_ [dju:k],
   _speak_ [spik], _seek_ [sik], _oak_ [ouk]; _vak_ [vak].
Note: Initially before *n* the letter *k* is silent, as *knee [ni]*, *know [noU]*, *knight [nait]*, *knead [nid]*; often in *asked [xst]* (dial.).

b) **ck** [k] from ME. **kk** [k].

1. Medially, in words of Germanic and Romance (rare) origin after a short vowel, as *fickle [fikl]*, *sickle [skl]*, *wicked [wikid]*, *lucky [laksi]*, *chicken [chikin]*, *acknowledge [aknolidj]*; *package [pakidj]*, *jackal [djakal]*, *jacket [djakit]*, *bucket [bakit]*, *ticket [titkit]*, *lackey [laksi]*.

2. Finally, in words of Germanic and Romance origin after a short vowel, as *buck [bak]*, *back [bak]*, *black [blak]*, *rock [rok]*, *cock [kok]*, *neck [nek]*, *quick [kwik]*, *thick [thik]*, *flock [flak]*, *sack [sak]*, *snack [snak]*; *attack [atk]*, *hammock [hakmok]*.

Note: The digraph **ck** is assimilated in *blackguard [blakgr(r)d]*.

c) **c** [k] has remained unchanged from ME. **c** [k].

1. Initially and medially, before *a*, *o*, *u*, *l*, *r*, as *can [kan]*, *call [kal]*, *cold [kould]*, *cook [kuk]*, *cull [kal]* (ME. *cullen [kulan]*, *to kill*), *cue [kju]*, *clean [klin]*, *close [kloUs]*
and [kloʊz], creep [krip], crown [kraʊn],
scale [skɛl], local [ˈlʌkəl], scold
[skould], falcon [ˈfəkən], circus [sə(r)kəs],
biscuit [ˈbɪskɪt]; miracle [ˈmɪrəkəl], cyclone
[ˈsaɪkləʊn], acre [ˈeɪkə(r)], acrid [əˈkrɪd].

2. Medially and finally in the digraph ot, as
active [ˈæktɪv], actress [əˈktrɪs], doctor
[ˈdɑktə(r)], victim [ˈvɪktəm], select [ˈsɛлект],
fact [fækt], afflict [əˈfɪlkt], subject
[ˈsəbdʒɪkt], object [ˈɒbdʒɪkt], distinct
[ˈdɪstɪŋkt], defunct [ˈdɪfʌŋkt].

3. Finally, after a short vowel in some words
of Greek and Romance origin, as music [ˈmjuːzɪk],
public [ˈpʌblɪk], pacific [ˈpæsɪfɪk], almanac
[ˈælmənæk], dramatic [ˈdramətɪk], zodiac
[ˈzoʊdiək], enclitic [ɪnklɪtɪk], physic [fɪzɪk];
also in arc [a(r)k], talc [ˈtælk], picnic
[ˈpɪknɪk], zinc [ˈzɪŋk], kul de sac [kʌl ə sæk].

Note: Initially, before n, t, z, in some
Greek and Russian words, the letter c is
silent, as cneus [nus], onemial [nɪmɪəl],
ctesias [tɪˈsiəs], ctenoid [tɪnəʊɪd], cteno-
phore [tɛnəʊfɔr(ə)], czar [za(ɹ)], czarina
[zɑrɪnə]. Also, medially between s and l,
in muscle [ˈmʌsəl], corpuscle [ˈkɔrpuːs(ə)rəsəl],
arbusole [a(r)basol]; before t in indict
[indaɪt], victuals [vɪktəlz] and [vɪstəlz].

d) ʊə [k] from ME. ʊ [k].
Medially after short vowels, before a, o, u, as
occasion [əkˈseɪʃən], tobacco [təbəko], accord
[əkˈkoʊ(r)d], Morocco [məˈroʊko], accuse [əkJuz],
succor [sʌkə(r)], account [əˈkaʊnt].

e) ʊh [k] is from the transliterated Greek Χ [Χ],
and other loan-words.

1. In Greek words, as chaos [keɪəs], character
[kærɪktə(r)], Christ [kraɪst], Christian
[kraɪstʃən], scheme [skim], school [skul],
schedule [skəˈdjuːl] and [ˈsɛdʒəl] Br., architect [ə(k)əˈtɛkt], archangel [a(r)kənˈdʒel],
echo [ˈɛkoʊ], stomach [stəˈmɑːk], epoch [ˈepək],
mechanic [məˈkænɪk], distich [ˈdɪstɪk], trystich
[ˈtrɪstɪk], conch [kɒŋk], monarch [məˈnɒr(r)k].

2. In Hebrew words, as Enoch [ɪnək], Michael
[ˈmækəl], Pentateuch [pɛntəˈtjuːk].

Note: The written (alphabetic) ʊh is silent
in drachm [ˈdræm], schism [ˈsɪzəm], fuchsia
[ˈfjuːʃə], yacht [jɑːt].

f) ʊh [k] medially in Greek words, as Bacchus
[ˈbæksəs], bacchanal [ˈbækənal].

g) ʊh [k] finally, as lough [lɒk] Irish, hough
[hk] (OE. hoh [hoX]), shough [jv[k]  
( etymology unknown).

h) kh [k] in some Persian and Hindi words, as khan [kan], khedive [kediv]; lakh [lak], khaki [kaki] and [kaki].

i) qu [k] in some Fr. loan-words, as quay [k]},
coquette [koket], opaque [opeik], croquet [kroket], bouquet [buket], masquerade [maskared], picque [pik], unique [junik], critique [kritik], grotesque [grotesk].

[kw]

The NE. compound phoneme [kw] has the following written forms and sources:

a) qu [kw] from ME. cu [kw].

1. Initially in Germanic and Romance words,
as queen [kwj], quick [kwk], quality [kwlit], quaint [kwint], question [kwist], quiver [kwivr], quantity [kwntit], quarrel [kwrel], quire [kwir], quit [kwit], quite [kwait], quiet [kwait].

2. Medially in Germanic and Romance words, as bequeath [bkwit], bequest [bkwest], squire [skwir], squirrel [skwor], squib [skwib],
squid [skwi:d], equal [ikwæl], equality [ikwælit], frequent [frɪkwənt], conquest [kɔŋkwəst], tranquil [træŋkwæl], vanquish [væŋkwɪʃ], consequent [kɔnsəkwənt], subsequent [səbseqwənt], liquid [lɪkwɪd], require [rɪkwæː(r)].

b) cu [kw] from ME. cu [kw].
Medially, as acquaint [əkweɪnt], acquire [əkwairə(r)], acquit [əkwɪt], acquerelle [əkwərel].

c) cu [kw], from OFr. cu [kw], appears in cuish [kwɪʃ], cuirass [kwɪrəs].

d) cho [kw], as in choir [kwaɪə(r)] (ME. quere [kwɛr(e)], L. chorum [koːrum]).

e) kw [kw], as in awkward [ɔkwəd(r)d].

[g]
The NE. [g] phoneme has the following written forms and sources:

a) g, gs [g] remained practically unchanged from ME. g [g].
Initially, medially, and finally in both Germanic and Romance words, as gay [gæɪ], game [gæm],
gall [gɔl], gallows [gɔləʊz], good [gʊd], gum [gʌm], glue [glu], bloom [bluːm], green [grɪn],
grip [grip], grow [grow], gristle [gristle],
gel [gel], goose [goose], gaw [gaw], give
[give], gift [gift], gibbon [gibbon], giddy
[giddy], begin [begin], girdle [girdle],
degree [degree], engage [engage], longer
[longer], hunger [hunger], finger
[finger], bugle [bugle], England [England],
Negro [Negro], fragment [fragment], magnet
[magnet], signal [signal], beg [beg], leg [leg],
dig [dig], fog [fog], rug [rug], snug [snug],
beggar [beggar], bigger [bigger], niggard
[niggard], nigger [nigger] (Am. coll.),
dagger [dagger], foggy [foggy], nugget [nugget],
egg [egg], egg [egg].

Note: Written (alphabetic)  is silent initially
before  in gnaw [gnaw], gnat [gnat], gnash [gnash],
gnome [gnome], gnu [gnu]; in Greek words before
final  as phlegm [phlegm], paradigm [paradigm],
diaphragm [diaphragm]; in Romance words before
final  as reign [reign], foreign [foreign],
feign [feign], sign [sign], campaign [campaign],
sovereign [sovereign], benign [benign]; finally
after [v], as king [king], sing [sing], bring
[bring], long [long]; also in singer [singer],
singing [singing], bringer [bringer], bringing
b) gh [g] from ME. [g].
Initially and medially, as ghost [goUst], ghastly [gxstli], gherkin [g3(r)k5n]; aghast [gxxt], burgher [b3(r)g3(r)].

Note: Written (alphabetic) gh is silent before
1. Initially before e, i, y, a, as guess [ges], guest [gest], guilt [gilt], gull [gild],
guide [gai'd], guise [gaiz], beguile [bi'gai1], guy [gai], guard [ga(r)d], guardian [ga(r)d3n].
2. Medially before e, i, as beleaguer [bi'leeg3(r)], roguish [rougis].
3. Finally before e in French loan-words, as

league [lig], plague [pleɪɡ], vague [væɡ],
fatigue [fætɪɡ], rogue [ruːɡ], intrigue
[intrɪɡ], fugue [ʃjug]; catalogue [kætəlɒɡ],
dialogue [daɪəˈloʊɡ].

Note: Written (alphabetic) gu(e) is silent in tongue [tʌŋ], langue [laŋ].

d) ckɡ [ɡ] in blackguard [blækˈɡɑrd] (an assimilation).

[ɡw]

The NE. compound phoneme [ɡw] has the following written forms and sources:

a) gu [ɡw] from ME. gu [ɡw].

Medially, as language [ˈlæŋɡwɪdʒ], lingual
[lɪŋɡwɔl], anguish [ˈæŋɡwɪʃ], distinguish
[ˈdɪstɪŋɡwɪʃ].

b) ɡw [ɡw] in some Welsh nouns, as Gwen [ɡwɛn], Gwendolyn [ɡwɛndəˈlʌn].

[m]

The NE. phoneme [m] has the following written forms and sources:

a) ɱ, mm [m] from ME. m [m].

Initially, medially, and finally, as men [mɛn],
make [meik], my [mai], much [mʌtʃ], smith [smiθ], lemon [’lɛmən], woman [’wʊman], timber [’tɪmbə(r)], name [neɪm], time [taɪm], brim [brɪm], lamb [læm], limb [lim], comb [kʌm], am [əm], came [keɪm], room [rʊm], bosom [bʊzəm], beam [bɪm], damage [’dæmɪdʒ]; after short vowels, as common [’kɔmən], commerce [’kɔmə(r)s], hammer [’hæmə(r)], grammar [’græmə(r)], hammock [’hæmək], summer [’sʌmə(r)], summit [’sʌmɪt]; mamma [’mæmə] and [’mʌmə].

Note: 1. An m arose by assimilation, as

hamper [’hæmpə(r)] (OFR. hanaper [’hɑnəp], OE. hunep [’hʌnəp], akimbo [’akɪmbo] (ME. in kenebowe [ɪn kɪnəbou(ə)], lime-tree [laɪm-tri] (ME. lindetree [lɪndətri]), flotsam [’flɔtsəm] (OFR. flotaizon [’flɔtaizɔn]), jetsam [’dʒɛtsəm] (OFR. getaison [’dʒɛtaizɔn]), hemp [hɛmp] (OE. hænep [’hænəp], brimstone [’brɪmstoʊn] (ON. brenni-steini [bɹɛni-steini]), umpire [’ʌmpə(r)] (OFR. nonper [’nɔnpɛʁ]), comfort [’kʌmfoʊt] (OFR. confort [’konfoʊt]), ransom [’rænsəm] (OFR. raençon [’rænson]), pilgrim [’pɪlɡrɪm] (L. peregrinum [pɪrəgrɪnʊm]).

2. An n is heard as m, in Banff [’bænəf], Pontefract [’pʌnɪfrækt].
Note: 3. Written (alphabetic) initial \( n \)
is silent in mnemonics \( [\text{nǐmənıkəs}] \) (of Greek origin).

\[ n \]

The NE. phoneme \( [n] \) has the following written forms and sources:

a) \( n, \text{nn} [n] \) from ME. \( n \) \( [n] \).


Note: 1. An \( n \) arose from \( m \) before \( t \) as ant \( [ænt] \) (OE. \( əmɛtə [əˌmɛtə] \)), Hants \( [hænts] \) (Hampshire from ME. \( ʰæm(p)ətʃər(ə) \)).
Note: 2. An ə arose from improper division between article or possessive pronoun and a following substantive beginning with a vowel, as newt [njut] (OE. efete [ævətə]), nickname [nɪkˈnɪm] (ME. ekenam [Ik(ə)nam(ə)]), nugget [nʌɡɪt] (ME. ingot [ɪŋɡət]).

3. A paragogic ə appeared before medial ge [dʒ] in some Romance words, as passenger [ˈpæsəndʒə] (Fr. passager [pəsəʒ], harbingers [ˈhæ(r)bɛŋdʒə] (ME. herbejourn [hɛrˈbɛdʒɔːr]), popinjay [ˈpɒpɪnʤi] (ME. papejay [ˈpæpəʤi]), messenger [ˈmesəndʒə] (OFr. messager [mɛsadjə]), porringers [ˈpɔrɪndʒə] from porridge [ˈpɔrɪdʒ] (Fr. potage [ˈpɔtɑʒ]).

4. Written (alphabetic) final ə is silent after l, m, as kiln [kɪln], damn [dæm] (L. damnare [dæmnər]; hymn [hɪm], solemn [sələm], column [kələm], autumn [ɔtəm], condemn [kəndəm].

[ə]

The NE. phoneme [ə] has the following written forms and sources:

a) ə [ə] from ME. ə [ŋ].
1. Medially before k, ch [k], ċh [k], ɔ [k],
   gu [kw], ʃu [ʃ], ɡ̊th, ʃ, silent ʃ, ɡ̊u [gw],
   x [ks] or [ʃ], x [z], gu (silent),
   g (silent), as wrinkle [rʌŋkə], drunken
   [drʌŋkən]; anchor [ˈæŋkə(r)]; handkerchief
   [ˈhæŋkə(r)tf], distinction [diˈstɪŋkʃən],
   junction [dʒʌŋkʃən]; tranquil [træŋkwəl],
   conquest [ˈkɒŋkwəst], conquer [ˈkɒŋkə(r)],
   conqueror [ˈkɒŋkə(r)], lengthen [lŋ(k)θən],
   strengthen [strɛŋ(k)θən], finger [ˈfɪŋə(r)],
   hunger [ˈhʌŋɡə(r)], longer [lŋɡə(r)], stronger
   [strɔŋɡə(r)], longest [ˈlʌŋɡɪst], strongest
   [ˈstrɔŋɡɪst], anger [ˈæŋɡə(r)], nightingale
   [ˈnaɪtɪŋɡeɪl], England [ˈɛŋglənd]; singing
   [ˈsɪŋɪŋ], kingdom [ˈkɪndəm], hanging [ˈhæŋɡɪŋ];
   language [ˈləŋgwɪdʒ], anguish [ˈæŋɡwɪʃ],
   distinguish [ˈdɪstɪŋgwɪʃ]; anxious [ˈæŋkʃəs]
   or [ˈæŋkʃəs]; anxiety [ˈæŋkʒəltɪ] or
   [ˈæŋkʒəltɪ]; tonguing [ˈtʌŋɪŋ], tonguer
   [ˈtʌŋə(r)], haranguing [ˈhærəŋɡɪŋ], haranguer
   [ˈhærəŋɡə(r)]; gingham [ˈɡɪŋɡəm], Bingham [ˈbɪŋɡəm].

2. Finally before k, ch [k], ɔ [k], ɔ [ks],
   g (silent), gue (silent), as drink [drɪŋk],
   sunk [sʌŋk], tank [tæŋk]; conch [ˈkɒŋk];
   distinct [ˈdiʃtɪŋkt], instinct [ɪnˈstɪŋkt];
   lynx [ˈlɪŋks] (found in ME, the next three
not), sphinx [sfh\nks], larynx [l\r\nks], syrinx [s\r\nks]; sing [sg\n], singing [sg\n\n], long [l\n\n], longing [l\n\n\n], nothing [n\'\n\n\n], morning [m\n\n\n\n\n\n]; tongue [t\n\n], harangue [h\r\n\n].

[1]

The NE. phoneme [l] has the following written forms and sources:

a) l, ll [1] from ME. l [1].

Initially, medially, and finally, as love [l\n\n], little [l\l\n], lamb [l\m], play [ple\n], plenty [pl\nt\n], clean [klin], glam [kl\m], glove [gl\v], blood [bl\d], sleep [slip], flee [fli], salt [s\l], elk [elk], seal [s\l], steal [stil], build [b\l], guilty [g\l\l], ale [e\l], sale [s\l], wall [we\l], gold [goul\d], old [ould], fulfill [ful\l], double [d\b\l], bugle [bju\l], title [ta\l], whole [hou\l], fowl [foul], kiln [k\l]; doubled after a short vowel, as gallop [g\l\p], ballad [b\l\d], valley [v\l\l], cellar [s\l\r\n], swallow [s\p\l\n], fellow [f\l\o], village [v\l\d\s], dollar [d\l\d\r\n], college [k\l\l\d\s], folly [f\l\l], gullen [s\l\n], shall [s\l\l], tell [t\l\l], ill [i\l], doll [d\l], skull [sk\l], full
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Note: 1. There was a sporadic change from 3 to 1, as purple [p3(r)pəl], (ME. pourpre [puːrprə], laurel [lərəl] (ME. lorer [loːrə], Fr. laurier [loʁje]).

2. There was a sporadic change from n to 1, as flannel [flænəl] and [flænəl] (W. gwlanen [gwlənən]).

3. In some words of Romance origin 1 is paragogic between a back (dark) vowel and following t, d, ch [t/s], as fault [fɔːlt], assault [əsɔːlt], vault [vɔːlt], altar [ɔːltə(r)], moulت [mɔːlt], scald [skɔːld], cauldron [kɔːldən], baldric [bɔːldrɪk], soldier [səʊldə(r)], herald [hɛrəld], ribald [rɪbɔːld], emerald [ɛmərəld], scaffold [sɔːkfɔːld], falchion [fɔːltʃən] and [fɔːltʃən]; could [kʊd] probably has the 1 by analogy with should, would.

4. In posttonic syllables after OFr. -pe, -be, -cue the 1 frequently developed, as participle [pa(r)tɪsˈpɪl] (Fr. participe [paʁtisip], manceiple [mɑ̃sˈpɛl], syllable [sɪˈləʊbəl], chronicle [kroʊnˈkəl].

5. Written (alphabetic) 1 is silent before
The /r/ phoneme has the following written forms and sources:

a) /r, rr /r/ from ME. /r/.

1. Initially, as read [rid], reign [rein], room [rum], write [rait], wring [rɪŋ]; after a consonant, as tree [triː], stream [strɪm], proof [pruːf], great [greɪt], thrill [θɹɪl], brown [braʊn], fray [freɪ], shrill [ʃɹɪl].

2. Medially before a vowel, as very [ˈveri], parish [ˈpærɪʃ], merit [ˈmərɪt], spirit [ˈspɪrɪt], courage [ˈkærɪdʒ], bury [ˈbɜːri], carol [ˈkærəl], central [ˈsɛntrəl], Negro [ˈnɪgroʊ], extract [ˈɛkstrɪkstreɪt], kindred [ˈkɪndrɪd]
pilgrim [pilgrim], destroy [dɪstrəʊ]; also doubled medially (intervocally) after a short vowel, as hurry [hʌri], sorry [səri], carry [kærɪ] and [kəri], arrow [æroʊ], quarrel [kwɔrl], barren [bærən] and [bərən], berry [beri], cherry [tʃəri], merry [meri], error [əra(r)], carriage [kærɪdʒ] and [kəridʒ], barrel [bærəl], barrack [bæræk], mirror [mɪrə(r)]; stary [stəri].

3. Finally before a word beginning with a vowel (linking r), as sear it [səət], far away [færəwei], hear of [həroʊ], tear off [tɛərəf], there are [θɛərə]; in some compounds, as moreover [mɔrəʊvə(r)], thereof [θɛərəf], thereat [θɛərət].

Note: 1. Sporadically r appears by progressive incontiguous assimilation in a few words, as bridegroom [braɪdgrəʊm] (OE. brýd-guma), cartridge [kɑ(r)trɪdʒ] (Fr. cartouche [kɑʁtuʃ], partridge [pɑ(r)trɪdʒ] (Fr. perdrix [pɛʁdʁi], L. perdicem [pɛrdikɛm]).

2. Some speakers do not pronounce preconsonantal and final r preceded by some vowel or diphthong in the same syllable, sometimes stressed, sometimes not. When the r disappears the preceding vowel may
become slightly diphthongized and the
preceding diphthong becomes triphthong-
ized. Examples of disappearance of pre-
consonantal r are: hardy [haːdi], hearty
[haːti]; warm [wɔːm], storm [stɔːm],
ordain [ɔːdeɪn]; poverty [pɔvəti]; bairn
[beən], oar [ər]; careful [keəfəl],
tearful [tiərfəl]; beard [bɛəd]. Final r
disappears if the next word in the same
phrase or sentence does not begin with a
vowel: war [wɔː], for [fɔː], dear [dɛə],
hair [hɛə-hə], poor [pʊə]; order
[ɔːdə-rə], farther, father [fɑːðə], acre
[eɪkə]; bizarre [bɪzər]; fire [faɪə], flyer
[flaɪə], hour, our [aʊə]; far [faː] but
far away [fɑːrəwei], acre of [eɪkərəv], etc.
Cf. [ə(r)], p. 155 and a) 3. under [r],
p. 199.

Note: 3. In a few words r is silent, as
worsted [wʊstɪd], Worcester [wʊstə(r)];
Mrs. [mɪsɪz-mɪsəz], [mɪz- mɪz]; [mɪz]
(coll.), beside mistress [mɪstrɪs-mɪstrɪs].

b) rh [r] in some Greek and Latin words, as rhythm
[rɪðəm], rhyme [raɪm] (by analogy), rhinoceros
[rɪnəsərəs], rhododendron [rododendron].
rheumatism [rumətizəm]; Rhine [raɪn], Rhone [roʊn].

c) ρρh [r] in some Greek words, as qatarrh [keta(r)], myrrh [m3(r)], pyorrhea [paɪərə], diarrhea [daiərə]; Pyrrhic [pɪrɪk], Pyrrhus [pɪərəs].

[f]

The NE. phoneme [f] has the following written forms and sources:

a) f [f] from ME. f [f].

Initially, medially, and finally, as food [fʊd], foot [fʊt], free [fri], flee [fli], folk [fɔʊk], defeat [dɪfɪt], after [ɑftrə(r)], soften [səfɪn], fifty [fɪfti], awful [ɔwəl]; doubled after short vowels, as suffer [sʌfə(r)], baffle [bæfəl], differ [dɪfə(r)], traffic [træfɪk], offer [ɪfə(r)], office [ɔfɪs], coffee [ˈkɔfɪ]; waif [weɪf], life [laɪf], strife [straɪf], knife [naɪf], relief [rɪlɪf], leaf [lɪf], beef [bɪf], roof [rʊf]; doubled after short vowels, as cuff [kʌf], off [ɔf], stiff [stɪf], muff [mʌf], staff [stæf], sheriff [ˈʃɛrɪf], tariff [ˈtɛrɪf].

Note: 1. Sporadically ME. u [v] changed to f, as belief [bɪlɪf] (ME. bileue [bɪlə(ə)]),
probably by analogy with chief, grief, brief, etc.), sheriff [ʃeɪɹ] (ME.
shirereue [ʃeɪɹeɪr(ə)] and shireue [ʃeɪɹ(ə)]).

Note: 2. Written (alphabetic) ſ is silent in halfpenny [hal fpni] Br.


_c_ gh [f] from ME. ʃ, gh [X].

1. Finally, as laugh [lɑf], rough [rɑf],
cough [kɑf], tough [tɑf], enough [ɪnɑf],
trough [trɑf], slough [sɑf], chough [tʃɑf].

2. Before t, as laughter [lɑft(ə)r], draught
[draʊft].

Note: Written gh is silent in plough [plaʊ],
though [θoʊ], through [θru], bough [baʊ],
dough [dou].

d) ph [f] comes from Greek and other loan-words.
In all positions, as philosopher [fɪləˈsoʊfə(r)],
photography [fətəˈɡrəfi], philander [fɪləˈændə(r)],
phonetics [fəˈnetɪks], graph [ɡrɑf], zephyr
[ˈzɛfə(r)], cipher [ˈsaɪfə(r)] (Arabic), physician
[fiˈzɪʃən] (OFr.), phrase [frep], prophet
[prəˈfɪt] (French), seraph [saˈrəf] (Hebrew),
triumph [trɪˈæmf] (Latin).
Note: 1. Written *ph* is silent before *th* in Greek words, as *phthisis* [ˈfaɪsɪs], *phthisic* [ˈfaɪsɪk], *apophthegm* [ˌæpəˈθɛm].

2. In such words as *shepherd* [ˈʃɛpə(r)əd], *Clapham* [ˈklæpəm], the *p* and *h* belong to different syllables.

e) *ph* [f] is of Greek origin in such words, as *Sappho* [ˈsæphəʊ], *sapphire* [ˈsæfaɪə(r)].

[v]

The ME. phoneme [v] has the following written forms and sources:


1. Initially in Romance words, as *vain* [veɪn], *very* [ˈvɛrɪ], *venom* [ˈvɛnəm], *vice* [ˈvaɪs], *voice* [ˈvɔɪs], *virtue* [ˈvɜːtʃuː].

2. Initially in Germanic words (rare), as *vixen* [ˈvɪksən] (formerly *fixen* [ˈfɪksən]), *van* [ˈvæn], *vane* [ˈveɪn], *vat* [væt].

3. Medially and finally in both Germanic and Romance words, as *envy* [ˈenvi], *proverb* [ˈprəʊvə(r)b], *prevail* [ˈprɪvəl], *savage* [ˈsævɪdʒ], *naval* [ˈnævəl], *raven* [ˈrɛvən], *devil* [ˈdævəl], *seven* [ˈsɛvən], *never* [ˈnəvə(r)], *grievous* [ˈɡriːvəs], *river* [ˈrɪvə(r)]; *save* [ˈseɪv], *stave*
[steiv], weave [wiv], eve [iv], twelve
[twelv], have [hav], give [giv], live [l'iv],
love [lav], dove [daiv] beside dove [doUV],
a dialectal preterite of dived [daivd], glove
[glav]; Slav [slav], rev [rev], colloquial
for revolution [revolvw'j] or revolve
[rivolv].

b) vv [v] in savvy [sæv] (from navigator, a road-
worker. Br.), savvy [saev] (slang term for know,
from Sp. sabe [sa'be] ).

c) f [v] in of [av], [əv].

d) ph [v] in Stephen [stivn], nephew [nēvju] and
[ŋfju].

[Θ]

The NE. phoneme [Θ] has the following written forms and
sources:

a) th [Θ] from ME. th [Θ].

1. Initially and finally, as think [θθθθk],
thin [θn], thumb [θm], thimble [θmbəl],
thorn [θɔs(r)n], through [θru], thunder
[θandz(r)], thick [θθθθk]; north [nɔs(r)θ],
moth [mθθ], kith [θθθ], wrath [rθθ] and
[rθθ], mirth [mθ(r)θ], tooth [tuθ], youth
[θuθ], path [pθθ], heath [hθθ], death [dθθ].
2. In some Greek loan-words initially and medially, as *thesis* [θisis], *theology* [θiələdʒi], *pathos* [peθəs], *sympathy* [simpəθi], *method* [meθəd], *cathedral* [kæθidrəl], *apotheosis* [apəθəkəs], *panther* [pænθə(ə)r], *orthodontist* [ɔθə(r)θɔdəntist], *Catholic* [kæθəlik].

Note: 1. From ME. *th* [θ] after a short vowel or after a consonant, as *smith* [smiθ], *cloth* [klɔθ] (sing.), *death* [dæθ], *pitch* [piθ], *flour* [fraθ], *twentieth* [twentiθθ]; *sixth* [siksθ], *ninth* [nain(t)θ], *earth* [əθ(ə)r], *fourth* [fɔθ(r)θ], *fifth* [fifth].

2. From ME. *t* [t] in a few words, as *lath* [læθ] sing. (ME. *late* [lat(ə)]), *theme* [θim] (ME. *teme* [tem(ə)]), *throne* [θroun] (ME. *trone* [trən(ə)]), *author* [əθə(r)] (L. *auctor* [auktər]).

b) *gh* [θ] in proper nouns only, as *Keighley* [kiθli].

Note: 1. In some words *th* [θ] is heard as [tθ], *eighth* [eθtθ].

2. In such words as *Chatham* [tʃæθəm], *t* and *h* belong to different syllables.
The NE. phoneme [ɔ] has the following written forms and sources:

a) th [ɔ] from ME. th [θ].

1. Intervocally, as feather [ˈfɛθə(r)], weather [ˈweðə(r)], heathen [ˈhiθən], neither [ˈniðə(r)] and [ˈneɪðə(r)], either [ˈɪðə(r)] and [ˈaɪðə(r)], fathom [ˈfæθəm]; also after a long vowel and preceding a final silent e or before the plural-ending s, as breathe [briθ], bathe [bæθ], seethe [siθ], blithe [blaθ], acythe [əθ], soothe [suθ], clothe [kloʊθ]; also smooth [smuθ] (ME. smope [ˈsməp(ə)]) ; paths [pɑθz], oaths [əθz], mouths [maʊθz], clothes [kloʊθz] and [kloʊθz].

2. Initially in pronominals, adverbs, conjunctions, etc., from ME. th [θ], as the [θi], [θi], [θi], thee [θi], thou [θau], thy [θai], they [θei], them [θem], them [θam], those [θouz], this [θiz], these [θiz]; thus [θiz], than [θən], then [θən]; thither [θɪðə(r)] and [θɪðə(r)] (See note below), thence [θən(ə)] and [θən(ə)] (See note below), though [θau], although [əθəu]; with [wɪθ], [wɪθ].

Note: A NE. [ɔ] arose from ME. d [ð].
appearing since the beginning of the 16th Century as [s] between a vowel and the derivative-syllable -er, as father [fəðə(r)], mother [mʌðə(r)], gather [gəðə(r)], together [təɡəðə(r)], tether [tiθə(r)], wither [wiðə(r)], whither [wɪðə(r)], hither [hɪðə(r)], thither [θɪðə(r)] and [θəθə(r)].

The NE. phoneme [s] has the following written forms and sources:

a) [s] from NE. s [s].

1. Initially, as save [seɪv], soon [sʊn], sat see [si], spell [spel], study [stʌdi], skin [skɪn], school [skul], sweet [swɪt], snow [snəʊ], snake [sneɪk], sleep [slɪp], small [smɔːl], sword [sɔː(r)d].

2. Medially, as the first element in the second part of compounds, as sessick [sesɪk], parasol [pərəsəʊ], inside [ɪnˈsaɪd], myself [maɪˈsaɪf], besieere [biˈsɪdʒər], episode [ˈepəʊd], also [ˈɔlsəʊ], landscape [ˈlændski:p], handsome [ˈhænməʊ], absent [ˈæbsənt], absorb [əbˈsɔː(r)b], absurd [əbˈsɜːd], obsession [əbˈʃeʃən].

3. After the prefixes de-, re-, pre-, in some
words, as destroy [dɪstrəʊi], despise
[dɪspɑɪz], research [rɪsɛə(r)tf], resource
[rɪsə(r)ss], prescribe [prɪskraɪb], but
presume [prɪzjuːm] and [prɪzəm].

4. In other prefixes before a consonant, before
_u_ [ju], and before an unstressed vowel, as
mischief [mɪstʃɛf], discover [dɪskɑːvə(r)],
misfortune [mɪsfɔː(r)tfən], distinguish
[dɪstɪŋgwɪʃ]; disunion [dɪsjuːnʃn], misuse
[mɪsjuːz] or [mɪsjuːz]; proselyte [prɒsəlɪt],
disobey [dɪsəbɛɪ], prosody [prɒsədi].

5. Medially before the voiceless consonants _p_,
_t_, _c_ [k] _k_, as whisper (Mɪspɔ(r)), gospel
[gɔsəl]; sister [sɪstə(r)], master [mɑstə(r)],
question [kwəstʃn], escape [ɪskɛp], rescue
[riskjuː], basket [bɑskɪt], masker [mɑskə(r)],
whiskey [Mɪski].

6. Before the silent voiceless consonants _t_, _ç_,
followed by _m_, _n_, _l_, as Christmas [krɪsməs],
fasten [fæsn], listen [lɪsn], hasten [heɪsn],
castle [kɑsəl], whistle [Mɪsəl], apostle
[əpɔsəl]; muscle [mʌsəl], corpuscle
[kɔrpʊsəl], arbuscle [ɔ(r)bʌsəl].

7. After tongue-point and voiceless consonants,
as balaam [bəleɪm], answer [ənswə(r)], curtsy
[kɜɔ(r)tsi], gypsy [dʒɪpsɪ], dromey [dɾəmə].
**person** [pərˈsʌn], **counsel** [ˈkɔnˌsəl], **tinsel** [ˈtɪnˌsəl].

**Note:** An *s* is derived from OFr. *as*, *c* [s],

between vowels, as **sausage** [ˈsɔsɪdʒ], **basin** [ˈbeɪsn], **mason** [ˈmeɪsn], **palisade** [ˈpæləˌseɪd], **obeisance** [ˌəbəˈsən(t)ə]; also in **nuisance** [ˈnjuːsən(t)ə], **crusade** [ˈkrʌsəd].

3. In the derivative-syllables **-sy**, **-sis**, **-give**, **-sity**, **-sorry**, **-ison**, as **poesy** [ˈpɔsi], **jealousy** [dʒəˈlɔsə], **minstrelsy** [ˈmɪnstrələsi], **basis** [ˈbeɪsɪs], **analysis** [əˈnæləsə], **decisive** [dɪˈsɪsv], **conclusive** [ˌkənkləˈsiv], **curiosity** [ˈkjʊərəsəti], **generosity** [dʒəˈnerəsəti], **illu­sory** [ˈɪljʊərəri] and [ɪljʊərəri], **garrison** [ˈgarəsən], **comparison** [kəmˈpærəsən].

9. Finally in words ending in the voiceless combinations **sp**, **ps(e)**, **st(e)**, **sk**, **squ(e)**, as **rasp** [ræsp], **lisp** [lɪsp] (OE. *wliap* [ˈwliːsp]), **wisp** [wɪsp]; **lapse** [læps], **klimps** [ˈklɪmps]; **mast** [mæst], **cast** [kæst]; **caste** [kæst], **haute** [hɔːst], **waste** [weɪst]; **task** [tæsk], **ask** [æsk]; **arabesque** [əˈreɪbəsk], **casque** [kæsk], **grotesque** [ɡroʊˈteɪsk].

10. In Romance words with **-se** ending, from Fr.

**-see**, **-z**, **-ce** [s], as **chase** [tʃeɪz], **purchase** [pɜʃ(ə)r], **grease** [ɡriːz] and [ɡrɪz], **lease**
[lis], release [r̩lis], cease [sis], decease [deis], increase [inkris], promise [prəməs], premise [premɪs], rehearse [r̩hɔ(r)s], nurse [nɔ(r)s]; but phrase [frem] (Fr. phrase [fʁaz]).

11. In Germanic and Romance words with historical -se [s] ending, after stressed vowels and diphthongs, ME. -s [s] or L. -s(us) [s(us)], as goose [gus], geese [gis], house [haus], louse [laus], horse [hɔɔ(r)s], hoarse [hɔɔ(r)s] and [hau(r)s], coarse [kɔɔ(r)s] and [kou(r)s], curse [kɔ(r)s], case [keis], base [beis], precise [prɪsaɪs], close [kloʊs](Adj.), abuse [əboʊs], morose [məroʊs], purse [pɔ(r)s]; tense [tɛn(t)s], dense [dɛn(t)s], expanse [ɪkspæn(t)s]; vase [veɪs-vaɪs].

12. In words where s belongs to the stem-syllable, or where the final syllable with s is unaccented, as yes [jɛs], gas [ɡæs], this [ðɪs], us [ʌs], alas [ɔləs]; circus [sɪˈrɪs], Thomas [ˈtɒməs], genius [dʒɪˈnjuːs], jealous [dʒɪˈlɔʊs], basis [ˈbeɪsɪs], chaos [ˈkeɪəs]; exceptions: James [dʒeɪmz], Charles [tʃə(r)lz], series [sɪərɪz], crises [kraɪsɪz] (In these words an accented vowel or voiced consonant in the same syllable precedes the s).
13. In inflectional endings after voiceless consonants, as cats [kæts], bets [bɛts], ships [ʃips], roofs [rufs], deaths [dɛθs], gates [geɪts], books [bʊks], asks [ɑks], makes [meɪks], cliffs [klɪfs], months [mʌnts], wife's [waɪfs], cat's [kæts], cats' [kæts].

Note: Written (alphabetic) s is silent in isle [aɪl], island [aɪlænd], aisle [aɪl], lisle [laɪl], Carlisle [ka(r)lai], Viscount [vaɪkaʊnt]; corps [kɔ(r)z] and [kɔ(r)z], rendez-vous [ʁɑνdəˈvu].

b) as [ə] from ME. a [a].

1. Intervocally after a short vowel, as assemble [əˈsəmbəl], assay [əˈsɛi], essay [ɛˈsɛi], lesson [lɛsn], messenger [mɛsənˈdə(r)], gossip [gɒsɪp] (ME. god sib [ɡɔd sɪb]), blossom [ˈblɒsəm], necessary [ˈnɛsəsəri], classic [ˈklæsɪk], passive [ˈpəsɪv], renaissance [rəˈnɛsəns(t)ə].

2. Finally, after short and unstressed vowels, as dress [dres], glass [glæs], cross [krɔs], mass [mæs], class [klɑs], kiss [kɪs], bliss [blɪs], arose [ɔrəs], lose [laʊs]; goddess [ɡəˈdɪs], hopeless [ˈhauplɪs], madness [ˈmædnis], gladness [ˈglædnis], happiness [ˈhɑpənɪs].
e) a [s] from ME. s [s].

1. Finally in Germanic words, as ice [ai s],
dice [da i s], lice [la i s], mice [ma i s],
bodice [bod i s], penny [pen i (t)s], twice
[twa i s], thrice [θra i s], since [sin i (t)s],
thence [θin i (t)s] and [θin i (t)s], fleece
[fli s].

2. Initially in Romance words before front (e,i)
vowels, as city [si ti], circle (s3(r)k disillusion,
cycle [sa k i l], cease [sis], certain
[s3(r)tp], cigar [si ga(r)].

3. Medially in Romance words before front (e,i)
vowels, as December [di sgembo(r)], proceed
[prosid], deceive [dis i v], ancestor [a i nscest(r)],
atrocity [atrositi], lucid [lusid], license
[la i sanz], facile [fa s i l], necessity
[m i sisiti], mercy [m3(r)si], fancy [fam si],
princess [prins i s] and [prins i s].

4. Finally in Romance words before front vowels (e,i),
nice [na i s], vice [va i s], face [fe i s], voice
[v o i s], juice [dys i s], dance [dan i (t)s], justice
[dysasti], service [s3(r)vis], pierce
[p i o(r)s], induce [ind i jus], silence [sail an i (t)s],
pronounce [pronaUn i (t)s], prince [prin i (t)s],
ounce [aUn i (t)s], palace [πa lis], urice [pra i s],
sacrifice [ɔkr i fas].
d) \textit{sc} \ ([s]) from the Greek or Latin.

1. Initially and stressed before front vowels (\textit{e}, \textit{i}) in a few Romance words, as \textit{scene} \ ([sa\textsc{in}]), \textit{science} \ ([sa\textsc{ai\textsc{n}(t)s}]), \textit{scent} \ ([sa\textsc{ent}]) (a false spelling for \textit{sent}), \textit{scissors} \ ([sa\textsc{iz}(r)z]), \textit{sceptre} \ ([sa\textsc{pt}(r)]); \textit{descend} \ ([di\textsc{sn}d]), \textit{descent} \ ([di\textsc{sn}t]); \textit{scythe} \ ([sa\textsc{ith}]) (a Germanic word).

2. Occasionally in a few Latin loan-words stressed medially and finally, as \textit{incandescent} \ ([in\textsc{k}nd\textsc{is}n(t)s]), \textit{renascence} \ ([re\textsc{nis}n(t)s]), \textit{reminiscence} \ ([re\textsc{mi}n\textsc{is}n(t)s]); \textit{acquiesce} \ ([ak\textsc{wis}s]), \textit{reminisce} \ ([re\textsc{mon}is]).

\begin{itemize}
\item [.] \textit{sch} \ ([s]) in the Greek word \textit{schism} \ ([sa\textsc{iz}m]).
\end{itemize}

\textbf{[ks]}

The NE. compound phoneme \textit{[ks]} has the following written forms and sources:

\begin{itemize}
\item [.] \textit{x} \ ([ks]) from the Greek, Latin, and ME.
\end{itemize}

1. In the prefix \textit{ex-} \ ([ks]) or \textit{[ks]} before a consonant or before an unstressed vowel, as \textit{extend} \ ([ks\textsc{t}nd]), \textit{expect} \ ([ks\textsc{p}ckt]), \textit{exclaim} \ ([ks\textsc{k}l\textsc{m}]), \textit{expense} \ ([ks\textsc{pa}n(t)s]), \textit{excuse} \ ([ks\textsc{k}juz]) or \textit{[ksk}jus]; \textit{exercise} \ ([ks\textsc{e}(r)s\textsc{a}z]), \textit{execute} \ ([ks\textsc{k}jut]), \textit{exile} \ ([ks\textsc{ail}]); before silent \textit{h} preceding an unstressed vowel, as
exhibition [iksˈbɪʃən] but exhibit [ɪɡˈzɪbit]; also axmen [æksˈmæn], Axminster [ˈæksmɪnətə(r)].

2. Medially after a stressed vowel, as axle [æksˈleɪ], oxen [ˈɒksən], Saxon [ˈsæksən], vixen [ˈvɪksən], proxy [ˈprɒksi], proxy [ˈprɒksi], mixture [ˈmɪkstʃə(r)], fixture [ˈfɪkstʃə(r)], extra [ˈekstrə], klaxon [ˈklæksən].

3. Finally, as fox [fɒks], sex [sɛks], six [sɪks], mix [mɪks], ax [æks], flax [flæks], phlox [flɒks], box [bɒks], vex [vɛks], index [ɪndɪks], minx [mɪŋks], lynx [lɪŋks], Styx [stɪks], wax [wɛks], tax [tæks].

b) xe [kɛ] in Latin loan-words as except [ɪksˈempt], excellent [ɪksələnt], excell [ɪksəl], excellence [ɪksələnt(ə)s], excise [ɪksəs].

c) cc [kɛ] medially and from the Latin, as accept [ɪksˈempt] and [ɪksˈempt], accent [ækˈsent], accede [ækˈsid] and [ækˈsid], accident [ækˈsedənt]; succeed [səˈksid], success [səˈksəs], succinct [səˈskɪŋkt].

d) cc [kɛ] in tocsin [tɔksɪn] or [təksɪn].

[z]

The NE. phoneme [z] has the following written forms and sources:
a) $z \ [z]$ from ME. $s \ [z]$. 

1. Medially and finally in Germanic and Romance words, after stressed vowels and voiced consonants, as *lizard* [lizə(r)d], *frozen* [frəʊzən], *dozen* [dəʊzn], *hazy* [heɪzi], *hazard* [həzə(r)d], *horizon* [həraɪzən], *weazel* [wɪzəl]; *frenzy* [frɪnzi], *influenza* [ɪnflənsə], *stanza* [stənˈzaː]; *graze* [ɡreɪz], *maze* [meɪz], *size* [saɪz], *seize* [sɪz], *prize* [praɪz], *realize* [riələz], *sneeze* [snɪz], *freeze* [frɪz], *frieze* [frɪz], *gauze* [ɡɔːz], *civilize* [səˈvɪlaiəz], *ooze* [ʌʊz], *baptize* [bæptaiəz], *topaz* [ˈtoʊpəz], *bronze* [ˈbrɒnz].

2. Initially in Greek and a few other loanwords, as *zoo* [zuː], *zoology* [ˈzɔʊlədʒi], *zygote* [zaɪˈɡɑːt], *zeal* [ˈziːl], *zealous* [ˈzɪloʊs], *zone* [ˈzoʊn], *zeephyr* [ˈzɛfə(r)], *zero* [ˈziroʊ], *zither* [ˈziðə(r)], *zinc* [ˈzɪŋk], *zenith* [ˈzenɪθ]; in some proper nouns, as *Zella* [ˈzɪlə].

b) $zz \ [z]$ from ME. $s \ [z]$. 

1. Medially, after short vowels, as *puzzle* [ˈpæzl], *muzzle* [ˈmʌzl], *dazzle* [ˈdæzl], *dizzy* [ˈdɪzi], *buzzard* [ˈbʌzə(r)d], *blizzard* [ˈblɪzdə(r)d], *embezzle* [ɪmˈbɛzl].
2. Finally, after short vowels, as *fizz* [fɪz], *buzz* [bʌz], of imitative origin.

c) s [z] from ME. s [z].

1. Intervocally, as *easy* [eɪz], *reason* [rizn] and [rizə], *treason* [trizən] and [trizə], *season* [sezən] and [sezə], *visit* [vɪzɪt], *busy* [bɪzi], *nasal* [neɪzəl], *daisy* [deɪzi], *closet* [klothət], *chosen* [tʃaʊzn] and [tʃaʊzn], *bosom* [bɒzəm], *usage* [juzɪdʒ] and [juzɪdʒ], *houses* [hausəz], *museum* [mjʊziəm], *cosy* [kɒzɪ], *poison* [pəʊzn] and [pəʊzn], *thousand* [ˈθaʊz(ə)nd].

2. Generally after the prefixes de-, re-, pre-, ab-, ob-, before stressed vowels and diphthongs, as *desert* [dɪzə(r)t], *desert* [dɛzə(r)t], *desire* [dɪzaɪə(r)t], *deserve* [dɪzə(r)v], *resolve* [rɪzəlv], *resist* [rɪzɪst], *reside* [rɪzaɪd], *resemble* [rɪzəmbəl], *result* [rɪzəlt], *resign* [rɪzən], *resume* [rɪzəm] and [rɪzjʊm]; *presume* [prɪzəm] and [prɪzjʊm]; *presume* [prɪzəm] and [prɪzjʊm], *preside* [prɪzaɪd], *present* [prɪzent], *prezont* and [prɪzənt], *presidium* [prɪzɪdiəm], *president* [prɛzɪdənt]; *absolve* [əbˈzɔlv], *absurd* [əbˈzɔ(r)d] and [əbsə(r)d]; *observe* [əbzə(r)v], *observatory* [əbzə(r)vəˈtɔrɪ], *observation* [əbzə(r)əˈfɪʃən].
3. Finally in prefixes before accented vowels (except u [ju], cf. disuse [disjus]), as disease [diziz], disorder [dzɔ(r)dzɔ(r)], transact [trænzækt], transaction [trænzækʃən], transocean [trænzəˈʃən] ([s] may be used in these words if the syllable division comes between the s and that which precedes it).

4. Between stressed vowels and voiced consonants, as islam [ɪzləm], wisdom [wɪzdəm], dismal [dɪzməl], grisly [grɪzlɪ], gosling [ɡəzlɪng], husband [ˈhʌzbənd], Tuesday [tjuːzdi], Wednesday [ˈwenzdi], Lisbon [ˈlɪzən], muslin [ˈmʌzlən], Kismet [ˈkɪzmət] and [kɪzmət].

5. Frequently after l, r, m, n, as palsy [ˈpɔlzi], Salisbury [ˈsɔlzbəri], Wolsey [ˈwʊlzɪ], jersey [ˈdʒɜri], kersey [ˈkɜri], flimsy [ˈflɪmsi], clumsy [ˈklʌmsi], mumsy [ˈmʌmsi], damsel [ˈdæmsəl], crimson [ˈkrɪzn], pansy [ˈpænsi], quinsy [ˈkwɪnz].

6. Finally in the unstressed digraph sm, as schism [sɪzm], prism [prɪzəm], spasms [spæzəm], criticism [krɪˈtaɪzəm], enthusiasm (enthusiasm [ˈenthausɪzəm], organism [ɔrganɪzəm], ism [ɪzm], puritanism [ˈpjuərɪtənɪzəm], despotism [dɪˈspətɪzəm], deism [dɛɪzəm], misam [mɪsəm], realism [ˈrɪəlɪzəm], cretinism
Finally in words ending in historical -se [z] preceded by stressed vowel or diphthong (from ME. -se [z(ə)], -se(n) [z(ən)] ), as cause [koz], because [bo:kəz], pause [pəz], clause [kloz], applause [ə pləz], phrase [frez], praise [preiz], chaise [ʃəz] or [ʃəz], ease [iz], appease [ə piz], disease [diziz], please [pliz], Chinese [tʃəniz] and [tʃəniz], Japanese [dзpxəniz] and [dзpxəniz], advertise and advertize [ədvə(r)taiz], chastise and chastize [tʃəstaiz], merchandise and merchandize [mə(r)ʃəndaiz], rose [roʊz]; close [klоʊz] [tʃəstaiz], merchandise and merchandize [mə(r)ʃəndaiz], rose [roʊz]; close [klоʊz]

n.; muse [mju:z], accuse [ɑkjuz].

Finally in the inflectional endings -s, -es, -i, -a', after voiced consonants or after vowels, as hille [hɪlz], beds [bɛdz], dogs [dɒgz], reds [rɛdz], ribs [rɪbz], eggs [ɛgz], beams [bɛmz], kings [kɪŋz], paths [pɑθz]; wines [waɪnz], lives [laɪvz], wolves [wʊlvz], stones [stoʊnз], maims [meɪmz], names [neɪmz], brides [braɪdz], robes [rɒbз], rogues [rɔgз]; seas [sez], foes [fɔʊz], eyes.
[aɪz], shoes [ʃuːz], news [njuːz], peas [piːz],
days [deɪz], trees [trɪz], ladies [ˈleɪdɪz],
cities [ˈsɪtɪz], foxes [fɒksɪz], fishes
[fiʃɪz], places [ˈpleɪsɪz], valleys [ˈvɔlɪz],
judges [dʒʌdʒɪz], churches [ˈtʃɜː(r)ʃɪz];
boys, boys' [bɔɪz], dogs, dogs' [dɒgz],
lady's, ladies' [ˈleɪdɪz], king's, kings'
[kiŋz], judge's, judges' [dʒʌdʒɪz].

9. In stressed syllables of Greek or Latin
words ending in -es, as series [sɪərɪz],
bases [ˈbeɪsɪz], crises [ˈkrɪsɪz], theses
[θɪsɪz], Aristophanes [ərɪstəˈfænɪz],
Socrates [sɒkrətɪz]; also in Charles
[tlɑː(r)lz], James [dʒeɪmz], Jacques
[daɪkwɪz].

10. Finally in adverbs ending in -a, -es,
following voiced consonants, as towards
[ˈtouə(r)dz], upwards [ʌpwa(r)dz], downwards
[daʊnwa(r)dz], inwards [ɪnwa(r)dz], outwards
[aʊtwa(r)dz]; besides [bɪˈsaɪdz]; also in the
pronouns these [ðɪz], those [ðəʊz], whose
[huz]; his [hɪz], hers [hɜː(r)z], yours
[juə(r)z], theirs [ðeə(r)z], ours [əʊə(r)z];
also in the auxiliary verbs is [ɪz], was
[waʊz], has [hæz]; and in the conjunction as
[æz].
d) **ss [z]** from ME. *s [z].

Intervocally, as **scissors** [sɪzə(r)z],
**dessert** [dɪzə(r)t], **possess** [pəzəs], **dissolve**
[dɪzəlv], **hussy** [hʌzɪ], **hussar** [hʌzə(r)] and
[hʌzə(r)], **hussif** [hʌzɪf].

e) **sz [z]** from Fr. *s [s], as **discern** [dɪzə(r)n],
**discernment** [dɪzə(r)nənt], etc.

f) **sz [z]** from Russ. *s [ts], as **czar** [zə(r)],
**czarina** [zarina], etc.

g) **x [z]** from Gr. ξ, κ [ksi], initially, as
**Xenophon** [zɛnəfon], **Xerxes** [zə(r)ksiəz],
**xylophone** [zaɪləfəʊn], **xyst** [zɪst], **xyster**
[zɪstə(r)].

**[gz]**

The NE. compound-phoneme **[gz]** has the following written forms
and sources:

a) **x [gz]** from the Latin **x [ks]** and Greek κ [ksi]
ultimately.

1. Before a stressed vowel, as example [ɪgzəmpəl],
**examine** [ɪgzəmən], **exalt** [ɪgzəlt], **exist**
[ɪgzəst], **exaggerate** [ɪgzəɡreɪt], **exilic**
[ɪgzɪlɪk], **exotic** [ɪgzətɪk], **exempt** [ɪgzəmpt],
**exert** [ɪgzə(r)t], **exemplary** [ɪgzəmplər].
2. Before silent h followed by a stressed vowel, as exhaust [ɪgzɔst], exhibit [ɪgzɪbɪt], exhilarate [ɪgzɪlərət], exhort [ɪgzɔ(r)ət].

[ʃ]

The NE. phoneme [ʃ] has the following written forms and sources:

a) sh [ʃ] from ME. sch, sh [ʃ].

1. Initially, medially, and finally, as shaft [ʃɑt], shade [ʃeɪd], shall [ʃəl], sheep [ʃɪp], shame [ʃeɪm], show [ʃəʊ], shoot [ʃut], sheriff [ʃɜrɪf], shoe [ʃu]; fisher [fɪʃə(r)], bishop [bɪʃəp], worship [wɜ(p)ʃəp], ashes [ɔʃ], washer [wɜʃə(r)], wishes [wɪʃəz]; wish [wɪʃ], blush [blʌʃ], thresh [θrəʃ], flesh [flɪʃ], thrash [θræʃ], Welsh [wɛlʃ], English [ˈɛŋɡlɪʃ].

2. Medially and finally, after short (sometimes unstressed) vowels, in French loan-words, from OFr. 1 [ʃ] before as, as usher [ʌʃə(r)], bushel [bʊʃəl], cushion [kʌʃən], cashier [ˈkæʃər], bashful [ˈbæʃfʊl]; brush [brʌʃ], ambush [əmbʌʃ], cash [kæʃ], abash [əbæʃ], finish [fɪnɪʃ], punish [ˈpʌniʃ], flourish [ˈflɔrɪʃ].
b) ə [s], from Ofr. ə [s], before ə, ə followed by an unstressed vowel or consonant, before stressed u [u], medially and initially, as nausea [nəsə], nauseous [nəsəs], Asia [əsia], and [əsiə], Persia [pəsə(r)ə] and [pəsə(r)ə], fuchsia [ˈfjuʃə], pension [pənʃən], mansion [ˈmænʃən], expulsion [ɪkˈspɜrən], excursion [ɪkˈskɜərən] and [ɪkˈskɜərən]; sure [ʃʊə(r)], insure [ɪnsəˈwə (r)], insurance [ɪnˈʃərən(t)əs], sensual [ˈsənʃuəl]; censure [ˈsənʃuə(r)]; sugar [ˈsʌɡə(r)].

c) əə [ʃ] with source same as b) above and occurring medially only, as issue [ɪʃu], pressure [prəʃə(r)], passion [pəʃən], confession [kənʃən], discussion [dɪskən]; assure [əˈʃʊə(r)], assurance [əˈʃərən(t)ə]; Russia [ˈrusə], Prussia [ˈprɔsə].

d) əə [ʃ] from the Latin and occurring only medially, after stressed vowels, as luscious [ˈlʌʃəs], conscience [kənʃən(t)əs], conscious [kənʃəs].

e) sch [ʃ] from Latin, Greek and other loan-words as schedule [ˈʃedjul], schnapper [ʃnəpə(r)] and [ʃnəpə(r)], schnappa [ʃnəpə], schiller [ʃilə(r)], schillerize [ʃɪləˈraɪz], schist [ʃɪst].
schlieren [ʃliərən], Scheherazade
[ʃaherentədə], schnorrer [ʃnərə(r)] Yid.,
schottische [ʃptʃtʃ], schonl [ʃɔə(r)l],
schatzen [ʃatʃən] Yid.

f) ə [ə] from ME. ə [s] before e, ɪ, followed by an unstressed vowel, as special [ˈspɛʃəl],
social [ˈsəʊʃəl], ocean [ˈəʊʃən], commercial
[kəˈmərəʃəl], physician [ˈfɪziən], ancient
[ənˈsænt], officiate [ˈɒfɪseɪt], glacier
[ˈɡleɪʃə(r)], deficient [ˈdɪfənt], gracious
[ɡrəˈʃəs], delicious [ˈdɪliʃəs], suspicion
[ˈspɛʃən], precious [ˈpreʃəs].

g) t [t] mostly from Latin t through OFr. into ME., and found medially before ɪ with a
following unstressed vowel, as patient
[ˈpeɪʃənt], initial [ɪnʃəl], nation [ˈneɪʃən]
(ME. nacioun [nəsiən]), partial [ˈpɑ(r)ʃəl],
essential [ˈesɛʃəl], education [ɛdʒəˈkeɪʃən],
condition [ˈkɑndəʃən], exertion [ɪɡzə(r)ʃən],
action [ˈækʃən], cautious [ˈkɔʃəs], ambitious
[ˈæmbɪʃəs], perfection [ˈpɜ(r)fkəˈʃən], description
[ˌdɪskrɪpˈʃən], destruction [ˌdɪstrəˈkʃən],
devotion [ˌdɪvəˈʃən].

h) ch [ʃ] from Fr. loan-words (OFr. ch [tʃ]).

1. Initially, medially, and finally, as
champagne, champaign [ˈkæmpən], chagrın
[agrín], chicanery [ʃˈkærəri], chevalier
[ʃvalie ə(r)], charade [ˈʃærdə], chaco [ˈʃako];
charge [ˈʃɑrdʒ]; machine [ˈməʃin], falchion
[ˈfɔlʃən] or [ˈfɔlʃən], marchioness [ˈmɑ(r)ʃənəs],
machinery [ˈməʃəniləri] and [ˈməʃəniləri]; moustache
[ˈməstəʃ], cache [ˈkæʃ], cartouche [ˈka(r)təʃ],
affiche [ˈafʃə], nouveau-riche [ˈnuvəˈriʃ].

2. Finally in some Germanic and Romance words,
after short vowels, as blanch [blænʃ], branch
[bræŋʃ], inch [ɪŋʃ], finch [fɪŋʃ], bench
[benʃ], bunch [bæŋʃ], launch [lʌŋʃ], avalanche
[əˈvælənʃ], lunch [lʌŋʃ], luncheon [ˈlʌnʃən],
French [frʌŋʃ].
Note: These words are also pronounced with
[ʃ], as lunch [lʌntʃ], inch [ɪntʃ],
branch [bræŋtʃ].

1) sk [ʃ] in Scandinavian loan-words, as ski [ʃi]
and [ski].

[31]
The NE. phoneme [ɜ] has the following written forms and
sources:

a) ə [ɜ] from ME. ə [z] before ə with following
vowel or before u [ju]. The changes to [ɜ] have
been made since the 17th or 18th Centuries.
Medially, as glazier [gleiʒə(r)], azure [ɔəʒə(r)], seizure [siʒə(r)].

b) ɔ [ɔ] with sources as a) above.

Medially, as vision [vɪʒən], fusion [fjuʒən], occasion [əkəʒən], confusion [kənfjuʒən], brasier [breɪʒə(r)], explosion [ɪkspləʊʒən], exclusion [ɪkskluʒən], hosier [hoʊʃə(r)], osier [əʊʃə(r)]; erasure [ɪ'reɪʒə(r)] and [ɪ'reɪʃə(r)], measure [mɛʒə(r)], pleasure [pleʒə(r)], treasure [treʒə(r)], leisure [lɛʒə(r)].

c) ɔe [ɔ] sporadically in abscission [əbˈsɪʒən].

d) t [tʃ] before i as transition [trænʒən] and [trænʒən].

e) ɔe [ɔ] finally in a few Fr. loan-words, as mirage [ˈmɪrəʒ], rouge [ruʒ]; garase [ɡəˈræʒ].

[tʃ]

The NE. phoneme [tʃ] has the following written forms and sources:

a) ch [tʃ] from ME. ch [tʃ].

Initially, medially, and finally, as charge [tʃə(ɹ)dʒ], chapel [tʃəpəl], change [tʃe(ɹ)ndʒ], child [tʃəild], choose [tʃuəz], chew [tʃu], chief [tʃiəf], cheese [tʃiəs], choice [tʃiəs].
chalk [tʃæk]; bachelor [bætʃə(r)],
purchase [pɜːtʃə(r)], riches [rɪtʃiz],
duchess [dʌtʃəs], merchant [mɜːtʃənt],
mischief [mɪʃf], archbishop [ɑːr(ə)bɪʃoʊp],
arcery [ɑː(r)ərɪ], birch [bɜː(r)tʃ], march
[ma(r)tʃ], search [sɜːr(tʃ)], church [tʃɜːtʃ],
each [ɪtʃ], speech [spɪtʃ], reach [rɪtʃ],
couch [koʊtʃ], pouch [pɑʊtʃ], approach
[əprəʊtʃ], coach [kəʊtʃ], such [sʌtʃ], much
[matʃ], touch [tʌtʃ], attach [ətʃ], rich
[rɪtʃ].

b) tɔtʃ from ME. ooh [ɒtʃ].
Medially and finally as butcher [bʌtʃə(r)],
wretched [rɛtʃəd], kitchen [kitʃən], itchy
[ɪtʃ], crotchety [krɒtʃəti]; watch [wɔtʃ],
fetch [fɛtʃ], stretch [strɛtʃ], witch [wɪtʃ],
crutch [krʌtʃ], catch [kætʃ], despatch
[dɪspætʃ], wretch [rɛtʃ], Scotch [skɔtʃ].

c) t [tʃ] from ME. t before ə, ɪ with following
unstressed vowel, as righteous [rʌɪtʃəs],
question [kwɛstʃən], bastion [bæstʃən];
virtue [vɜːtʃu(ə)r], nature [neɪtʃər], future
[fjuːtʃu(ə)r], scripture [skrɪptʃu(ə)r], picture
[pɪktʃu(ə)r], lecture [ˈlɛktʃuːr], fortune
[fətʃu(ə)r], feature [fətʃu(ə)r], literature
[lɪtərərɪ], natural [ˈnætʃərəl], mutual
The NE. compound-phoneme \([k\mathbf{\ddot{s}}]\) has the following written forms and sources:

a) \(k\mathbf{\ddot{s}}\) (from Latin \(k\mathbf{\ddot{s}}\)) medially before \(l\) with following unstressed vowel, as complexion 
\([\text{k}\text{mpl}\text{\varepsilon}\text{k}\text{\ddot{\jmath}}\text{n}]\), connexion [\(\text{k}\text{\text{\varepsilon}n}\text{k}\text{\ddot{\jmath}}\text{n}]\), reflection [\(\text{r}\text{\text{\varepsilon}f}\text{l}\text{k}\text{\ddot{\jmath}}\text{n}]\), anxious [\(\text{\a}\text{n}\text{k}\text{\ddot{\jmath}}\text{s}\)]s; luxury 
[\(\text{l}\text{\text{\varepsilon}k}\text{\ddot{\jmath}}\text{\r}\text{n}]\), noxious [\(\text{\np}\text{k}\text{\ddot{\jmath}}\text{s}\)].
b) \(a\mathbf{\ddot{t}}\) (from Fr. \(a\mathbf{\ddot{t}}\)) medially before \(l\) with following unstressed vowel, as action 
[\(\text{\a}\text{k}\text{\ddot{\jmath}}\text{n}]\), function [\(\text{d}\text{\a}\text{n}\text{k}\text{\ddot{\jmath}}\text{n}]\), perfection 
[\(\text{p}\text{\r}\text{\varepsilon}f\text{l}\text{k}\text{\ddot{\jmath}}\text{n}]\), distinction [\(\text{d}\text{\i}\text{\varepsilon}n\text{\i}\text{k}\text{\ddot{\jmath}}\text{n}]\), connection [\(\text{k}\text{\varepsilonn}\text{k}\text{\ddot{\jmath}}\text{n}]\), reflection [\(\text{r}\text{\text{\varepsilon}f}\text{l}\text{k}\text{\ddot{\jmath}}\text{n}]\), afflication [\(\text{\a}\text{f}\text{l}\text{k}\text{\ddot{\jmath}}\text{n}]\).

The NE. phoneme \([d\mathbf{\ddot{z}}]\) has the following written forms and sources:

a) \(z\) (from NE. \(z\)).

1. Initially before \(e\), \(i\), \(u\), \(o\), as kem [\(d\text{j}\text{\varepsilon}\text{\m}]]\),
gender [dʒɛndə(r)], general [dʒəˈnɛrəl],
gentle [dʒɛntl], gentlel [dʒentil], gentlemen, gentleman [dʒɛntləmən]; gin [dʒɪn], singer [dʒɪndʒə(r)], giant [dʒaɪənt], gypsy [dʒaɪˈvɪz]; gaol [dʒeɪl].

2. Medially before e, i, y, as engine [ˈɛndʒɪn],
pageant [ˈpeɪdʒənt], wager [ˈweɪdʒə(r)], legend
[ˈledʒənd], repent [rɪˈpent], pigeon [ˈpaɪdʒən],
surgeon [ˈsɜːdʒən], danger [dɪˈnɜːdʒə(r)],
imagine [ɪˈmædʒɪn], magic [ˈmædʒɪk], fragile
[ˈfrædʒəl], contagion [kənˈtædʒən], tragic
[trəˈdʒɪk], emit [ɪˈdɪm], religious
[riˈlɪdʒəs], origin [ˈɔrɪdʒən], virgin
[ˈvɜːdʒɪn], logic [ˈlɒdʒɪk], dingy [dɪŋˈdi],
stingy [stɪŋˈdi], clumsy [ˈklʌmzɪ].

3. Finally before e, as surge, serve [sɜː(r)dz],
urze [ˈɜːdz], sich [sɪdz], huge [hjuːdʒ],
oblige [əˈblaɪdʒ], rage [ræɪdʒ], are [ərdʒ],
carriage [ˈkærɪdʒ], privilege [ˈprɪvəldʒ],
scourge [ˈskɜːrdʒ], change [tʃeɪndʒ], since
[sɨndʒ], lounge [ˈlaʊndʒ], plunge [plʌndʒ],
indulge [ɪnˈdʌlʤ], large [lɑː(r)dʒ], voyage
[vəɪdʒ], courage [ˈkʌrɪdʒ], image [ɪmˈdʒɪz].

b) ɛː [dʒɔː] from ME. e [dʒə], as in suggest
[ˌsɪdʒəst] also [ˌgasdʒəst], exaggerate
[ˌɪɡzədʒəreɪt].
c) **dg** [dʒ] from ME. **dg** [dʒ].

1. Medially, as **budget** [ˈbʌdʒɪt], **lodging** [ˈlɒdnɪŋ], **lodgment** [ˈlɒdmənt], **judgment** [ˈdʒudmənt], **abridgment** [əˈbrɪdmənt], **fledgling** [ˈflɛdʒlɪŋ], **ledger** [ˈlɛdʒə(r)].

2. Finally before **e**, as **edge** [ɛdʒ], **hedge** [hɛdʒ], **bridge** [briːdʒ], **judge** [dʒʌdʒ], **knowledge** [ˈnɔldʒ], **partridge** [ˈpɑ(r)trɪdʒ], **lodge** [ˈlɒdʒ], **ledge** [ˈledʒ].

d) **l** [l] from ME. **l** [l].

Initially and medially in Romance words, as **jail** [dʒeɪl], **jest** [dʒɛst], **jealous** [dʒeləs], **jolly** [dʒɒli], **join** [dʒɔɪn], **jewel** [dʒuːl], **Jew** [dʒuː], **judge** [dʒʌdʒ], **just** [dʒʌst], **Jesus** [dʒeɪzəs], **journey** [dʒərni], **jew** [dʒuː], **jam** [dʒæm], **jar** [dʒɑ(r)], **subject** [ˈsəbʤɪkt], **major** [ˈmeɪdʒə(r)], **majesty** [ˈmeɪdʒɪstɪ], **sojourn** [ˈsoʊdʒərni], **banjo** [ˈbændʒoʊ], **perjury** [ˈpɜːdʒəri], **ajar** [ˈdʒaːr].

e) **dʒ** [dʒ], as in **adjourn** [ədˈʒʊrn], **adjournment** [ədˈʒʊrnment]; also **hadjī** [hædʒi] (Arabic).

f) **dʒ** medially before **e, i** with following vowel or before **u** [ju], as **grandeur** [ˈɡrændʒə(r)], **soldier** [ˈsɔldʒə(r)], **verdure** [ˈvɜːdʒə(r)].
g) oh [dʒ] finally, as in Greenwich [grɪn'dʒ], Norwich [nɔr'dʒ], spinach [spɪn'dʒ], ostrich [ˈɒstrɪʃ], sandwich [ˈsænwɪtʃ].

Note: These words are also pronounced with [tʃ], as Greenwich (grɪnwtʃ) (a town in Connecticut), ostrich (ɒstrɪʃ), sandwich (ˈsænwɪtʃ), etc.

[gʒ]

The NE. compound-phoneme [gʒ] has the following written form and source:

a) x [gʒ] from Latin x [ks], medially before u [ju], as luxurious [ˈlʌgʃʊriəs], luxuriate [ˈlʌgʃʊrɪət], etc.

[j]

The NE. phoneme [j] has the following written forms and sources:

a) y [j] from ME. ȝ [j] and appearing initially, as you [ju], yew [ju], your [jʊə(r)], youth [juθ], young [jʌŋ], yes [jes], yell [jɛl], year [jɪə(r)], yield [jɪəld], yard [jɑ(r)d], yawn [jɔn], York [jɔk(r)k].

b) ƚ [j] before an unstressed suffixal vowel after st, d, t, n, as Christian [ˈkrɪstʃæn]
and [krıstʃən], bastion [bəstʃən] and [bəstʃən], India [ɪndʒə], obedient [əbidʒənt], tedious [tɪdʒəs], insidious [ɪnˈsɪdiəs], filial [fɪˈlɪdʒəl], Italian [ɪtəlˈjən], million [ˈmɪljən], William [ˈwɪljug], medial [ˈmɪdjəl]; poniard [ˈpɔnɪərd], onion [ˈaʊndən], opinion [əˈpɪnjən].

c) e [ˈɛ] medially after d, n before an unstressed vowel, as hridious [ˈhɪdʒəs] and [ˈhɪdʒəs], linear [ˈlɪnər], lineal [ˈlɪnjəl], lineament [ˈlɪnjəmənt].

d) i [ˈiː] in hallelujah [həˈlɛluːdʒə].

[h]

The NE. phoneme [h] has the following written forms and sources:

a) h [h] from ME. h [h].

1. Initially in Germanic and Romance words, as have [hæv], help [həlp], home [hoʊm], house [haʊs], honey [ˈhʌni], heart [hɑ(r)t], habit [ˈhæbit], hitch [hɪt], harness [hɑ(r)nɪs], humble [ˈhʌmbəl], hermit [həˈmɪt], hero [hɪrəʊ], hotel [hɔtəl], hood [hʊd], herald [həˈreɪld], heavy [ˈhɛvi], heaven [ˈhevn]; him [hɪm], her [hɛr], he [hɛ], his [hɪz], had [hæd], has [hæs]; hit [hɪt], hat [hæt], happen [ˈhæpən], happy [ˈhæpi].
2. Medially, as perhaps [pə(r)həpə], prehensile [prihənˈsəl], preheat [prihət], rehash [rihəʃ], dehisce [dihəs], unharm [ʌnha(r)m], inhale [inˈheɪl], inhuman [ˈinhjuːmən], childhood [ˈtaɪldhʌd].

b) wh [h] from OE. hw [hw] or [ʍ], as who [hu], whom [hʌm], whose [huz], whole [ˈhəʊl], wholly [ˈhəʊli].

Note: Written (alphabetic) h is silent in some Romance words as hour [ˈauə(r)], honor [ˈɒnə(r)], heir [ˈɛə(r)], heiress [ˈɛərɪs], honest [ˈɒnɪst], hostler [ˈəʊstə(r)]; silent also in the second part of some other compounded words, as forehead [ˈfɔːrd], shepherd [spa(r)d], Durham [ˈdʌrm], Chatham [ˈtʃætəm]; in exhaust [ɪɡzəst], exhibit [ɪɡzɪˈbɪt]; also silent in ghost [ɡoʊst], John [dʒɔn], ah [ə], oh [ou], eh [e], Buddha [ˈbʊðə], Brahman [ˈbraːmən], khaki [ˈkæki], Messiah [ˈmɪʃə], in the following when they are lightly accented, as his [ɪz], he [ɪ], her [ə(r)], him [ɪm], have [əv], [v], has [əz], [z], had [əd], [ə]; frequently before u [Ju], as human [ˈhjuːmən], humor [ˈhjuːmər], Hugh [ Ju], huge [Juːdʒ]; also before u [ʌ], as humble [ˈhʌmbəl]; and often silent . . .
in wh, as what [wæt], when [wɛn], which [wɪtʃ], white [wɔlt], wheat [wɪt]; and in the expletive why [wɔl].

[w]

The NE. phoneme [w] has the following written forms and sources:

a) w [w] from ME. w [w].

1. Initially, as was [wɔz], wander [wʌndə(r)], wages [weɪdʒz], well [wel], wish [wɪʃ], wonder [wʌndə(r)], wolf [wʊlf], wound [wʌnd], [waʊnd], way [wel], wet [wɛt], wash [wɔʃ], wool [wʊl], wood [wʊd], word [wɜ(r)d].

2. After t, d, th, s, as twig [twɪg], twice [twɔız], twelve [twɛlv]; dwarf [drɔwə(r)f], dwell [dwel], thwart [θwɔə(r)t], thwack [θwɔk]; sweet [swɪt], swim [swɪm], sweat [swɛt], swine [swain], swell [swel], swallow [swɔplɔ]; also medially, as reward [rɪwɔ(r)d], backward [bækwə(r)d], always [ɔlwaɪz], peewit [piwɪt], wayward [weɪwɔ(r)d].

Note: Written (alphabetic) w in the digraph wr has been silent since the 17th Century, as wrong [rɔŋ], wrinkle [rɪŋkəl], wring [rɪŋ], wreak [rɪk], wreck [rɛk], write
[rait], written [ritn], wretch [retʃ]; it is also silent in sword [sɔ(r)d], two [tu], answer [ənsə(r)], Greenwich [grɪndʒ], boatswain [bɒUsn], Alnwick [ænɪk], Harwich [hərɪdʒ], Norwich [nɔs(r)witʃ] and [nɔrɪdʒ], Warwick [wɔrɪk].

b) wh [w] from ME. wh [ʍ] is heard in the speech of many people as what [wɔt], where [weə(r)], white [wait], why [wai], wheat [wit], wheel [wil], whale [weil], when [wen], whinny [win]. This practice is most frequently observed in the southern counties of England.

c) (g)u [(s)w] appears in some Romance loan-words as persuade [pə(r)sweɪd], assuage [əswʌidʒ], suaging [sweɪdʒ], suite [swit].

d) (g)u [(g)w] appears in some Romance words as language [læŋgwidʒ], languish [læŋgwɪʃ], anguish [æŋgwɪʃ], distinguish [dɪstɪŋgwɪʃ] (cf. section a), under [gw], p. 191).

e) o [w(ə)] as in one [wan], once [wan(t)s].

f) (g)u [(k)w] appears in some Germanic and Romance words, as quick [kwɪk], queen [kwɪn], quell [kwɛl], quite [kwɛit], quoth [kwɔθ], quality [kwɑləti], equal [kwɛl], frequent [frɪkwɛnt], liquid [lɪkwɪd].
The NE. phoneme [M] has the following written forms and sources:

a) wh [M] from OE. hw [hw] or [M].

Initially, as what [mat], why [mai] (interrogative), which [mit], whether [me3a(r)], whimper [mimpa(r)], whistle [misal], whip [mip], when [men], white [mai], wheat [mit], whey [me1], wheel [mil], whirl, whorl [ma3(r)l], what [mit], whale [me1], where [me3a(r)], whelp [melp], whoop [mup], while [mai].

Note: In some sections of northern England and Scotland [Xw] is used for [M], as which [Xwit], white [Xwait], etc.
## SUMMARY OF CHAPTER III

The Vowels

| 1 | ee | in flee [fli] from ME. | e [e] |
| 2 | ie | in fie [fif] from ME. | e [e] |
| 3 | e | in mete [mit] from ME. | e [e] |
| 4 | ea | in leap [lip] from ME. | e [e] |
| 5 | ei | in seize [siz] from ME. | e1 [ei] |
| 6 | ey | in key [ki] from ME. | ei, ey [ei] |
| 7 | eo | in people [pipəl] from ME. | e [e] |
| 8 | ae | in aegis [idgiz] from ME. | ae [e] |
| 9 | (u)ay | in quay [ki] from ME. | a1, ay [a1] |
| 10 | oi | in turquoise [tɔ(r)kiz] from ME. | o1 [ɔ] |
| 11 | i | in marine [mərin] loan-words |
| 12 | eau | in Beauchamp [bətʃəm] loan-words |
| 13 | aiu | in Caius [kiz] loan-words |
| 14 | y | in yclept [iklɛpt] from ME. | y [i] |
| 15 | oe | in Phoebe [fibi] loan-words |

<p>| 1 | i | in bring [brɪŋ] from ME. | i [i] |
| 2 | y | in system [sɪstəm] loan-words |</p>
<table>
<thead>
<tr>
<th>No.</th>
<th>Vowel</th>
<th>Syllable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>a</td>
<td>ache [eik] from ME. e [e].</td>
</tr>
<tr>
<td>2.</td>
<td>ai</td>
<td>sail [seil] from ME. ai, ay [ai].</td>
</tr>
<tr>
<td>3.</td>
<td>ay</td>
<td>way [wei] from ME. ai, ay [ai].</td>
</tr>
<tr>
<td>4.</td>
<td>ei</td>
<td>weigh [wei] from ME. ei [ei].</td>
</tr>
<tr>
<td>5.</td>
<td>ey</td>
<td>they [fei] from ME. ei [ei].</td>
</tr>
<tr>
<td>6.</td>
<td>ea</td>
<td>great [greit] from ME. e [ei].</td>
</tr>
<tr>
<td>7.</td>
<td>e</td>
<td>in sieve [siv] from ME. e [e].</td>
</tr>
<tr>
<td>8.</td>
<td>ee</td>
<td>in pretty [priti] from ME. ee [e].</td>
</tr>
<tr>
<td>9.</td>
<td>u</td>
<td>in busy [bizi] from ME. u [y].</td>
</tr>
<tr>
<td>10.</td>
<td>ui</td>
<td>in build [bild] from ME. ui [Y].</td>
</tr>
<tr>
<td>11.</td>
<td>a</td>
<td>in adage [zdidʒ] from ME. a [a].</td>
</tr>
<tr>
<td>12.</td>
<td>ia</td>
<td>in carriage [kəridʒ] from ME. ia [ia].</td>
</tr>
<tr>
<td>13.</td>
<td>ai</td>
<td>in captain [kəptin] from ME. ai [ai].</td>
</tr>
<tr>
<td>15.</td>
<td>ey</td>
<td>in money [mani] from ME. ei, ey [ei].</td>
</tr>
<tr>
<td>16.</td>
<td>eo</td>
<td>in pigeon [pɪdʒin] from ME. eo [eo].</td>
</tr>
<tr>
<td>17.</td>
<td>oo</td>
<td>in waistcoat [weɪskɪt] unstressing</td>
</tr>
<tr>
<td>18.</td>
<td>ol</td>
<td>in tortoise [tɔ(r)təs] from ME. ol [ol].</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[e-ei]</td>
</tr>
<tr>
<td>7.</td>
<td>aa</td>
<td>in <em>graal</em> (<em>greɪl</em>)</td>
</tr>
<tr>
<td>---</td>
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</tr>
<tr>
<td>8.</td>
<td>ao</td>
<td>in <em>gool</em> (<em>dʒeɪl</em>)</td>
</tr>
<tr>
<td>9.</td>
<td>au</td>
<td>in <em>gauge</em> (<em>gɛideʒ</em>)</td>
</tr>
<tr>
<td>10.</td>
<td>e</td>
<td>in <em>bouquet</em> (<em>bʊket</em>)</td>
</tr>
<tr>
<td>11.</td>
<td>ee</td>
<td>in <em>matinee</em> (<em>mætneɪ</em>)</td>
</tr>
</tbody>
</table>

| [e] |
|---|---|---|---|
| 1. | e | in *let* (*lɛt*) | from ME. |
| 2. | ea | in *dead* (*dɛd*) | from ME. |
| 3. | aí | in *said* (*sɛd*) | from ME. |
| 4. | ay | in *seys* (*sɛz*) | from ME. |
| 5. | ei | in *heifer* (*hɛʃɛ(r)*) | from ME. |
| 6. | ie | in *friend* (*frɛnd*) | from ME. |
| 7. | eo | in *feoff* (*fɛf*) | from ME. |
| 8. | a | in *care* (*kɛə(r)*) | from ME. |
| 9. | u | in *bury* (*bɛri*) | from Kent. |
| 10. | ue | in *guess* (*ɡɛs*) | loan-words |
| 11. | ae | in *aerie* (*ɛri*) | loan-words |
| 12. | oe | in *Oedipus* (*ɛdɪpʌs*) | loan-words |
| 13. | ey | in *Reynell* (*rɛnɛl*) | from ME. |
| 14. | aa | in *Aaron* (*ɛrən*) | loan-words |

| [ɘ] |
|---|---|---|---|
| 1. | a | in *bad* (*bæd*) | from ME. |
| 2. | au | in *laugh* (*lɑf*) | from ME. |
3. ai in plaid [plæd] from Gaelic ai [æi].

4. aa in baa [bɔ] inventions (onomatopoeia)

5. i in meringue [merɪŋg] loan-words

[a]

1. a in last [last] from ME. a [æ].

[a]

1. a in father [faðə(r)] from ME. a [æ].

2. au in vaunt [vant] from ME. au [au].

3. aa in salaam [sələm] loan-words

4. e in sergeant

[sa(r)dzənt] from ME. e [ɛ].

5. eau in bureaucracy

[bjʊəkrəseɪ] loan-words

6. oi in boudoir [budwa(r)] loan-words

7. ea in heart [ha(r)t] from ME. ea [ɛə].

[v]

1. o in ox [ɔks] from ME. o [ɔ].

2. a in wad [wɔd] from ME. o [ɔ] a [ɛ].

3. ou in hough [hɔk] from ME. ou [ou].

4. ow in knowledge

[nəlɪdʒ] from iME. ow [u].
<table>
<thead>
<tr>
<th>5. au</th>
<th><strong>in laurel</strong> [ˈlaʊrl]</th>
<th>loan-words</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. a</td>
<td><strong>in all</strong> [ɔ</td>
<td>]</td>
</tr>
<tr>
<td>2. au</td>
<td><strong>in aught</strong> [ɔt]</td>
<td>from ME.</td>
</tr>
<tr>
<td>3. aw</td>
<td><strong>in law</strong> [lɔ]</td>
<td>from ME.</td>
</tr>
<tr>
<td>4. awe</td>
<td><strong>in awe</strong> [ɔ]</td>
<td>from ME.</td>
</tr>
<tr>
<td>5. ou</td>
<td><strong>in bought</strong> [bɔt]</td>
<td>from ME.</td>
</tr>
<tr>
<td>6. o</td>
<td><strong>in lost</strong> [lost]</td>
<td>from ME.</td>
</tr>
<tr>
<td>7. oa</td>
<td><strong>in oar</strong> [ɔ(r)]</td>
<td>from ME.</td>
</tr>
<tr>
<td>8. ao</td>
<td><strong>in extraordinary</strong></td>
<td>unatressing in compounds.</td>
</tr>
<tr>
<td></td>
<td>[ɪkstrəˈdɛrɪ]</td>
<td></td>
</tr>
<tr>
<td>9. oo</td>
<td><strong>in door</strong> [dɔ(r)]</td>
<td>from ME.</td>
</tr>
<tr>
<td>10. oi</td>
<td><strong>in reservoir</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>[rɛzəˈvɔ(r)]</td>
<td>loan-words</td>
</tr>
<tr>
<td>11. eo</td>
<td><strong>in George</strong> [dʒɔ(r)dʒ]</td>
<td>loan-words</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>[ɔ-ɔU]</th>
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<tbody>
<tr>
<td>1. o</td>
</tr>
<tr>
<td>2. oe</td>
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<td>3. oe</td>
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<td>4. oo</td>
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<td>5. ou</td>
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<td>6. ow</td>
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<td>7. owe</td>
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<td></td>
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<td>---</td>
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<tr>
<td>9.</td>
</tr>
<tr>
<td>10.</td>
</tr>
<tr>
<td>11.</td>
</tr>
</tbody>
</table>

**[U]**

<table>
<thead>
<tr>
<th></th>
<th>1. <em>u</em> in <em>full</em> [fʊl]</th>
<th>from ME.</th>
<th><em>u</em> [ʊ].</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.</td>
<td><em>o</em> in <em>wolf</em> [wʊlf]</td>
<td>from ME.</td>
<td><em>u</em> [ʊ].</td>
</tr>
<tr>
<td>3.</td>
<td><em>oo</em> in <em>wood</em> [wʊd]</td>
<td>from ME.</td>
<td><em>o</em> [o].</td>
</tr>
<tr>
<td>4.</td>
<td><em>ou</em> in <em>could</em> [kʊd]</td>
<td>from ME.</td>
<td><em>ou</em> [u].</td>
</tr>
</tbody>
</table>

**[u]**

<table>
<thead>
<tr>
<th></th>
<th>1. <em>o</em> in <em>do</em> [du]</th>
<th>from ME.</th>
<th><em>o</em> [o].</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.</td>
<td><em>oe</em> in <em>shoe</em> [ʃu]</td>
<td>from ME.</td>
<td><em>o</em> [o].</td>
</tr>
<tr>
<td>3.</td>
<td><em>oo</em> in <em>too</em> [tu]</td>
<td>from ME.</td>
<td><em>o</em> [o].</td>
</tr>
<tr>
<td>4.</td>
<td><em>ou</em> in <em>soup</em> [sʊp]</td>
<td>from ME.</td>
<td><em>ou</em> [ou].</td>
</tr>
<tr>
<td>5.</td>
<td><em>u</em> in <em>rule</em> [rʊl]</td>
<td>from ME.</td>
<td><em>u</em> [u].</td>
</tr>
<tr>
<td>6.</td>
<td><em>ue</em> in <em>blue</em> [blu]</td>
<td>from ME.</td>
<td><em>ue</em> [uə].</td>
</tr>
<tr>
<td>7.</td>
<td><em>ui</em> in <em>fruit</em> [frut]</td>
<td>from ME.</td>
<td><em>u</em> [u].</td>
</tr>
<tr>
<td>8.</td>
<td><em>eu</em> in <em>feud</em> [fjuːd]</td>
<td>from ME.</td>
<td><em>eu</em> [eʊ].</td>
</tr>
<tr>
<td>9.</td>
<td><em>eue</em> in <em>queue</em> [kjuː]</td>
<td>loan-words</td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td><em>ew</em> in <em>yew</em> [jʊ]</td>
<td>from ME.</td>
<td><em>eu</em> [eʊ].</td>
</tr>
<tr>
<td>11.</td>
<td><em>ewe</em> in <em>ewe</em> [jʊ]</td>
<td>from ME.</td>
<td><em>eu</em> [eʊ].</td>
</tr>
<tr>
<td>12.</td>
<td><em>eau</em> in <em>beauty</em> [bjuːtɪ]</td>
<td>from ME.</td>
<td><em>eu</em> [eʊ].</td>
</tr>
<tr>
<td>13.</td>
<td><em>eo</em> in <em>feod</em> [fjuːd]</td>
<td>from ME.</td>
<td><em>eu</em> [eʊ].</td>
</tr>
</tbody>
</table>
14. *ieu* in *lieu* [lu] from ME. eu [eU].
15. *iew* in *view* [vju] from ME. eu [eU].
16. *au* in *Sault* [su] loan-words
17. *ioux* in *Sioux* [su] loan-words

[3:]  
1. *e* in *her* [h3(r)] from ME. e [i].
2. *ea* in *learn* [l3(r)n] from ME. e [i].
3. *i* in *firm* [f3(r)m] from ME. i [i].
4. *u* in *turn* [t3(r)n] from ME. i [i].
5. *o* in *word* [w3(r)d] from ME. o [o].
6. *olo* in *colonel* [k3(r)nol] loan-words
7. *ou* in *scourge* [sk3(r)dʒ] from ME. ou [u].

[^]  
1. *u* in *dust* [dʌst] from ME. u [U].
2. *o* in *love* [lʌv] from ME. u [U].
3. *ou* in *tough* [tʌf] from ME. ou [u].
4. *oo* in *blood* [blʌd] from ME. o [o].
5. *oe* in *does* [dʌz] from ME. o [o].

[3]  
1. *a* in *metal* [metəl] from ME. a [a].
2. *e* in *vessel* [vəsəl] from ME. e [i].
3. *o* in *symbol* [səmbəl] from ME. o [o].
4. **u**  in *vellum* [ˈvɛləm] from ME.  u  [y].
5. **ou**  in *famous* [ˈfeɪməs] from ME.  ou  [u].
6. **ai**  in *mountain* [maʊnˈtæn] from ME.  ai  [ai].
7. **oa**  in *cupboard* [ˈkʌpboʊd] from ME.  o  [ɔ].
8. **y**  in *paralysis* [ˌpærəˈlaɪzəs] loan-words
9. **aa**  in *Balaam* [ˈbeɪləm] loan-words
10. **i**  in *jubilee* [ˈdʒuːbəli] from ME.  i  [ɪ].
11. **r**  in *here* [hɪə] unstressing

The Diphthongs

1. **i**  in *mine* [maɪn] from ME.  i  [ɪ].
2. **ie**  in *die* [daɪ] from ME.  i  [ɪ].
3. **y**  in *fly* [flaɪ] from ME.  i  [ɪ].
4. **ye**  in *dye* [daɪ] from ME.  i  [ɪ].
5. **ei**  in *height* [haɪt] from ME.  i  [ɪ].
6. **eye**  in *eye* [aɪ] from ME.  i  [ɪ].
7. **ey**  in *keyser* [ˈkeɪsə(r)] from ME.  i  [ɪ].
8. **ai**  in *aisle* [aɪl] from ME.  i  [ɪ].
9. **ay**  in *ayah* [aɪə] from ME.  ai, ay  [aɪ].
10. **aye**  in *aye* [aɪ] sporadic origin
11. **uy**  in *buy* [baɪ] sporadic origin
12. **oi**  in *choir* [ˈkwaɪə(r)] sporadic origin
13. **oy**  in *coyote* [ˈkoʊət] loan-words
The Consonants

[s]\n
1. **ou** in loud [laUd] from ME. **ou** [u].
2. **ow** in how [haU] from ME. **ow** [u].
3. **aou** in glaour [djaUær(r)] loan-words
4. **au** in kraut [kraUt] loan-words

[o]\n
1. **oi** in boil [boil] from ME. **oi** [ɔi].
2. **ov** in lovel [lovel] from ME. **ov** [ɔ].
3. **uov** in buoy [bɔi] loan-words

[p]\n
1. **p, pp** in mutton [matn] from ME. **p** [p].
2. **ph** in mutton [matn] loan-words
3. **gh** in hiccough [hɪkəp] analogy

[b]\n
1. **b, bb** in bubble [bʌbəl] from ME. **b** [b].

[t]\n
1. **t** in tell [tel] from ME. **t** [t].
2. **tt** in mutton [matn] from ME. **t** [t].
3. **-ed** in *looked* [lukt] from ME. d [d].

4. **th** in *thyme* [taɪm] loan-words

\[d\]

1. **d, dd** in *burden* [bɜrd] from ME. d [d].

2. **ddh** in *Buddha* [bʌdʰə] loan-words

3. **dh** in *dhow* [dəʊ] loan-words

\[k\]

1. **k** in *folk* [fɔːk] from ME. k [k].

2. **ck** in *sickle* [sɪkəl] from ME. kk [k].

3. **c** in *call* [kɔl] from ME. c [k].

4. **cc** in *accuse* [ækjuz] from ME. c [k].

5. **ch** in *scheme* [skɛm] loan-words

6. **coh** in *Bacchus* [bəkəs] loan-words

7. **gh** in *hough* [hɔuk] loan-words

8. **kh** in *khan* [kən] loan-words

9. **qu** in *pique* [pike] loan-words

\[kw\]

1. **qu** in *queen* [kwɪn] from ME. au [kw].

2. **cqu** in *acquit* [əkwɪt] from ME. au [kw].

3. **cu** in *cuish* [kwɪʃ] from OFr. au [kw].

4. **cho** in *choir* [kwɔː(r)] loan-words

5. **kw** in *awkward* [ɔkwɔ(r)du] compounds
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<td>g</td>
<td>grow</td>
<td>ME.</td>
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<td>2.</td>
<td>gh</td>
<td>ghost</td>
<td>ME.</td>
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<td>3.</td>
<td>gu</td>
<td>guess</td>
<td>ME.</td>
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<td>4.</td>
<td>okg</td>
<td>blackguard</td>
<td>unstressing</td>
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<td>loan-words</td>
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<td>m, mm</td>
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<td>n, nn</td>
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<td>n</td>
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<tr>
<td>1.</td>
<td>l, ll</td>
<td>old</td>
<td>ME.</td>
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</tbody>
</table>
[r]

1. rr in tree [tri] from ME. r [r].
2. rh in rhyme [raim] loan-words
3. rrh in myrrh [m3(r)] loan-words

[f]

1. ff in food [fud] from ME. f [f].
2. gh in rough [raf] from ME. g, gh [X].
3. ph in graph [graf] loan-words
4. pph in Sappho [sæfou] loan-words

[v]

1. v in eve [iv] from ME. v, u [v].
2. vv in navvy [novvi] inventions
3. f in of [of] unstressings
4. ph in nephew [nævju] loan-words

[θ]

1. th in through [θru] from ME. th [θ-θ] t [t].
2. gh in Keighley [kiθli] certain nouns

[ð]

1. th in clothe [klothð] from ME. th [θ-ð] ð [ð].
### [s]

1. **s** in *soon* [sun] from ME.  
   
2. **ss** in *mass* [mæs] from ME.  
   
3. **c** in *fleece* [flis] from ME.  
   
4. **co** in *scene* [sin] loan-words  
   
5. **coh** in *schism* [sɪzəm] loan-words

### [ks]

1. **x** in *axle* [æksəl] from ME.  
2. **xe** in *excell* [ɪksəl] loan-words  
3. **cc** in *accent* [əkˈsɛnt] loan-words  
4. **cs** in *toxsin* [tɔksɪn] loan-words

### [z]

1. **z** in *frozen* [ˈfruːzn] from ME.  
2. **zz** in *dizzy* [ˈdɪzi] from ME.  
3. **s** in *reason* [rɪzn] from ME.  
4. **se** in *possess* [ˈpəzəs] from ME.  
5. **sc** in *discern* [ˈdɪzə(r)ən] from Fr.  
6. **cz** in *czar* [ˈza(r)] from Russ.  
7. **x** in *xylophone*  
   
   [ˈzəˌlɔfən] from Gr.  

   $\overline{\mathbf{E}L}, \overline{\mathbf{E}}$ [ksi].
### [gz]

<table>
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<tr>
<th>#</th>
<th>Word</th>
<th>Pronunciation</th>
<th>Origin</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>x in exempt</td>
<td>[ɡzɛmptˈ]</td>
<td>Latin ξ [ks], Greek ξ [ksi].</td>
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</tbody>
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### [ʃ]

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<th>#</th>
<th>Word</th>
<th>Pronunciation</th>
<th>Origin</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>ah in shoot</td>
<td>[ʃuːt]</td>
<td>ME. sch, sh [ʃ].</td>
</tr>
<tr>
<td>2.</td>
<td>s in nausea</td>
<td>[nəʊˈsɪə]</td>
<td>OFr. s [s].</td>
</tr>
<tr>
<td>3.</td>
<td>ge in issue</td>
<td>[ɪˈʃuː]</td>
<td>OFr. s [s].</td>
</tr>
<tr>
<td>4.</td>
<td>oc in luscious</td>
<td>[ˈlʌʃəs]</td>
<td>Latin oc [sk].</td>
</tr>
<tr>
<td>5.</td>
<td>sch in schist</td>
<td>[ʃɪst]</td>
<td>Latin, Greek, etc.</td>
</tr>
<tr>
<td>6.</td>
<td>c in ocean</td>
<td>[ˈoʊʃən]</td>
<td>ME. c [s].</td>
</tr>
<tr>
<td>7.</td>
<td>t in nation</td>
<td>[ˈneɪʃən]</td>
<td>Latin loan-words</td>
</tr>
<tr>
<td>8.</td>
<td>oh in cache</td>
<td>[kəʃ]</td>
<td>Fr. loan-words</td>
</tr>
<tr>
<td>9.</td>
<td>ok in ski</td>
<td>[ʃi]</td>
<td>Loan-word</td>
</tr>
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</table>

### [ʒ]

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<th>#</th>
<th>Word</th>
<th>Pronunciation</th>
<th>Origin</th>
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</thead>
<tbody>
<tr>
<td>1.</td>
<td>z in azure</td>
<td>[ˈɔːʒə(r)]</td>
<td>ME. s [ʒ].</td>
</tr>
<tr>
<td>2.</td>
<td>s in vision</td>
<td>[ˈvɪʒən]</td>
<td>ME. s [ʒ].</td>
</tr>
<tr>
<td>3.</td>
<td>ss in abscission</td>
<td>[əbˈsɪʒən]</td>
<td>Loan-words</td>
</tr>
<tr>
<td>4.</td>
<td>t in transition</td>
<td>[trəˈziʃən]</td>
<td>Loan-words</td>
</tr>
<tr>
<td>5.</td>
<td>ge in rouge</td>
<td>[ˈruʒ]</td>
<td>Loan-words</td>
</tr>
</tbody>
</table>
[ts]
1. **ch** in **choose** [tʃuz] from ME. **ch** [tʃ].
2. **tch** in **catch** [kætʃ] from ME. **tch** [tʃ].
3. **t** in **bastion** [bæstʃən] from ME. **t** [t].
4. **c** in **cello** [tʃɛlo] loan-words

[kʃ]
1. **x** in **anxious** [æŋkʃəs] from Latin **x** [kʃ].
2. **ct** in **action** [ækʃən] from Fr. **ct** [kʃ].

[dʒ]
1. **g** in **gem** [dʒem] from ME. **g** [dʒ].
2. **gg** in **suggest** [sədʒɪst] from ME. **gg** [dʒ].
3. **dg** in **edge** [ɛdʒ] from ME. **dg** [dʒ].
4. **l** in **jest** [dʒɪst] from ME. **l** [dʒ].
5. **dl** in **hadli** [hædʒi] loan-words
6. **d** in **soldier** [səʊldʒə(r)] loan-words
7. **ch** in **spinach** [spɪnɪdʒ] unstressing

[ʃʒ]
1. **x** in **luxuriate** [lʌgrʊərɪt] from Latin **x** [ks].
[J]

1. \(\mathbf{J}\) in \textit{yew} [\textit{ju}] from ME. \(\mathbf{J}\) [J].
2. \(\mathbf{J}\) in \textit{million} [\textit{mil\'jan}] assimilations
3. \(\mathbf{J}\) in \textit{linear} [\textit{lin\'ja(r)}] assimilations
4. \(\mathbf{J}\) in \textit{hallelujah} [\textit{h\'al\'lu\'ja}] loan-words

[h]

1. \(\mathbf{h}\) in \textit{house} [\textit{haUs}] from ME. \(\mathbf{h}\) [h].
2. \(\mathbf{wh}\) in \textit{whom} [\textit{hum}] from OE. \(\mathbf{hw}\) [hw].

[w]

1. \(\mathbf{w}\) in \textit{wood} [\textit{w\'ud}] from ME. \(\mathbf{w}\) [w].
2. \(\mathbf{wh}\) in \textit{why} [\textit{w\'ai}] from ME. \(\mathbf{wh}\) [\(\mathbf{M}\)].
3. \(\mathbf{(s)}\mathbf{u}\) in \textit{suite} [\textit{swit}] loan-words
4. \(\mathbf{(g)}\mathbf{u}\) in \textit{languish} [\textit{\'l\'an\'gw\'i\'sh}] loan-words
5. \(\mathbf{u}\) in \textit{one} [\textit{\'o\'n\'}] sporadic
6. \(\mathbf{(g)}\mathbf{u}\) in \textit{equal} [\textit{\'e\'kw\'el}] loan-words

[M]

1. \(\mathbf{wh}\) in \textit{when} [\textit{\'m\'en}] from OE. \(\mathbf{hw}\) [hw].
CONCLUSION

In the earliest period of English, when the number of those who could read and write was very small, words were written more or less phonetically, and since there was no accepted spelling, there was more room for private initiative in this respect. It is found, therefore, that even in one and the same dialect there was not the same absolute uniformity of spelling as is found today. But when it is considered that there were no models of writing and no printed texts, which might have imposed uniformity, it is surprising that there was not a much greater variety of spelling than is actually found. This fact may be accounted for on the ground that scribes wrote phonetically and therefore, in so far as they spoke the same dialect, they achieved approximately the same results in spelling.

The earliest script of the Anglo-Saxons was the runic script which they brought with them from the continent of Europe. The runic alphabet was an adaptation

1. Bright, Anglo-Saxon Reader, x; Wright, New English Grammar, 6.
of the Latin alphabet with certain modifications which were necessary, owing to the nature of the writing materials then in use. Carving letters in wood or stone requires considerable skill if there are many curves, and for that reason the curves of an s or r, for example, were straightened out. Writing in runes did not long survive the coming of Christianity and is found, indeed, mainly in inscriptions on hard materials, such as stone, horn or silver. Surviving manuscripts of paper or parchment are written in the Latin alphabet, which was probably introduced with Christianity. The Latin alphabet, however, lacked symbols for some of the commonest of Germanic sounds. In order to supply them, runic symbols were retained for the sounds represented in New English by the th, both voiced and voiceless, and w. These symbols were þ and þ. The latter is now never used, w being always employed. A new symbol, ð, was also introduced for th; but even so, there were not symbols enough for all sounds. Thus for example, there was no symbol for voiced ð [v]; consequently ð did duty for both sounds. So also the symbol ð might stand either for a stop [g] or a spirant [ɣ].

It was natural that the Norman Conquest, which had so profound an influence on the English vocabulary, should also have exercised an influence on the spelling of English, the more so as the majority of the scribes were Normans. In the twelfth century the continental variety of the Latin script began to influence the English script. The general effect of this influence was to give to the English symbols the values which they had in French, and to introduce new symbols with their French values. One of the earliest of the new symbols was ę, which appears side by side with the older ġ and has the value either of a stop, as in *good* [gʊd], or of an affricate, as in *bridge* [brɪdʒ]. The new symbol ę was replaced by th and by degrees ġ also yielded to th, though from the fact that it had come to resemble y in writing, y was often written for it. A survival of this spelling is still to be seen in the inscriptions on signboards such as *ye olde*, etc., in which ye really stands for ę [œ]. In the same way the OE. symbol ȝ [j] had come to be written very much like y, with the consequence that y was often written instead of ȝ as in ME. *year* [jɛːr], OE. *gear* [gær]. The second runic symbol þ [θ] preserved in Old English was quite unfamiliar.

to the Normans, and was early replaced by w, which was really nothing more than two u's interlaced. The Old English sounds rendered by the symbol f were also differentiated by the use of y for the voiced and f for the voiceless consonant.

In the foregoing change in spelling, either an old symbol has been repressed or a new one introduced. The Norman scribes, however, did much more than this. Not being familiar with some of the sounds of English, they tried to render them in their own way. They were not always successful. The Old English palatal or velar spirant, h [ø-ʃ], especially, seems to have given them difficulty, if one may judge by the curious result of their efforts with ch, as in sight, light, etc. Similarly, the OE. as [s] appears to have given trouble, for one finds in Middle English various attempts to render it, as as, sch, sh. Initial h seems also to have been a source of difficulty, for in Middle English texts it is found to be frequently omitted, or inserted in the wrong place, though this has not led to any modification of the normal spelling in New English.

10. Wright, New English Grammar, 120.
Frequently the Norman scribes gave to existing symbols the sound values which attached to them in French. Especially noteworthy in this respect was their treatment of the OE. £, which was always a vowel. The corresponding vowel sound in French was rendered by the symbol u, and the Norman scribes therefore replaced the symbol y in English by u, while the symbol y was either used as a consonant, because of its resemblance to OE. y [j], or else it was used to represent the vowel i, in which case it interchanged in Middle English freely with i. Thus the OE. cyerce [tʃiʃi] appears in Middle English as church [tʃiʃi]. In the majority of words the Old English sound represented by y developed in Middle English into the sound i [i], thus: OE. fyr [fyɹ], ME. fire [fɹəɹ], NE. fire [fɹəɹ]. However, the number of words with u is not very great. In other cases the Middle English development of OE. y was e [ɛ]; both sounds are to be seen in the two words dint [dɛnt] and dent [dɛnt], and the difference is also seen in the pronunciation, though not in the spelling, of -borough [bɹəɹ] or [bɹəɹ] and -bury [bɹɪɹ] or [bɹɪɹ]. Another important change which was due to French influence, though the modern practice was only slowly arrived at, was the distinction between the use of c and k, according to which

c, when it had the sound [tʃ], was written oh; when it had the value of a stop it was written q before a, o, and u, as in came [keim], cot [kɑt - kæt], cut [kʌt], and k before e, i or u, as in kill [kɪl], kettle [kɛt], know [nəʊ] (silent k). On the other hand, in the group cw, c was written q as in queen [kwin]. French influence was also at work in the spelling of such words as ice [aɪs], mice [maɪs], (singular mouse [maʊs]). In these words c has the value of q, which has developed from earlier ts [ts] in French words, from which it spread to native words. Further, the spelling sh [ʃ] for OE. ñ [ʃ] is likewise due to the Norman scribes, as in shall [ʃəl], shun [ʃʌn].

Just as the Norman scribes had substituted the French symbol ù for the OE. y [y], so also they substituted the French ou for the OE. ù [u], in words like hus [hʊs], nu [nu], hu [hu], which now retain this spelling in house [haʊs], thou [ðau], now [nəʊ], how [haʊ]. The spelling was sometimes ow, and for a long time the two spellings were interchangeable, but in New English ow is reserved for the final position in the word (thou [ðau] is exceptional in this respect).

15. Luick, Historische Grammatik, 82.
In one or two cases the conditions under which manuscripts were written were responsible for changes in spelling. Thus, for example, the difficulty of reading certain sound groups such as "im, mi, um, mu, mun," in manuscripts led to certain changes which aimed at rendering the letters more easily legible. The letters chiefly affected were i and u, which presented special difficulties in the vicinity of letters with short down-strokes such as m, n, w, v. One simple way of distinguishing i was to place a dot over it, and another was to prolong it below the line, thus giving an undotted i; the dotted i is the result of a combination of these methods. Yet a third, and earlier, method of distinguishing i was to prolong it above the line, especially when initial, and a survival of this practice is still to be seen in the writing of the pronoun I with a capital. For the same reasons u was often written o, which is preserved in numerous New English words, though the sound is that of u [ʌ]. Thus NE. wonder [ˈwʌndə(r)], come [kʌm], love [laʊv] were in OE. wundor [ˈwʌnder], cuman [ˈkʌmən], lufe [ˈlaʊf]. Sometimes both spellings are to be seen, as in son [sʌn] and sun [sʌn], both of which had u [ʊ] in Old English.

French influence is also to be seen in the spelling of words in *gu*. This *gu* in Central French corresponded to Picardian *w*, and hence there are doublets such as *warden* and *guardian*, *warrant* and *guarantee*. In French the *u* of *gu* was once pronounced, but later became silent, and the spelling with *u* was retained to show that *g* was a stop before the vowels *e* and *i*. This practice was imitated in English both in the spelling of words taken from French, as *guise* and *guide*, and also in native words such as *guest* and *guilt*.20 Another innovation which was due to French influence was the introduction of the symbol *v*. In Old English (cf. p. 255) the sound represented by this symbol was always written *f*. After the Norman Conquest the symbol *u* became common and interchanged freely with *v*, both symbols being regarded for a long time as being the same letter, and both being used either as the vowel or as the consonant.21 It was not until the sixteenth century that efforts were made to restrict *v* to the consonant and *u* to the vowel.22 The sound [dʒ], as in *cudgel* [kædʒel], came to be written *dg* in Middle English, but in French the same sound existed and was written *g*. This spelling with *g* was also introduced

19. Luquiens, Old French Phonology and Morphology, 50.
20. Ibid., 50-51; Krapp, Modern English, Its Growth and Present Use, 33.
into English in French loan-words such as gentle [ˈgentəl], legend [ˈledʒənd], danger [ˈde ndʒə(ɹ)]. Another method of representing the same sound was found in the French orthographic j [ʒ], as journey [ˈdʒə(ɹ)ni], and this spelling is also to be found in numerous words such as judge [dʒʌdʒ], joy [dʒɔɪ], join [dʒɔɪn].

There may be mentioned one more important change in spelling which occurred in Middle English and which still remains, though its significance has been lost. It represents one of the latest attempts to represent in writing differences in pronunciation. In Middle English there existed two distinct long e sounds [ɛ - ẹ] and two long o sounds [o - ọ]. In each case one was open and the other was close and the two did not as a rule rhyme. The close vowel was written e or simply e [ɛ], as in seeke [ˈseki], and the open vowel was written ea [ɛa], as in heal [hɛal]. The close long o was written oo or o [ɔ], as in schole [skɔl], and the open vowel was written oa, as in broad [bɾɔːd]. The two e sounds have fallen together in New English, so that the vowel sounds in sea and be are the same. But the original difference is still indicated by the spelling. Thus there are sea and see, stream and tree. The two o vowels have not, however, fallen together in New English, but have developed

into different sounds. The Middle English o [ɔ], which corresponds to an OE. ɔ [ɔ], has developed into a u [u] sound in New English, as in too [tu], shoe [ʃu], goose [ɡus]. The open sound oe [œ], has developed into the sound which is now heard in NE. rope [roʊp], and is developed from OE. æ [æ], as in OE. bat [bat], NE. boat [bɔut]; OE. ac [ak], NE. oak [ouk].

The next important series of changes in English spelling was occasioned by the revival of learning, when the study of the classical languages led to a strange desire to re-establish the etymological connection between English words and their classical originals. In this way large numbers of words which had been borrowed from French, and which had been long in the language in the form in which they had naturally developed in French, were reconstructed on their classical models. Thus an older dette was re-spelled debt on the model of the Latin debitum, and doute became doubt, describe became describe, and vittailles became victuals. It should be noticed, too, that whereas in the great majority of such cases the re-formed spelling did not in any way affect the pronunciations,

27. Luick, Historische Grammatik, 91.
yet in some words the new spelling occasioned a revised pronunciation—spelling pronunciation. Thus the older *faute* was respelled *fault* and then the *l* was pronounced. The same applies to *describe*. In the same way the old suffix *-cioun* was rewritten *-tion*. Further examples of spelling-pronunciations are: *vault* [vɔlt], *assault* [əsɔlt], *altar* [ɔltə(r)], *herald* [hərəld], *falcon* [fɔlkən], [fɔlkən] and sometimes [fɔkən], *realm* [reɪm]. Other words in which an etymological consonant has been introduced in spelling and yet does not affect the pronunciation are: *psalm* [sæm], [pæm]. The revival of learning was also responsible for certain new symbols for existing sounds. For example, *ph* is used for earlier *f* in words like *phantasy* [fæntəsi] or [fæntəzi] for earlier *fantasy* [fantəzi]; *phantom* [fæntəm] for earlier *fantom* (fæntəm); *ch* appears for *k* in *echo* [ɛkəʊ] and *anchor* (æŋkə(r)), and *sch* for *sc* in words like *school* [skɔl] (formerly *scole* [skoʊl]) and *scholar* [skɔlə(r)] or [skɔlə(r)].

These examples from New English will suffice to show of what a composite character is the English system of spelling, though they only touch the surface of the

subject. It appears that during the Old English period spelling was fairly uniform, thanks partly to the fact that it was to a great extent untrammeled and phonetic, and also to the fact that a single dialect, West Saxon, which forms the basis of the present study in Chapter I, had risen to the dignity of a standard literary language.

In the Middle English, though writers no doubt still sought to write phonetically, uniformity was impossible because the dialects had again come into their own, and it was not until Chaucer's example created a standard language for literature that there was again an approach to uniformity. At the end of the fifteenth century came the first printed books, and with them spelling became to a large extent fixed. But even when Caxton printed his first book in English, he experienced considerable difficulty in deciding upon a uniform system of spelling; for despite the influence of Chaucer, there still existed great uncertainty as to the rendering of certain sounds and the spelling of many words. Thus, as indicated, \( u \) and \( v \) could both be used either as vowel or as consonant,

32. McKnight, Modern English in the Making, 17 and 37.
33. Ibid., 68; Toller, Outlines of the History of the English Language, 246.
34. Krapp, Modern English, Its Growth and Present Use, 236; McKnight, Modern English in the Making, 66.
and a similar confusion of function existed with regard to \( i \) and \( y \). Gradually \( y \) was restricted to consonantal use, and the practice grew up of using \( y \) in the final position and in the vicinity of letters with down-strokes, such as \( m, n, w \), etc.

The introduction of printing ultimately put an end to arbitrary spelling, but it also checked the development of phonetic spelling. On the whole the effect of the new invention was to stereotype spelling and to make it uniform. In this there lay all the positive advantages which flow from uniformity and system; but on the other hand, there was the disadvantage that the spelling very shortly ceased to represent the pronunciation of the spoken language. Pronunciation continued to change, in the usual normal fashion; the spelling lagged behind. Hence New English spelling really represents the sounds of the fifteenth or sixteenth century. The discrepancy which exists in New English between the spelling and the pronunciation of such words as \( \text{laugh} \) \([ləf]\), \([læf]\), \( \text{bough} \) \([bɔːŋ]\), \( \text{sight} \) \([sɑːt]\), \( \text{eight} \) \([eɪt]\), is due to the fact that the spelling of these words was fixed by the early printers, who were themselves somewhat behind the times and adopted a spelling already to some extent traditional.

During the fifteenth, sixteenth and seventeenth centuries experiments were still being made with the purpose of finding the most acceptable spelling system, as is seen in the
Paston Letters, Verney Letters, and others. In the eighteenth century spelling became practically fixed after the publication of Samuel Johnson's Dictionary.

The first printed characters were naturally enough modeled upon those already in existence in the written script. The old symbol $p$, which had come to be written much like a $v$, appeared in print as $v$, as has already been noted. The old symbol $z$ [ʒ - ʒ], had come to be written like a $z$, and appeared as such, at least in Scotland, in the printed character. It remains in such proper names as Mackenzie [mækəni] and Dalziel [dəlˈziːl], in which words it is consonantal. It was after the introduction of printing, also, that the use of the symbols $j$ and $y$ was restricted to consonants and $a$ and $u$ to vowels. During the sixteenth and seventeenth centuries occurred most of the revised spellings under the influence of Latin and Greek. Some of these have already been noted, and to them may be added such typical spellings as *perfect* [pəˈfɛkt] for older *parfit* [paˈfɪt], and *island* [aɪˈlænd] for older *iland* [ɪˈlænd] or [ɪˈlænd].

37. Toller, *Outlines of the History of the English Language*, 173; cf. also Note 2, 173.
39. Ibid., 30.
The spelling of native English words is, in the main, the same today as it was three hundred years ago, and has very often no relation at all to the actual pronunciation. The effect of these spellings in English has been that the spelling of New English is extraordinarily irregular and capricious, so that a great burden is imposed on all who have to learn it. The positive disadvantages of the antiquated spelling are not confined, however, to the difficulties which English-speaking people experience in learning it. They are also to be seen in the added difficulties which such people experience in learning foreign languages, where symbols have values quite different from those which they have in English. Conversely, the speaker of foreign languages is seen to have added difficulties when he undertakes to learn and master the English language.

It is thought that tracing the evolution of English sounds from the Primitive Germanic through Old English and Middle English to the present time; explaining the effects of the Norman invasion, the Renaissance and the fifteenth century sound changes; demonstrating the fact that sound change goes on after spelling becomes fixed; and finally categorizing the spellings in their most lucid arrangements, should aid the native student and the foreign-language student in the easier understanding of English and should open up additional avenues of research and application.
BIBLIOGRAPHY


APPENDIX A

The following table reveals the enunciation of English vowels and diphthongs beginning with the Middle English period progressing through each of the intervening centuries successively up to the twentieth century. It will be observed that some of the vowels and diphthongs made no changes in the course of their history, while others did. Some of the vowels remained monophthongal, but changed in quality, others (monophthongs) became diphthongs; a few of the diphthongs became simplified to monophthongs. The changes in quality of vowel or diphthong to be noticed are of gradual movement, first, developing in the case of the vowels, a parasitic, prefixal on-glide, consisting of unstressed minor vowel of similar quality to the original; as the quality of this on-glide vowel changed, becoming now the first part of a rising diphthong, consequently the main or original vowel also changed in quality and in stress. Slowly the bearer of stress in the beginning of the change relinquished it in favor of the first element of the newly formed diphthong; the result is that new diphthongs thus formed and now

heard in Modern English are falling diphthongs, as in
ME. loud [lauð], ME. [lud], 16th C. [luud], 17th C. and
18th C. [luud], 19th C. [laud].

The spellings of the phonemes representing the
various vowels and diphthongs from the 15th Century
through to the 19th Century are not given; the reason
being that English spelling remained practically unchanged
during this period. It would be unnecessarily repetitious,
therefore, to list for each change in a vowel or diphthong
the same word together with its phonetic analysis. Only
one word, as representing a class, is used, its changes in
pronunciation being indicated in the various and several
centuries by the necessary phonetic symbolization.

The Vowels

<table>
<thead>
<tr>
<th>ME.</th>
<th>15th C.</th>
<th>16th C.</th>
<th>17th C.</th>
<th>18th C.</th>
<th>19th C.</th>
</tr>
</thead>
<tbody>
<tr>
<td>[i]</td>
<td>nine</td>
<td>[i̯]</td>
<td>[i̯, e̯]</td>
<td>[e̯]</td>
<td>[e̯]</td>
</tr>
<tr>
<td>[ı]</td>
<td>lute,</td>
<td>duke,</td>
<td>see</td>
<td>[e̯u]</td>
<td>below.</td>
</tr>
<tr>
<td>[x]</td>
<td>hit</td>
<td>[x]</td>
<td>[x]</td>
<td>[x]</td>
<td>[x]</td>
</tr>
<tr>
<td>[ơ]</td>
<td>flat</td>
<td>[ơ]</td>
<td>[ơ]</td>
<td>[ơ]</td>
<td>[ơ]</td>
</tr>
<tr>
<td>[ę]</td>
<td>tree</td>
<td>[ę, ı]</td>
<td>[ı]</td>
<td>[ı]</td>
<td>[ı]</td>
</tr>
<tr>
<td>[ɛ]</td>
<td>bed</td>
<td>[ɛ]</td>
<td>[ɛ]</td>
<td>[ɛ]</td>
<td>[ɛ]</td>
</tr>
</tbody>
</table>

* above a symbol indicates that it is un-
stressed. The  is always unstressed.
<table>
<thead>
<tr>
<th>ME. 15th C.</th>
<th>16th C.</th>
<th>17th C.</th>
<th>18th C.</th>
<th>19th C.</th>
</tr>
</thead>
<tbody>
<tr>
<td>[e:]) leave [e:]</td>
<td>[e:]</td>
<td>[e:, e, i]</td>
<td>[i]</td>
<td>[i]</td>
</tr>
<tr>
<td>[a] hand [a]</td>
<td>[a, a]</td>
<td>[a]</td>
<td>[a]</td>
<td>[a]</td>
</tr>
<tr>
<td>[a] name [a]</td>
<td>[a, a]</td>
<td>[a, e]</td>
<td>[e]</td>
<td>[e, e]</td>
</tr>
<tr>
<td>[p] fox [p]</td>
<td>[p]</td>
<td>[p]</td>
<td>[p]</td>
<td>[p, a]</td>
</tr>
<tr>
<td>[o] rose [o]</td>
<td>[o]</td>
<td>[o, o]</td>
<td>[o]</td>
<td>[o, o]</td>
</tr>
<tr>
<td>[o] goose [o, u]</td>
<td>[u]</td>
<td>[u]</td>
<td>[u]</td>
<td>[u, u]</td>
</tr>
<tr>
<td>[U] love [U]</td>
<td>[U]</td>
<td>[U, o]</td>
<td>[a]</td>
<td>[a]</td>
</tr>
<tr>
<td>[U] cloud [U]</td>
<td>[U, U]</td>
<td>[U]</td>
<td>[U]</td>
<td>[U]</td>
</tr>
</tbody>
</table>

The Diphthongs

<table>
<thead>
<tr>
<th>[eU] hew [eU, y]</th>
<th>[iU, y]</th>
<th>[iU, ju, y]</th>
<th>[ju]</th>
<th>[ju, jUu]</th>
</tr>
</thead>
<tbody>
<tr>
<td>[U] island [iU]</td>
<td>[iU]</td>
<td>[iU, i]</td>
<td>[a]</td>
<td>[a]</td>
</tr>
<tr>
<td>[iU] steward [iU]</td>
<td>[iU]</td>
<td>[iU, jU]</td>
<td>[jU]</td>
<td>[jU]</td>
</tr>
<tr>
<td>[e:U] dew [e:U]</td>
<td>[e:U]</td>
<td>[e:U, iU]</td>
<td>[ju]</td>
<td>[ju, jUu]</td>
</tr>
<tr>
<td>[a1] may [a1]</td>
<td>[a1, a1, a]</td>
<td>[a1, a]</td>
<td>[a]</td>
<td>[a]</td>
</tr>
<tr>
<td>[au] crawl [au]</td>
<td>[au, a]</td>
<td>[a]</td>
<td>[a]</td>
<td>[a]</td>
</tr>
<tr>
<td>[D] snow [D]</td>
<td>[ou, o]</td>
<td>[ou, o]</td>
<td>[o]</td>
<td>[o, ou, o]</td>
</tr>
<tr>
<td>[oi] noise [oi]</td>
<td>[oi]</td>
<td>[oi]</td>
<td>[oi]</td>
<td>[oi]</td>
</tr>
<tr>
<td>[ou] low [ou]</td>
<td>[ou]</td>
<td>[ou, o]</td>
<td>[ou]</td>
<td>[ou]</td>
</tr>
<tr>
<td>[ui] boil [ui]</td>
<td>[ui, ai]</td>
<td>[ai]</td>
<td>[ai, oi]</td>
<td>[oi]</td>
</tr>
<tr>
<td>[ei] key [ei]</td>
<td>[e]</td>
<td>[e]</td>
<td>[e]</td>
<td>[e, i]</td>
</tr>
</tbody>
</table>
The phonetic values of the various NE. vowels and vowel combinations, consonants and consonant combinations follow.

Based upon the various spellings of the NE. vowel phonemes the tables that follow reveal the phonemes that emerge from the ordinary orthographical vowel system of NE. a, e, i, o, u and the semi-vowels y and w together with the compound-variations in use.

The Vowels

<table>
<thead>
<tr>
<th>The Symbols</th>
<th>The Phonetic Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. a .......... [i]</td>
<td>in palace [pælɪs]</td>
</tr>
<tr>
<td></td>
<td>[ei] in made [meɪd]</td>
</tr>
<tr>
<td></td>
<td>[i] in any [æni]</td>
</tr>
<tr>
<td></td>
<td>[æ] in glad [gлад]</td>
</tr>
<tr>
<td></td>
<td>[a] in past [pɑst]</td>
</tr>
<tr>
<td></td>
<td>[a] in father [ˈfɑðə(r)]</td>
</tr>
<tr>
<td></td>
<td>[u] in swan [swɑn - swɑn]</td>
</tr>
<tr>
<td></td>
<td>[ɔ] in walk [wɔk]</td>
</tr>
<tr>
<td></td>
<td>[ə] in above [əˈbʌv]</td>
</tr>
<tr>
<td>2. a + r .......... [ɛə]</td>
<td>in care [kɛə(r) - kəə(r)]</td>
</tr>
<tr>
<td></td>
<td>[ɔə] in warm [wɔrɔ(r)m]</td>
</tr>
</tbody>
</table>
3. ai ........................ [aɪ] in captain [ˈkæptɪn-

[æ] in laid [leɪd]
[ɛ] in said [sæd]
[æ] in plaid [plæd]
[ə] in Britain [ˈbrɪtən]
[æ] in aisle [æɪl]

4. ai + r........... [ɛə] in fair [fɛə(r) - fær(r)]

5. ay.................. [aɪ] in quay [kiː]
[ɛɪ] in Friday [ˈfraɪdi]
[æ] in play [pleɪ]
[æ] in save [seɪv]
[aɪ] in bye, by [baɪ]

6. ay + r... [ɛə - æə] in Ayr [ɛə(r) - æə(r)]

7. ae................. [e] in Caesar [ˈsɛsə(r)]
[ɛ] in Gaelic [ˈgɛlɪk]
[æ] in Aetna [ˈeɪtnə]

8. ae + r............ [ɛə] in aerie [ˈɛəri]

9. aa................... [æ] in Isaac [ˈiːzək]
[ɛ] in prayer [ˈpleɪə]
[æ] in salaam [ˈsæləm]
[ə] in Isaac [ˈiːzək]
[æ] in baa [baɪ]

10. aa + r...[ɛə - æə] in Aaron [ˈeɪrən]

11. au.................. [əʊ] in gauge [ɡeɪdʒ]
[æ] in laugh [laʃ]
[a] in laugh [lɑʃ]
| 12. **ao** | in **laurel** [lor'l] |
|  |  |
| 13. **au** | in **Calve** [kiz] |
| 14. **au** | in **glamor** [dʒəˈmɔr] |
| 15. **aw** | in **law** [lɔː] |
| 16. **awe** | in **awe** [ɔː] |
| 17. **e** | in **even** [ˈɪvən] |
|  | in **pretty** [ˈpɹɪtɪ] |
|  | in **eh** [ə] |
|  | in **bed** [bed] |
|  | in **sergeant** [səˈrɛŋt] |
|  | in **silent** [ˈsɪlənt] |
| 18. **e + r** | in **here** [hɪˈə(r)] |
|  | in **there** [ðəˈrɛ(r)] |
|  | in **Derby** [ˈdɜrbɪ] |
|  | in **her** [hɜː] |
|  | in **hither** [hɪˈðə(r)] |
| 19. **ee** | in **seem** [sɪm] |
|  | in **coffee** [ˈkɔfɪ - kəfɪ - kafɪ] |
[ei] in negligence [negliˈʒeɪn]  

20. ee + r.......... [i:] in deer [dɪə(r)]

21. ei……………… [i] in seize [sɪz]

[ai] in foreign [fɒrɪn]
[ei] in reign [reɪn]
[ɛ] in heifer [ˈheɪfə(r)]
[ai] in height [haɪt]

22. ei + r.......... [i:] in weird [wɪə(r)d]

[ɛə] in their [ˈðeə(r)]

23. ey……………… [i] in key [ki]

[ai] in money [ˈmʌnɪ]
[ei] in they [ˈðeɪ]
[ɛ] in Reynolds [rɪnəʊldz]
[ai] in eves [ɛvəz]

24. ey + r.......... [ɛə] in eyrie [ˈɛəri]

25. ea……………… [i] in speak [spɪk]

[ai] in guinea [ˈɡɪnɪ]
[ei] in steak [steɪk]
[ɛ] in head [hɛd]
[ə] in heart [hɑː(r)t]
[ɔ] in forehead [ˈfɔːrˌdeɪ - ˈfɔːrd - ˈfɔːrd]

26. ea + r.......... [ɛə] in dear [dɪə(r)]

[ɛə] in pear [pɛə(r) - pɛə(r)]
[ɜː] in learn [lɜːn]
<table>
<thead>
<tr>
<th>No.</th>
<th>Sound</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>27.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| 28. | 

| 29. | 

| 30. | 

| 31. | 

| 32. | 

| 33. | 

| 34. | 

| 35. | 


36. 1 + r ............  [ə] in See Yorkshire above
       [3] in stir [stə]}
37. ie ...............  [i] in friend [frend]
       [i] in sieve [sив]
       [ə] in friend [frend]
       [aɪ] in lie [laɪ]
       [ə] in mischief [mɪʃˈɪf]
33. ie + r ............  [iə] in bier [baɪə(r)]
39. ia .................  [ɪ] in marriage [məˈrɪdʒ]
       [ə] in parliament
       [ˈpɑ(r)ləmənt]
40. ieu ...............  [juː] in adieu [əˈdjuː]
41. ieu ...............  [juː] in view [vjuː]
42. o .................  [ɔ] in women [ˈwʊmən]
       [ə] in violin [ˈvaiəlin]
       [ɑː] in pod [pɑd – paɪd]
       [ɑː] in hot [hɑt – hɑt]
       [ɔ] in lost [lɔst]
       [ou] in host [həʊst]
       [u] in wolf [wʊlf]
       [u] in lose [luz]
       [ʌ] in son [sʌn]
43. o + r .............  [ɔə] in horse [hɔs(r)s]
<table>
<thead>
<tr>
<th>No.</th>
<th>Vowel</th>
<th>Word</th>
<th>Pronunciation</th>
</tr>
</thead>
<tbody>
<tr>
<td>44.</td>
<td>oo</td>
<td>broad</td>
<td>[bred]</td>
</tr>
<tr>
<td>45.</td>
<td>oo + e</td>
<td>board</td>
<td>[bɔːd]</td>
</tr>
<tr>
<td>46.</td>
<td>oo</td>
<td>Oedipus</td>
<td>[ˌɔdiˈpʌs]</td>
</tr>
<tr>
<td>47.</td>
<td>oo + e</td>
<td>Boer</td>
<td>[bʊə(r)]</td>
</tr>
<tr>
<td>48.</td>
<td>oɪ</td>
<td>turquoise</td>
<td>[ˈtɜːrkwəʊz]</td>
</tr>
<tr>
<td>49.</td>
<td>oɪ</td>
<td>choir</td>
<td>[ˈkwaɪə(r)]</td>
</tr>
<tr>
<td>50.</td>
<td>oo</td>
<td>blood</td>
<td>[blʌd]</td>
</tr>
<tr>
<td>51.</td>
<td>oo + e</td>
<td>door</td>
<td>[dɔːr]</td>
</tr>
<tr>
<td>52.</td>
<td>ou</td>
<td>about</td>
<td>[əˈbaʊt]</td>
</tr>
</tbody>
</table>

[3:] in word [wɔːd]  
[ə] in labor [ˈleɪbə(r)]  
[ɔʊ] in boat [bɔʊt]  
[ə] in cupboard [ˈkʌbə(r)duː]  
[ɔe] in board [bɔː(r)duː]  
[ɪ] in doee [doʊ]  
[ou] in toe [təʊ]  
[u] in shoe [ʃu]  
[ɪ] in Phoebe [ˈfɪbə]  
[ʊ] in Boer [bʊə(r)]  
[ʊɪ] in turquoise [tʊə(r)kɪz]  
[wæə] in choir [kwaɪə(r)]  
[ə] in blood [blʌd]  
[ou] in brooch [bʁʊtʃ]  
[u] in foot [fʊt]  
[u] in food [fud]  
[ʊə] in door [dɔː(r)]  
[ʊə] in floor [floʊ(r)]  
[ʊə] in door [dɔː(r)]  
[aʊ] in about [əˈbaʊt]  
[v] in lough [ˈlaʊ]
53. **ou + r.**

- [au] in **hour** ([auə(r)])
- [ɔə] in **four** ([foə(r)])
- [uə] in **course** ([kouə(r)s])
- [uə] in **your** ([juə(r)])
- [ɔ:] in **scourge** ([skə:dʒ])
- [ɔ] in **colour** ([kələ(r)])

54. **ow.**

- [au] in **how** ([haʊ])
- [p-ə] in **knowledge** ([nəldʒ - nəldʒ])
- [ou] in **snow** ([snoʊ])
- [ə] in **fellow** ([ˈfelər])

55. **oy.**

- [ɔi] in **toy** ([tɔi])

56. **oeu.**

- [u] in **manoeuvre** ([mænəuvə(r)])
- [ju] in **manoeuvre** ([mænjəuvə(r)])

57. **owe.**

- [ou] in **bows** ([boʊz])

58. **u.**

- [I] in **busy** ([ˈbɪzi])
- [ə] in **bury** ([ˈbɜri])
- [ɔ] in **nature** ([ˈnætə(r)])
- [ʌ] in **slut** ([slʌt])
- [U] in **full** ([fʊl])
[u] in rude [rød]
[Ju-u] in duke [djuk - duk]

59. u + r ........... [œ] in figure [fɪgə(r) - fɪgjə(r)]
[3:] in turn [tɜ:n]
[œа] in sure [ʃuə(r)]
[Juə] in cure [kjuə(r)]

60. ui .............. [i] in guilt [ɡɪlt]
[u] in fruit [fruːt]
[Ju-u] in suit [sjuːt - sut]
[a:] in guile [ɡaɪl]

61. ue ............... [ε] in guess [ɡɛs]
[U] in issue [iʃ]}
[Ju] in value [vælju]
[u] in blue [blu]
[Ju-u] in due [duː]
[(w)ei] in suede [swiːd]

62. ua .............. [(w)æ] in quaff [kwɑf]
[(w)ei] in suasion [swəˈʃən]

63. ua + r ............ [a] in guard [ɡɑ(r)d]
[aʊ] in guard [ɡɑd(r)d]

64. uy ............... [aɪ] in buy [baɪ]

65. uoy ............... [ɔ] in buoy [bɔɪ]

66. y ............... [i] in volept [ɪkˈlept]
[i] in city [ˈsɪti]
[aɪ] in cycle [ˈsækəl]
282

\[ \text{[ø - i]} \text{ in } \text{analysis} \]

\[ [\text{ænæləsɪs} - \text{ænælɪsɪs}] \]

67. \( y + \text{æ} \) ...........

\[ [3:] \text{ in } \text{myrtle} \ [\text{m}3(\text{r})\text{t}] \]

\[ [\text{æ}] \text{ in } \text{satyr} \ [\text{seɪtə(r)}] \]

68. \( \text{ve} \) ...........

\[ [\text{æi}] \text{ in } \text{lye} \ [\text{læ}'] \]

The Consonants

1. \( \text{p} \) ...........

\[ [\text{p}] \text{ in } \text{staple} \ [\text{stæpl}] \]

2. \( \text{pp} \) ...........

\[ [\text{p}] \text{ in } \text{puppy} \ [\text{pʌpi}] \]

3. \( \text{ph} \) ...........

\[ [\text{p}] \text{ in } \text{shepherd} \ [\text{ʃpə(r)d}] \]

\[ [\text{f}] \text{ in } \text{graphic} \ [\text{ɡrɑfɪk}] \]

\[ [\text{v}] \text{ in } \text{nephew} \ [\text{nɛvjuˈ}} \text{ Br.} \]

4. \( \text{pph} \) ...........

\[ [\text{f}] \text{ in } \text{sapphire} \ [\text{ˈsæfəra(r)}] \]

5. \( \text{pt} \) ...........

\[ [\text{t}] \text{ in } \text{receipt} \ [\text{rɪˈsiːt}] \]

6. \( \text{pb} \) ...........

\[ [\text{b}] \text{ in } \text{cupboard} \ [\text{kʌpə(r)d}] \]

7. \( \text{ps} \) ...........

\[ [\text{s}] \text{ in } \text{psalm} \ [\text{sam}] \]

8. \( \text{pn} \) ...........

\[ [\text{n}] \text{ in } \text{pneuma} \ [\text{njuˈmæ} \]

9. \( \text{phth} \) ...........

\[ [\text{t}] \text{ in } \text{phthisis} \ [\text{ˈtæθrɪsɪs}] \]

\[ [\text{θ}] \text{ in } \text{phthisis} \ [\text{θæθrɪsɪs}] \]

10. \( \text{b} \) ...........

\[ [\text{b}] \text{ in } \text{baby} \ [\text{beɪbi}] \]

11. \( \text{bt} \) ...........

\[ [\text{t}] \text{ in } \text{debt} \ [\text{dɛt}] \]

12. \( \text{bb} \) ...........

\[ [\text{b}] \text{ in } \text{abbey} \ [\text{æbi}] \]

13. \( \text{bh} \) ...........

\[ [\text{b}] \text{ in } \text{bhang} \ [\text{bæŋ}] \]

14. \( \text{bd} \) ...........

\[ [\text{d}] \text{ in } \text{bdellium} \ [\text{dɛlˈliəm}] \]

15. \( \text{t} \) ...........

\[ [\text{t}] \text{ in } \text{mite} \ [\text{maɪt}] \]
16. **tt**.............  [t] in **often**  [ɔfən]
17. **tt**.............  [t] in **setter**  [ˈsetə(r)]
18. **toh**............  [t] in **satchel**  [ˈsætʃəl]
19. **th**.............  [θ] in **method**  [ˈmeθəd]
     [ŋ] in **mother**  [ˈmʌðə(r)]
     [t] in **Thames**  [ˈθeɪmz]
     [tθ] in **eighth**  [eɪtθ]
20. **tz**.............  [ts] in **waltz**  [ˈwɔltz]
21. **d**.............  [d] in **lady**  [ˈleɪdi]
     [t] in **soap**  [ˈsoʊp]
     [dʒ] in **soldier**  [ˈsɔldjə(r)]
22. **dn**.............  [n] in **Dnieper**  [ˈdɲjə(r)]
23. **dd**.............  [d] in **adding**  [ˈædɪŋ]
24. **ddh**............  [d] in **Buddha**  [ˈbʊdə]
25. **dg**.............  [dʒ] in **bridge**  [ˈbrɪdʒ]
26. **dʒ**.............  [dʒ] in **adjudicate**  [ˌædʒiˈdeɪt]
27. **dz**.............  [dz] in **adze**  [ˈædz]
28. **k**.............  [k] in **taken**  [ˈteɪkən]
29. **kn**.............  [ŋ] in **knee**  [ni]
30. **kh**.............  [k] in **khaki**  [ˈkʰɛkɑɪ]
31. **kw**.............  [kw] in **awkward**  [ˈɔkwərd]
32. **g**.............  [g] in **sugar**  [ˈʃʊɡə(r)]
     [ʒ] in **rouge**  [ˈruʒ]
<table>
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<th>No.</th>
<th>Word</th>
<th>Pronunciation</th>
<th>Example</th>
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<td>33.</td>
<td>gn.</td>
<td>[ŋ] in gnaw [ŋə]</td>
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<tr>
<td>34.</td>
<td>gm.</td>
<td>[ŋm] in phlegm [flem]</td>
<td></td>
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<tr>
<td>35.</td>
<td>gg.</td>
<td>[ŋg] in nagger [næɡə(r)]</td>
<td>[ŋɡ] in suggest [sədʒest]</td>
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<td>36.</td>
<td>gh.</td>
<td>[g] in ghoul [gul]</td>
<td>[f] in cough [kɒf]</td>
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<tr>
<td></td>
<td></td>
<td>[ŋ] in hiccough [hɪkɒf]</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>[k] in shough [ʃk]</td>
<td></td>
</tr>
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<td></td>
<td></td>
<td>[θ] in Keighley [kiθli]</td>
<td></td>
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<td>37.</td>
<td>gh (silent)</td>
<td>in night [naɪt]</td>
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<td>39.</td>
<td>gu.</td>
<td>[g] in guess [gɛs]</td>
<td>[ŋw] in language [ˈlæŋɡwɪdʒ]</td>
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<td>39.</td>
<td>gu (silent)</td>
<td>in tongue [tuŋ]</td>
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<tr>
<td>40.</td>
<td>gw.</td>
<td>[gw] in Gwynn [gwaɪn]</td>
<td></td>
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<td>41.</td>
<td>m.</td>
<td>[m] in oamal [ˈoaməl]</td>
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<td>42.</td>
<td>mb.</td>
<td>[m] in limb [lɪm]</td>
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<td>43.</td>
<td>mn.</td>
<td>[n] in mnemonics [ˈmɪnəmɪks]</td>
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<td>44.</td>
<td>mm.</td>
<td>[m] in summon [ˈsʌmən]</td>
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<td>45.</td>
<td>n.</td>
<td>[n] in many [ˈmæni]</td>
<td>[ŋ] in drink [drɪŋk]</td>
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<td></td>
<td></td>
<td>[m] in Banff [ˈbænf]</td>
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<td>46.</td>
<td>ng.</td>
<td>[ŋ] in singer [ˈsɪŋə(r)]</td>
<td>[ŋɡ] in finger [ˈfɪŋə(r)]</td>
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<tr>
<td>47.</td>
<td>nn.</td>
<td>[n] in penny [ˈpɛni]</td>
<td></td>
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<td>48.</td>
<td>l.</td>
<td>[l] in lily [ˈlɪli]</td>
<td></td>
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</table>
49. ln............. [l] in kiln [kɪln]
50. lm............. [m] in calm [kæm]
51. lf............. [f] in half [hɑf]
52. lf (silent)... in halfpenny [hælpən]n
53. lk............. [k] in folk [fɒlk]
54. ll............. [l] in pallid [pəlɪd]
55. f............. [v] in of [ɒf]
56. ff............. [v] in offer [ɒfə(r)]
57. v............. [v] in save [seɪv]
59. r............. [ə] in very [ˈverɪ]
60. r (silent).... in worsted [ˈwɜstɪd]
61. rr............. [r] in marry [ˈmɑrɪ]
62. rrh............ [r] in Pyrrhic [prɪrɪk]
63. g............. [z] in casing [ˈkeɪ sɪŋ]
64. st............. [s] in listen [ˈlɪsnt]
65. g (silent)..... in isle [aɪl]
66. pe (silent)... in corpse [kɔːp]
67. **sa**............  
[s] in *lesson* [lesn]  
[z] in *possess* [pəsəs]  
[s] in *passion* [pəʃən]  
[z] in *abscission*  
[əbsɪʃən]

68. **sa**............  
[s] in *science* [saɪəns(ə)t]  
[z] in *discern* [dɪsən(r)n]  
[sk] in *rascal* [ræskəl]  
[s] in *conscience*  
[kənsən(t)s]

69. **sch**...........  
[s] in *schism* [sɪzəm]  
[s] in *schedule* [ʃedʒul] Br.  
[sk] in *school* [skul]

70. **sh**............  
[ʃ] in *bishop* [bɪʃəp]

71. **sk**............  
[ʃ] in *ski* [skɪ]  
[sk] in *sky* [skeɪ]

72. **su**............  
[sw] in *suite* [swit]

73. **z**.............  
[z] in *lazy* [ləzi]  
[ʒ] in *azure* [ɔːz(ə)r]  
[ʃ] in *dizzy* [dɪzɪ]

74. **zz**............  
[ʃ] in *mezzo* [mɛdzə]  
[ʃ] in *mezzo* [mɛdzə]

75. **cz**............  
[z] in *czar* [za(r)]  
[ʃ] in *tocsin* [təksɪn]

76. **ce**............  
[ks] in *crescendo* [kresəndə]  
[kʃ] in *crescendo* [kresəndə]

77. **ct**............  
[kʃ] in *cui̇rass* [kwɪərəs]
79. ɡ......... [k] in bacon [ˈbeɪkən]

   [s] in vice [vaɪs]

   [ʃ] in ocean [ˈouʒən]

   [ʃ] in cello [ˈsɛlo]

80. ɒn......... [n] in oneue [ˈnʌs]

81. ɒt......... [t] in indiot [ˈɪndət]

82. ɒk......... [k] in tobacco [ˈtəbəkə]

   [ks] in accept [ˈækspət]

83. ɒch......... [k] in Bacchus [ˈbækəs]

84. ɒch......... [k] in echo [ˈɛkəʊ]

   [ʃ] in machine [ˈmæʃən]

   [tʃ] in rich [rɪtʃ]

   [dʒ] in Greenwich [ˈgrɪnədʒ]

85. ɒh (silent)...

   in drachm [ˈdrɑːm]

   in yacht [jat]

   in fuchsia [ˈfjuʃə]

86. ɒk......... [k] in back [bæk]

87. ɒk (silent)...

   in blackguard

   [bɭkɚ(r)ɚd]

88. ɒku......... [kw] in acquaint [ˈækwənt]

89. ɒu......... [kw] in equal [iˈkwɛl]

   [k] in etiquette [ˈɛtɪkwət]

90. ɪ......... [dʒ] in major [ˈmeɪdʒə(r)]

   [ʃ] in hallelujah

   [ˈhæləˌluˈja]?

91. ʏ......... [j] in you [ju]
92. w. ................ [w] in twin [twin]
93. w. ................ [r] in wren [wren]
94. w. ................ [w] in why [wai], exp.
    [M] in what [Mwt]
    [h] in who [hu]
95. x. ................ [z] in Xenophon [zenafon]
    [ks] in text [tekst]
    [kʃ] in complexion
        [kpleʃən]
    [gz] in exact [ıɡzekt]
    [gʃ] in luxurious
        [ləˈʃərəs]
96. xe. ............... [ks] in excel [ıksəl]
Malcolm Sylvan Coxe was born June 30, 1907, at Watson, Louisiana, where he received his early education. He received the degree of Bachelor of Arts from Louisiana State University in June, 1936 and the degree of Master of Arts from the same institution in August, 1937. In August, 1937 he received an Exchange Scholarship from the Institute of International Education for study in Philips-Universität in Marburg and in the Hansa Universität in Hamburg.

Upon his return to the United States in 1938 he received a teaching appointment in the College of the City of New York, Brooklyn College Branch, where he has since been employed in the Department of Speech.
EXAMINATION AND THESIS REPORT

Candidate: Malcolm S. Cox

Major Field: Speech

Title of Thesis: A History of the Spelling of English Phonemes

Approved:

[Signature]
Major Professor and Chairman

[Signature]
Dean of the Graduate School

EXAMINING COMMITTEE:

[Signatures]

Date of Examination:

May 11, 1942