dummy page 0

Kernewek Kemmyn

CORNISH FOR THE TWENTY-FIRST CENTURY

by

Paul Dunbar

and

Ken George

CORNISH LANGUAGE BOARD

1997

First published in 1997 by
THE CORNISH LANGUAGE BOARD

The views expressed in this book are those of the authors, and do not necessarily reflect the corporate view of the Cornish Language Board.

ISBN 0 907 064 71 X

Uploaded to Ken George's website in 2025,
with updates in blue

This book was produced largely as a response to Nicholas Williams' views on Cornish, and especially his criticisms of ***Kernewek Kemmyn***. Over 25 years have passed since its production, and more has been discovered about the language. The major text *Bewnans Ke*, which was unknown when the first edition of this book appeared, is a useful test-bed for the controversial questions discussed here.

Points meriting comment are numbered in blue in the text, and discussed at the end of each chapter.

The authors

Paul Dunbar is a member of the Cornish Language Board and a Bard of the Cornish Gorsedd. He is interested in pedagogic techniques for the teaching of Cornish, and tries out his ideas on a class of learners in Looe.

He is skilled in boat-building and is at present owner of a vineyard near Liskeard. He is the editor of a political magazine named *Kernow.* It is remarkable that he has been able to find time to work on this book, since he is Mebyon Kernow's Parliamentary Prospective Candidate for S.E. Cornwall.

Ken George is a member of the Cornish Language Board and a Bard of the Cornish Gorsedd. He has carried out extensive research on various aspects of Cornish, and presented the results at eight international Celtic conferences. He has published over fifty items on Celtic linguistics, including two books and some literary works.

Dr George is Principal Lecturer in Ocean Science at the Institute of Marine Studies, University of Plymouth.

Paul has moved to mid-Cornwall, and Ken has retired.

CONTENTS

			PAGE
	Background	by Ken George	6
	Foreword	by Ken George	7
	Foreword	by Paul Dunbar	8
GENERAL			
1	Dr Williams' twenty-six points of criticism		9
2	Ideology		13
3	A phonemic orthography		17
4	The prosodic shift		20
LONG VOWELS			
5	***tros*** and ***troes***		28
6	***bydh*** and ***bedh***		36
7	***dhis***		43
8	***tas***		45
9	***ki; my*** and ***ty***		49
CONSONANTS			
10	***kann*** v. ***kan*** and ***kannav*** v. ***kanav***		54
11	***gwella*** v. ***gwelav***		64
12	Middle Cornish *pysy* and *pygy*		68
13	***boghosek***		76
UNSTRESSED VOWELS			
14	***mires*** and ***gwella***		83
15	Rhymes		93

y ~ *e* ALTERNATION

16 Middle Cornish *gwyth* and *gwethen* 101

DIPHTHONGS

17 ***lu, liw, lyw*** and ***lew*** 110

18 ***klywes*** and ***bywnans*** 120

19 Middle Cornish *fowt* and *faut* 126

20 ***treys*** and ***payn*** 130

ORTHOGRAPHY

21 ***kas*** and ***jentyl*** 136

22 Improving the orthography of Middle Cornish 142

23 Deviations from the phonemic principle 147

24 ***penn, alena*** and ***gwydhenn*** 151

25 ***rag*** or *rak* ? 156

26 Comparison of spelling systems 161

SUMMING UP

27 Concluding remarks 171

28 ***Ger warlergh*** by Paul Dunbar 176

APPENDICES

A1 Orthographic profiles by Ken George 178

A2 Phonetic symbols 179

A3 Glossary of technical terms 185

A4 A note to computerphobics by Paul Dunbar 188

A5 References 189

Background by Ken George

The Cornish language was spoken traditionally until about 1800. During the nineteenth century, a few people, particularly in West Penwith, had a traditional knowledge of scraps of the language, but as far as is known, they did not and could not converse in Cornish. Scholars published printed versions of some of the mystery plays in Middle Cornish. In 1904, Henry Jenner published his *Handbook of the Cornish Language,* in which he advocated that Cornishmen should learn Cornish; this is regarded as the start of the Cornish revival.

Between the two world wars, Robert Morton Nance and A.S.D. Smith examined minutely all the available texts in traditional Cornish, from the twelfth to the eighteenth centuries. They reconstructed Cornish grammar and syntax, using as a base the Cornish of the Middle Ages (Middle Cornish), rather than that of the seventeenth and eighteenth centuries (Late Cornish). A spelling system was devised, called Unified Cornish, which was based mainly on that of the three mystery plays known collectively as the *Ordinalia.* This spelling system was used for almost all publications in Cornish from about 1929 to about 1988.

During the 1970s, the emphasis passed from the written to the spoken language. Cornish speakers began to question the accuracy of Nance's recommended pronunciation. I took it upon myself to examine the problem in great detail, and successfully presented the results of my research as a doctoral thesis at the University of Western Brittany. Then in 1986, I wrote a book, *The Pronunciation and Spelling of Revived Cornish,* which included three recommendations to the Cornish Language Board:

(i) the grammar of Revived Cornish continue to be based on that of Middle Cornish;
(ii) a phonological base for Revived Cornish be defined, approximating the pronunciation of the traditional language *c.*1500;
(iii) the orthography be modified so as to fit the phonological base, and form a system which aspires to phonemic perfection.

These recommendations were discussed at a public meeting. After this, in July 1988, they were considered by the Cornish Language Board; all members present at the meeting voted in favour except one. A programme was then put in hand to change to the new orthography, which, at the suggestion of John King, became known as ***Kernewek Kemmyn***. Over ninety publications in the new spelling have been produced, notably a new grammar and a new Cornish-English dictionary (known as *GLKK,* ***Gerlyver Kernewek Kemmyn****).*

Although most Cornish speakers have now changed to the new orthography, a small minority prefer to stick to Unified Cornish. This rump includes some who learned Cornish many years ago, and some who were living away from Cornwall when ***Kernewek Kemmyn*** was introduced. Another small group have rejected the idea of a Middle Cornish base for the revived language, and prefer a form of Cornish based on Late Cornish.

In 1995, a book appeared in which these three forms of Revived Cornish received criticism. ***Kernewek Kemmyn*** was severely criticized. This book was *Cornish Today,* written by Dr Nicholas Williams, who had learned Cornish some 35 years before: in it the author puts forward his own orthography, called Unified Cornish Revised (UCR). This reply refutes the bulk of Dr Williams' criticisms of ***Kernewek Kemmyn***, and in doing so, provides additional material, not previously published, on the theoretical and statistical foundation of ***Kernewek Kemmyn***.

Foreword by Ken George

Nicholas Williams' monograph *Cornish Today* appeared at the Cornish Gorsedd in September 1995. For a year I confined my response to short articles, and to a talk entitled *Feet, Noises and Dud Light-Bulbs* at the Cornish Language Weekend in March 1996. These had the effect of reassuring most users of ***Kernewek Kemmyn.*** Then at the time of the 1996 Gorsedd, Dr Williams delivered his memorable lecture in Lostwithiel, misleadingly entitled "Which Cornish ?", for it was but a tirade against ***Kernewek Kemmyn***. It may well have been this event which triggered us into action. Taunts like "Dr George tells us he is writing a book in which he will disprove all my criticisms of Kernewek Kemmyn. Since a comprehensive refutation is impossible, we can be sure that no such work will never appear." caused us to prepare a longer response. Paul and I have taken six months to write this refutation of Dr Williams' criticisms. This time, one feels, could have been better spent on other activities.

The material in the book starts off at an easy level, and becomes progressively more difficult. We ask readers not to be put off by the complexity of the arguments; as I wrote of the Cornish phonological system in *Pronunciation and Spelling of Revived Cornish,* "If it were simple, then Nance and Smith would have got it right long ago".

Bosprenn
March 1997

The debate between Nicholas Williams and myself has continued. After producing a detailed English-Cornish (UCR) dictionary in 2001, Dr Williams and others developed another orthography which he called, rather aspirationally, *Kernowak Standard.* He has made many translations in this spelling. In 2006, he published *Towards authentic Cornish*, a book in which he contests the views expressed below in this volume, topic by topic. He cannot accept really clear-cut cases, such as the existence of two *o*-type vowels. A later book, *The Cornish consonantal system* (2016) is less combative.

The results of my continuing research, and a great deal of other material, are available on my website, at https://cornishlanguage.info/home.html.

Morwel
May 2025

Foreword by Paul Dunbar

Following the publication of Ken George's book *The Pronunciation and Spelling of Revived Cornish,* it seems that arguments have been put for and against every imaginable viewpoint on the subject.

I must confess that I have always had a predilection for the reasoned argument.

Unfortunately it has to be said that a very high proportion of what has been passed off as argument in the Great Cornish Spelling Debate would have sent Socrates scuttling off to seek oblivion in the nearest tavern, and driven Bertrand Russell to campaign against CND on the grounds that humanity didn't deserve to survive.

To argue like a bar-room philosopher may be forgivable in the ordinary Cornish speaker. He or she is not, after all, obliged to be any more logical than the general run of the population, and is completely at liberty to think of Cornish language issues in the way that most people think about politics: that is, badly.

However academics, as well as amateur seekers after the truth, have a duty - above all else - to talk and write logically. Having read Dr. N.J.A. Williams' *Cornish Today* and listened to him lecture it seemed to me that the debate was long overdue for an injection of hard fact and non-tendentious reasoning.

While discussing with Ken George the statistical evidence upon which his work is based, it occurred to us that our conversations could usefully be worked into a book.

Now one can be an extremely fluent speaker of Cornish or any other language; one can have high academic qualifications in speaking, writing and using a language; and yet one need have little or no formal understanding of language, just as a highly skilled driver need have no competence whatsoever as a mechanic.

My theoretical linguistics being next to non-existent I believed, therefore, that if Ken could explain the issues to me as simply as possible, an account our discussions ought to help clear the fog for others who are, like me, theoretically challenged; and if rendered into English it would also help those interested in the debate but who may not read Cornish easily or at all.

This book - purged, to spare the reader, of many a "...mmm", "...aaah", *"**Gast !**"*, *"**Drog yw genev, my yw euthek lent**"*, and *"**A vynn'ta styrya henna dhymm unnweyth moy, mar pleg ?**"* - is the result.

If it raises the level of debate, and brings illumination to where light has so far failed to penetrate, it will have achieved something.

1 Dr Williams' twenty-six points of criticism

P.D. Ken, is it worth the bother of answering Dr Williams' criticisms ? Why not just ignore the book, as many Cornish speakers have suggested ?

K.G. The criticisms appear so severe that they have to be answered. If they are not rebutted, then people may use them as ammunition in an attempt to discredit not only ***Kernewek Kemmyn,*** but the whole of the Cornish revival. It is a nuisance to have to do this, when time could be better spent in working on the English-Cornish dictionary, for example.

P.D. Perhaps we ought to start with the 26 points raised in §13.37 of *Cornish Today* {Fig. 1.1}. Taken together, they appear as a pretty damning criticism.

K.G. If they were correct, they would be damning; but most of them are false, not proven, or anachronistic.

P.D. Which ones are true, then ?

K.G. Only about three of the twenty-six appear to be substantiated as errors, but they are hardly "serious". C23 and C24 are correct but trivial.

P.D. Nit picking ?

K.G. If you like. The number of words like ***aloes*** (which is English anyway) is extremely small; to distinguish them, we should have to introduce a diaresis, i.e. ***aloës***. As for words like ***leshanow***, one could easily hyphenate them if it were really thought necessary.

P.D. I have counted only three head-words in *GLKK* containing *sh* for *s-h.* Nance didn't bother with *s-h,* either.

K.G. Quite; C24 applies also to Unified Cornish.

P.D. What is the third point which is correct ?

K.G. Possibly C16, but I am suspicious when Dr Williams dismisses Lhuyd's *dehou* as "a misprint" *(CT §8.3).* If Cornish really had /ɪ/ in the word for 'right', it is an exception, since Breton *dehou* and Welsh *de* both have *e.*

P.D. And Latin *dexter.* But again, this is hardly a serious error; it concerns just one word. What else should we examine ?

K.G. We can take C25 and C26 together.

P.D. Are they correct ? They appear insulting to me.

K.G. They are both gross exaggerations. Orthographic inconsistencies and wrong etymologies occur but rarely. Remember that I published a provisional edition of *GLKK* in January 1991, and invited readers to identify errors.

Dr Williams' criticisms of *Kernewek Kemmyn* *Fig. 1.1*

C1) ***KK*** insists on three vocalic lengths: long, half-long and short but MidC had only long and short.

C2) ***KK*** distinguishes /ɪː/ and /eː/ although the two had fallen together as /eː/ in MidC. [1]

C3) ***KK*** distinguishes /ɔː/ and /oː/ although in standard MidC the two had fallen together.

C4) ***KK*** is unaware that /iː/ had become /ej/ in final position in MidC.

C5) ***KK*** is unaware that original /ej/and /aj/ had fallen together as /aj/ in MidC.

C6) ***KK*** is unaware that /ow/ and /aw/ were falling together as /aw/ in MidC.

C7) ***KK*** is unaware that final /yː/ had become /ɪw/ in MidC and that final /uː/ had become /ew/.

C8) ***KK*** distinguishes /i/ and /ɪ/, though the two had fallen together as /ɪ/ in MidC and /ɪ/ alternated with /e/. ***KK*** therefore spells 'look', for example, as <mires> with /i/ although it is most frequently spelled *meras* in the texts.

C9) ***KK*** incorrectly pronounces long /aː/ as [aː] and not [æː].

C10) ***KK*** is ignorant of the vocalic alternation *y* ~ *e* and as a result posits such non-existent forms as *gwydhenn* 'tree', *hwytha* 'to blow', *ynys* 'island'.

C11) ***KK*** posits three diphthongs /iw/, /ɪw/ and /ew/, when MidC had 2 only (or in some cases only 1).

C12) ***KK*** has ***klyw, klywes*** and ***byw, bywnans*** when MidC had *clew, clewes/clowes* and *byw/bew, bewnans/bownans.* [2]

C13) ***KK*** attempts to distinguish quality in unstressed vowels even though all unstressed vowels are schwa from the MidC period onwards.

C14) ***KK*** posits the impossible /mɪː/ and /tɪː/ for 'I' and 'thou' respectively.

C15) ***KK*** is unaware that 'to thee' was both /ðiz/ and /ðiːz/ in MidC.

C16) ***KK*** spells and pronounces ***deghow*** 'right' with an unhistorical /e/. [3]

C17) ***KK*** posits a whole series of geminate consonants in Cornish: /pp/, /tt/ /xx/ etc., none of which existed in the MidC period.

C18) ***KK*** has no voiceless sonants /rh/, /lh/,/nh/, even though such items were a feature of MidC.

C19) ***KK*** is unaware of the rule that *deg* 'ten', *gwreg* 'wife' always have final /g/ but *medhek* 'doctor' and *gowek* 'mendacious' always have /k/ and that the same voice/voicelessness operates with *b/p.*

C20) ***KK*** uses graphs *[sic]* that are at variance with mediaeval and modern practice, e.g. <k> before back vowels as in ***Kammbronn;*** <kw> for <qu> and <hw> for <wh>.

C21) Because ***KK*** has half-length, which was absent from MidC, the system is compelled to geminate letters unhistorically in ***mamm*** 'mother', ***gwann*** 'weak', for example.

C22) ***KK*** is inconsistent with respect to the gemination of consonants: ***Kalann*** 'Calends', but ***lovan*** 'rope', but ***kribenn*** 'comb'.

C23) ***KK*** is inconsistent in using <oe> for /oː/ in ***moes*** 'table', for example, but /o-e/ in ***aloes*** 'aloes'.

C24) ***KK*** inconsistently uses <sh> to mean /ʃ/ in ***shap*** 'shape' but /sh/ in ***leshanow*** 'nickname'.

C25) The etymologies underlying ***KK*** are often wrong and the orthography is inconsistent as well as being mistaken.

C26) The database upon which ***KK*** was constructed is defective; as a result *GLKK* is replete with omissions and misinformation.

P.D. Was anything forthcoming from Nicholas Williams ?

K.G. No, nothing. Nevertheless, I am grateful to him for the examinations of words which he makes in *§13.37* and in the Appendix to *Cornish Today.* He obviously has a deep knowledge of Celtic etymology.

P.D. Will you take account of his comments ?

K.G. Yes, I agree with some of his conclusions, and will incorporate them when a new edition of *GLKK* goes to print.

P.D. What about C26 ? Is the database upon which ***Kernewek Kemmyn*** was constructed defective ?

K.G. There are slight defects in it. The magnitude of the enterprise is such that a small amount of error is unavoidable. The defects do not invalidate the basic structure of ***Kernewek Kemmyn***. Remember that the data-base was initially constructed using Unified Cornish (George, 1983); now that Keith Syed has provided us with versions of the texts in ***Kernewek Kemmyn***, a new and even more accurate data-base can be constructed.

P.D. Wouldn't that just be arguing in circles ?

K.G. No, it would be working in a spiral; or, if you like, using an iterative technique to produce an ever more accurate solution.

P.D. Perhaps I ought to put to you Dr Williams' "fundamental question" from *CT §13.13:* "if ***KK*** were scientifically based on a thorough study of Middle Cornish, why should it need periodic modifications at all ?"

K.G. The reconstruction of the phonology of a language is difficult, as Dr Williams himself writes *(CT §13.2).* As I wrote in *PSRC p.106 ,* the phonological system of Cornish "is extremely complex. If it were simple, then Nance and Smith would have got it right long ago". Every scholar builds on the work of others. I acknowledge the work done by a long line of Celtic scholars from Edward Lhuyd through Jenner, Nance and Smith to Nicholas Williams. Our knowledge about Cornish and Brittonic is generally increasing all the time, which may cause us to revise our earlier ideas. All forms of Revived Cornish have drifted slightly: just look at Nance's writings between the wars. In *CT §3.9* Dr Williams proposed a sequence of sound-changes to show how Middle Cornish *plu* developed into 16th century *Plew-;* later *(Pre-occlusion, §A1.2)* he withdrew this explanation and replaced it with a much more plausible one. Periodic modification concerning individual words may be a nuisance, but provided that the revisions are manifest improvements, they will be tolerated. The important thing is that the phonological structure is correct. Dr Williams is opposed to ***Kernewek Kemmyn*** because he believes that "the phonological base is erroneous" *(CT §A3.0(2)).* I am grateful to you for this opportunity to show that he is wrong.

P.D. That's a very long answer ! Can we continue with C26 ?

K.G. It's a "fundamental question". But yes, let's go on. To say that *GLKK* is "replete with omissions and misinformation" is a calumny.

P.D. To say that anything is "replete with omissions" is a curious expression ! But let us leave the last two criticisms. As you say, they are gross exaggerations. How do we treat all the others ?

K.G. We should consider not only rest of the 26 points in *§13.37* but also the "Further Objections to Kernewek Kemmyn" raised in the Appendix.

P.D. Dr Williams has really got it in for ***Kernewek Kemmyn***, hasn't he ?

K.G. Absolutely. He evidently cannot bear to see in use a system which he considers to be defective.

P.D. In *CT §13.1* he classifies his objections as (1) general, (2) theoretical, (3) orthographical, (4) phonological.

K.G. The four groups of objections are based on different arguments. The theoretical objections are mainly to do with presentation; and the orthographical ones with ideology.

P.D. And the phonological objections ?

K.G. These depend entirely upon Dr Williams' interpretation of the evidence from texts and place-names. If his interpretation is wrong, which I think to be largely the case, then his criticisms are unfounded.

P.D. Does this mean that in order to counteract Dr Williams' criticisms, we shall have to examine detailed phonological arguments ?

K.G. I'm afraid so.

P.D. Hmm, perhaps we'd better deal with the general criticisms first.

K.G. I'd really rather plunge into the phonology, because most of the reasoning behind ***Kernewek Kemmyn*** is dependent on it. About 20 of the listed 26 criticisms are concerned with phonology.

P.D. I appreciate that, but let's bear in mind that to many readers phonology is an unfamiliar subject. Spelling is what really upsets some people. Let's talk about that to start with, and then return to phonology.

K.G. Yes, I see the sense in that. What do you want to know first ?

[1] See Chapter 6.
[2] See Chapter 18.
[3] The word is from Proto-Celtic **dexswos;* it is recognized that Middle Cornish exceptionally had /ɪ/, so KK now spells it ***dyghow***: Late Cornish *dehou* shows the well-known sound-change /ɪ/ > /ɛ/.

2 Ideology

P.D. Why did Nance need to unify the orthography of the Middle Cornish texts ?

K.G. In the Middle Ages, the orthography of Cornish, and of other European languages, was irregular. The concept of a fixed orthography, in which words are always spelled the same way, is comparatively recent. Nance decided that Revived Cornish, along with other languages in the twentieth century, should have its orthography fixed.

P.D. How did he do it ?

K.G. He does not seem to have written down how he did it. According to Dr Williams *(CT §15.2)*.:
"Unified Cornish was produced in an *ad hoc* fashion without any thorough attempt to analyse the phonology of Cornish on which it was based. As a result Unified Cornish is mistaken in spelling and pronunciation in a number of significant ways."

P.D. Do you agree with this assessment ?

K.G. Yes, I do. It was this which caused me to investigate the phonology of Cornish in the first place.

P.D. Is Dr Williams' revision of Unified Cornish any better ?

K.G. Unlike Nance, Nicholas Williams **has** made a thorough attempt to analyse the phonology of Cornish. Leave aside for a moment my opinion that he has made a hash of much of it. I find it paradoxical that someone who clearly has the intellect to understand all the phonological issues involved advocates an orthography which takes little notice of his results.

P.D. Can you give me an example ?

K.G. The following sentence from *CT §17.4* is very telling:
"The lack of a method for indicating length [i.e. length of vowels] is perhaps a weakness in Unified Orthography, but it cannot be remedied without doing violence to the spelling of the texts".

P.D. "violence" !?

K.G. That's what Dr Williams writes: he appears to hold the orthography of the mediaeval texts as sacrosanct.

P.D. And you do not ?

K.G. No, I do not.

P.D. That's an unequivocal admission to make, and one which is bound to cause comment. You'd better explain it.

K.G. I do not consider that there is any particular intrinsic merit in the orthography of Middle Cornish; it is only one of four different orthographic styles used to write down traditional Cornish, and in the final analysis it is based on contemporary English orthography.

P.D. What are the other three historical orthographies, then ?

K.G. There is the orthography of Old Cornish .....

P.D. The one used for the *Vocabularium Cornicum ?*

K.G. Yes, and for the tenth-century List of Saints; this system was based on Latin orthography, but with the addition of some Old English graphemes.

P.D. Then there is the way in which Late Cornish was spelled .....

K.G. ..... which is also based on contemporary English spelling.

P.D. What is the last historical orthography ?

K.G. That of Edward Lhuyd, which is the most scientific and logical of the four.

P.D. Why did you not use his orthography as a basis, then ?

K.G. Because it reflects the pronunciation of Late Cornish, not of Middle Cornish.

P.D. What is your reaction to Dr Williams' comments in *CT §A3.0(3):*
"Cornish was a natural language and had a traditional spelling. Revivalists have no right to violate that tradition - however unsystematic the orthography may appear to be."

K.G. Dr Williams is being over-sensitive. We are planning for the twenty-first century, not the sixteenth. An unsystematic orthography is a hindrance to the future development of Cornish. It does not matter to Dr Williams, for he is clever enough to be able to transform a language written in such an orthography into its spoken form. Most learners are not that skilled.

P.D. Speaking as a beginner in Irish, I would have thought that Dr Williams, as a teacher of Irish, would have realized that.

K.G. In *CT §15.3* he wonders if more people might have become fluent in (Unified) Cornish had it not been so "quaint and archaic". I suggest that part of the difficulty was the orthography. Look at English for a moment: its spelling is difficult enough for English speakers. Think how difficult it must be for foreign learners. Who among us has not wanted at various times to reform the orthography of English ?

P.D. I certainly have, but I realize that it's an impossible dream, owing to the vast numbers of speakers, and because of the immense disruption and cost that a change would cause.

K.G. This is not the case with languages spoken by comparatively few people. Many of them have been blessed, or bedevilled, depending on your point of view, with reform of their orthography.

P.D. Such as ?

K.G. Welsh and Irish, I believe; Breton and Norwegian, certainly.

P.D. Though not without dissension and sometimes political overtones, I understand.

K.G. Quite; spelling reform is not something one contemplates lightly.

P.D. According to *PSRC §6.1.1,* you did not contemplate such a change at first.

K.G. No, not at first; I thought that it would cause too much resistance. I experimented with a revised orthography privately. Then, when the full extent of the shortcomings of Unified Cornish became apparent, I realized that not only did the phonology of Revived Cornish need to be set on a firm base, but an improved orthography was equally imperative. The relatively small number of Cornish speakers meant that a change in orthography could be countenanced as a practical proposition.

P.D. Was there much resistance to the new orthography ?

K.G. No, quite the reverse; teachers of Cornish, perceiving the obvious advantages of ***Kernewek Kemmyn****,* began to use it and to clamour for teaching materials to be made available.

P.D. The resistance seems to be manifesting itself now, from across the Irish Sea.

K.G. Indeed: but Dr Williams' resistance is not against the revision of Unified Cornish in principle, because he himself promulgates a revision.

P.D. Dr Williams' specific objection on orthographic grounds is that:

C20) Kernewek Kemmyn uses graphs *[sic]* that are at variance with mediaeval and modern practice, e.g. <k> before back vowels as in ***Kammbronn;*** <kw> for <qu> and <hw> for <wh>.

K.G. These are justifiable simplifications. I can discuss them in detail, if you like.

P.D. Later, perhaps {Section 21}.

K.G. I must emphasize that the requirements of Cornish orthography in the sixteenth century and in the twentieth century are quite different. There is no reason slavishly to copy the practices of the mediaeval scribes.

P.D. In what way are they different ?

K.G. In the time of the mystery plays, all Cornish speakers knew how to pronounce the language, though probably only a few could read it. There was no need then for the spelling to be a precise reflection of the pronunciation.

P.D. And it was not ?

K.G. No; in the words of Tim Saunders, it was rather "a visual adjunct to aural memory". Today, on the other hand, most learners of Cornish are literate. They learn Cornish by reading it, but may find it difficult to pronounce. They need an orthography which has a one-to-one correspondence between writing and sound.

P.D. This seems to be leading up to the idea of a phonemic spelling system.

K.G. It certainly is.

P.D. Then let's have a break first.

3 A phonemic orthography

P.D. One of the constantly repeated claims of ***Kernewek Kemmyn*** is that its orthography is "phonemic". What does this mean ?

K.G. A phonemic orthography is one in which there is a one-to-one correspondence between the spelling and the pronunciation; or to be more precise, each phoneme is represented by a unique grapheme.

P.D. I can see that we are not going to get very far unless we are clear what graphemes and phonemes are.

K.G. A grapheme is a letter or group of letters used in an orthography to represent a sound; it is indicated by angled brackets, e.g. <k>, <dh>.

P.D. And a phoneme ?

K.G. That is much more difficult. The text-books define it as "a minimal significant contrastive unit in the phonological system of a language".

P.D. That will not mean much to some readers. Please explain further.

K.G. The easiest way to explain is to think about minimal pairs. A minimal pair may be taken, in the first instance, to be a pair of words which differ in only one sound, e.g. *pit* and *bit.*

P.D. Yes, I hear the difference; *pit* starts with a hard sound and *bit* with a soft sound.

K.G. Many phoneticians would prefer the terms **unvoiced** and **voiced** rather than hard and soft, but that's beside the point.

P.D. What is the point ?

K.G. That the difference between the two sounds is sufficiently great to distinguish two different words.

P.D. Is that what you call a phonemic difference ?

K.G. Yes. The sounds of *p* in *pit* and of *b* in *bit* belong to different phonemes; we write the first phoneme as /p/ and the second as /b/.

P.D. What do the slanting lines mean ?

K.G. They are the symbols for a phoneme.

P.D. I don't quite follow the difference between a phoneme and a sound. Aren't they the same thing ?

K.G. No; it is possible to have sounds which are slightly different, but which belong to the same phoneme; they are different phonetically, but not phonemically.

P.D. Please give me an example.

K.G. There are three types of *l*-sound in English, all pronounced slightly differently; known as the clear *l,* the dark *l,* and the voiceless *l.* In English, these all belong to the same phoneme, because it is impossible to find a pair of different words which are distinguished by these slight differences.

P.D. You say "in English": do the distinctions vary from one language to another, then ?

K.G. Yes; I understand that in Polish, for instance, clear *l* and dark *l* are separate phonemes. On the other hand, in certain dialects of Chinese, [l] and [r] are not separate phonemes, as in English; this makes it difficult for Chinese speakers to distinguish /l/ and /r/ in English, and gives rise to jokes about *flied lice.*

P.D. This time you've used square brackets. What do they mean ?

K.G. They indicate actual sounds, according to a list of symbols known as the International Phonetic Alphabet.

P.D. You put a list of these in an appendix to *PSRC.*

K.G. Yes, and I shall append the same list to our discussions here (Appendix 2).

P.D. Let's get back to the spelling of Cornish. Is the orthography of ***Kernewek Kemmyn*** phonemic ?

K.G. Not perfectly phonemic. The phrase used in *PSRC* was "aspires to, but does not achieve, phonemic perfection".

P.D. Why doesn't it achieve phonemic perfection ?

K.G. Because there are other considerations, apart from the phonemic principle, which have been taken into account in designing the orthography of ***Kernewek Kemmyn***.

P.D. Let's come to them later {Section 23}; but first, I would be interested to know if any language achieves phonemic perfection.

K.G. The orthography of Esperanto is almost perfectly phonemic: Welsh is very good in this respect, and so is German.

P.D. What about Unified Cornish ?

K.G. The spelling of Unified Cornish is far from phonemic, because some graphemes are used to represent more than one phoneme.

P.D. Such as ?

K.G. <u> was used by Nance to denote /y/ as in *tus* 'people', /œ/ as in *mur* 'great', /o/ as in *gun* 'downland' and /ɔ/ as in *bulgh* 'gap'; in ***Kernewek Kemmyn,*** the different vocalic phonemes in these four words are spelled differently: ***tus, meur, goen, bolgh***.

P.D. So it would be fair to say that although ***Kernewek Kemmyn*** is not perfectly phonemic, it is a lot more phonemic than Unified Cornish.

K.G. Yes, that would be a fair summary. It is at least as phonemic as the orthography of Welsh. It is more phonemic than any other Cornish orthography, and for that reason, it makes Cornish much easier to learn. Once beginners have mastered a few basic rules, the near one-to-one relationship between writing and sounds enables them to read Cornish with a fairly accurate pronunciation.

P.D. Having started to learn Irish, I'm all in favour of phonemic orthographies ! Far easier on the old brain-box ! It is, of course, that which makes ***Kernewek Kemmyn*** such a success.

K.G. It is an immense success, a fact which its critics cannot bear.

P.D. We shall have to come back to the question of orthography later {Section 21}, but I know that you want to deal with the numerous phonological objections. What do you want to tackle first ?

K.G. The corner-stone of Dr Williams' hypothesis is the prosodic shift. We must look at that.

4 The prosodic shift

P.D. I will start with a simple question. What is the prosodic shift ?

K.G. It is the name given to a major phonological change in Cornish, the breakdown of the quantity rules.

P.D. What do you mean by the quantity rules ?

K.G. A set of phonological rules which tell us how long vowels were in Cornish. They are given in Fig. 4.1.

The quantity rules *Fig. 4.1*

1) In unstressed syllables, all vowels were short.

2) In stressed syllables, vowels preceding consonant groups and double consonants were short.

3) In stressed syllables, vowels preceding single consonants were long in monosyllables and of mid-length in polysyllables.

P.D. Let's have a definition of some of these terms, for the record.

K.G. Firstly stressed and unstressed syllables: we all know that most words in Cornish are stressed on the penultimate syllable, so that in a word like ***kerensa,*** the first and last syllables are unstressed, and the middle syllable is stressed .....

P.D. ..... and consonant groups are when two or more consonants come together, like ***ns*** in ***nans*** 'valley'.

K.G. Correct; and a double consonant is a group in which the same consonant is repeated, like ***nn*** in ***henna*** 'that one', or ***ss*** in ***nessa*** 'second'. A single consonant is one by itself, not in a group, like ***b*** in ***ebel*** 'foal'. Sometimes double consonants are called long, and single consonants are called short.

P.D. How did the quantity rules break down at the prosodic shift ?

K.G. The mid-length vowels in the stressed syllables in polysyllables ceased to be of mid-length.

P.D. What happened to them ?

K.G. In most cases -- Dr Williams would argue in all cases -- they became short, and in a few cases they became long, so that a threefold distinction in vocalic length (short, mid-length and long) became a two-fold distinction (short and long).

P.D. When did this happen ?

K.G. Here Dr Williams and I are in disagreement. I consider that the quantity rules as in Fig. 4.1 applied in Cornish until the seventeenth century, while he maintains that the prosodic shift occurred in the thirteenth century.

P.D. Is this difference important ?

K.G. Very much so, because it leads to very different views about the phonology of Middle Cornish, upon which phase both Unified Cornish and ***Kernewek Kemmyn*** are based.

P.D. Please go on.

K.G. If the prosodic shift had taken place before the earliest of the Middle Cornish texts, as Dr Williams would have us believe, then in the Cornish of the texts there would be no mid-length vowels, and to introduce them into ***Kernewek Kemmyn*** would be an error.

P.D. C1 in Dr Williams' list, presumably the most important criticism.

K.G. Yes, this matter is absolutely fundamental. It is this which is causing Dr Williams to proclaim to all and sundry that ***Kernewek Kemmyn*** is "faulty" and "erroneous". He's quite wrong, but we have to show that he is.

P.D. What arguments does he put forward in favour of an early date for the prosodic shift ?

K.G. In Fig. 4.2, I have laid out his principal lines of argument. Only one of these is direct; all the rest are circular.

P.D. Why are some boxes and arrows in light type, and others in bold ?

K.G. The bold features are those where I agree with Dr Williams, and the light features are those where I disagree.

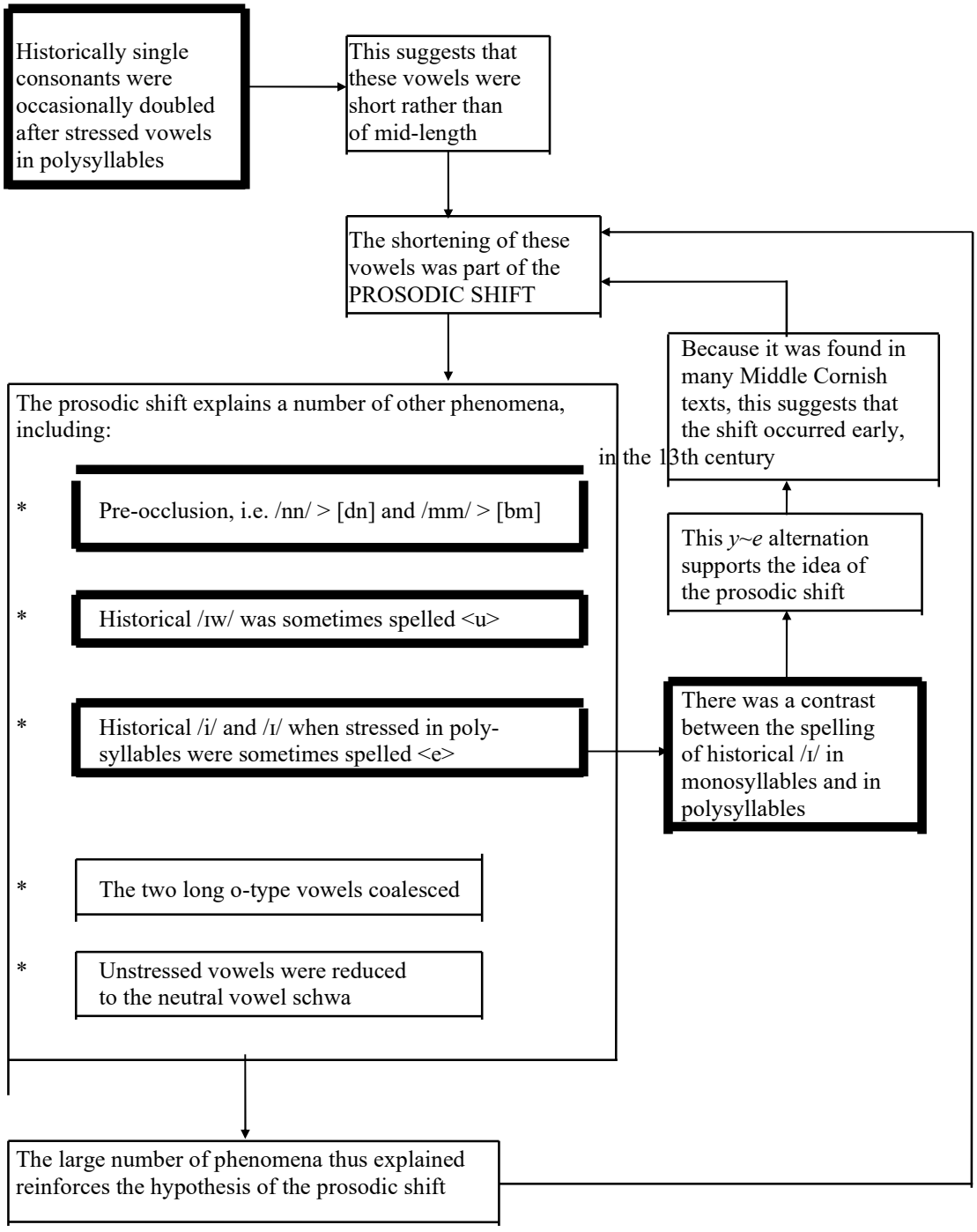
P.D. We shall have to take these in turn. Where do we start ?

K.G. Let us examine the only direct argument; the assertion with which Dr Williams introduces the prosodic shift: the orthographic doubling of consonants which were historically short.

P.D. What do you mean by that ?

Fig. 4.2

Dr Williams' lines of argument concerning the prosodic shift



K.G. According to the quantity rules, short (or single) consonants in the stressed syllables of polysyllables are preceded by mid-length vowels. One would expect such short consonants, like the second ***d*** in words like ***dader***, to be spelled as a single consonant, but there are cases of their being spelled as a doubled consonant, *dadder* instead of *dader.*

P.D. What is the significance of this ?

K.G. Because doubling a consonant is a common orthographic device to show that the preceding vowel is short, as in the English word *ladder,* Dr Williams takes it to indicate that the mid-length vowels had become short, i.e. that the prosodic shift had taken place.

P.D. I note that in §2.5 of *CT* he gives numerous examples of this, particularly *dadder* 'goodness'. "I have not bothered to count them all" he writes.

K.G. Let me say at once that Dr Williams is being highly selective. When compared with other stressed polysyllables containing /-d-/, ***dader*** appears as a special case {Fig. 4.3}.

Orthographic profile of /d/ in *dader* 'goodness' (including mutated forms) *Fig. 4.3*

	OCV	MC+	ORD	BSM	TH+	CW+	L17	EDL	L18
<d>	0	0	2	9	2	1	0	1	0
<dd>	0	1	3	14	16	0	0	1	0

P.D. I presume that the headings of the columns refer to texts.

K.G. Yes, blocks of texts: for a detailed explanation see Appendix 1.

P.D. Why do you think that ***dader*** was a special case ?

K.G. Other words did not behave in the same way. The orthographic profile of ***lader*** 'thief', for instance, shows no examples of <dd> {Fig. 4.4}. Neither was <dd> used in the spelling of ***broder*** 'brother', ***falladow*** 'failure', ***karadow*** 'lovable', ***kasadow*** 'hateful', ***Pedyr*** 'Peter' or ***preder*** 'thought'; only <d> was used, 244 times in all. Thus, if *dadder* really contained a short vowel, then it does not necessarily follow that all other polysyllables containing etymological /-d-/ contained one.

Orthographic profile of /d/ in *lader* 'thief' *Fig. 4.4*

	OCV	MC+	ORD	BSM	TH+	CW+	L17	EDL	L18
<d>	0	9	8	1	1	1	1	1	0
<dd>	0	0	0	0	0	0	0	0	0

P.D. And the other examples in *CT §2.5 ?*

K.G. Among these are:

thommeth	'marries'	BM..324
aswannas	'recognized'	TH.7a
aswonna	'recognized'	TH39a

I'm pretty sure that these examples contained double consonants historically, so that they shouldn't be in the list at all. Other examples should be in the list, but may represent errors on the part of the scribes.

P.D. Like writing <ll> when they should have written <l> ?

K.G. Yes; the scribes were not infallible.

P.D. Dr Williams says that "there are many other examples not listed" in *CT §2.5.*

K.G. But he fails to point out that, when examined for frequency of occurrence, such spellings are numerically **very rare**, comprising **less than 1%** of the total.

P.D. So for his half-page list of exceptional examples, you could produce over fifty pages of regular examples with single consonants.

K.G. I could indeed; they are all on computer files.

P.D. Oh dear ! When I asked Dr Williams, after his lecture in Lostwithiel, "that as he was averse to using computers, how he hoped to counter criticisms that his work was based on proof by selected instances", he replied that "Computers cannot be used in the analysis of historical linguistics". He also tried to argue that the exceptional spellings are the significant ones.

K.G. He's welcome to pursue that line, but it goes against common sense. Unlike him, I have bothered to do a lot a counting. Look at the numbers in Fig. 4.5, particularly the percentages of exceptional cases on the bottom line. You will notice it is only after block CW+, (i.e. *Creacon of the World* plus a few minor texts) that the percentage increases significantly.

P.D. Why is that ?

K.G. Because it is only then that the mid-length vowels became short.

P.D. So this is the real prosodic shift ?

Fig. 4.5

Spelling of consonant following stressed vowels in polysyllables

Block -->	MC+	ORD	BSM	TH+	CW+	L17	EDL	L18
Historical /ɛ/ in 14 common words								
single	117	427	247	281	130	25	20	19
double	0	0	0	2	1	67	26	18
Historical /a/ in 19 common words								
single	90	361	166	296	84	13	13	16
double	1	2	1	1	1	12	4	6
Historical /ɔ/ in 8 common words								
single	83	268	96	379	44	26	12	23
double	0	0	0	0	3	14	0	10
Historical /o/ in 15 words								
single	8	26	24	10	4	2	10	1
double	1	1	0	0	1	2	0	0
OVERALL PERCENTAGES OF DOUBLE CONSONANTS								
double (%)	0.7	0.3	0.2	0.3	2.2	59	35	37

K.G. It is indeed. As I wrote in *PSRC,*

> Circa 1600, the Cornish quantity system changed, so as to conform more to the English system. The half-long [i.e. mid-length] vowels were eliminated, usually becoming short.

I meant that Cornish was being increasingly influenced by English.

P.D. Dr Williams quotes this in *CT §13.19,* but reckons that you are "at least three hundred and fifty years too late".

K.G. Well, the bottom line in Fig. 4.5 speaks for itself. Before our eyes we can see the stable state of Cornish up to and and including *CW.,* followed by the dramatic increase in the percentage of spellings indicating a shortened vowel.

P.D. Dr Williams might argue that this is due to the introduction of a radically different spelling "system" in Late Cornish.

K.G. He probably will. But let me emphasize two points:

(a) Dr Williams' date is dependent on the hypothesis that the abnormal 1% or less of the spellings represent the norm, not the majority of 99% or more;

(b) whereas I can demonstrate and date the onset of the prosodic shift from textual evidence, he cannot; there are no texts from the 13th century, and therefore no evidence, of any shift at that date.

P.D. How convenient!

K.G. Indeed ! But there's more to come. Not only has Dr Williams got the date of the prosodic shift wrong, he's also misunderstood the outcome of the shift.

P.D. In *CT §2.4,* he writes:
"historically half-long vowels were reduced from two morae to one. As vowels of only one mora, originally half-long vowels were now short and indistinguishable therefore from vowels that had always been short."

K.G. There is clear evidence, especially in the case of the more close vowels /i, ɪ, o/, that the vowels sometimes became long. That is why the word "usually" appears in the quote from *PSRC.*

Fig. 4.6

Evidence of stressed original /i/ in polysllables appearing as [iː] in Late Cornish

(a) from texts

KERNEWEK KEMMYN	ENGLISH MEANING	TEXTUAL FORM	AUTHOR	TEXT
diber	saddle	*deeber*	Symonds	War Diary
gwitha	to keep	*gweetha*	W. Rowe	*Genesis 3*
		weetha	T.Tonkin	*Kanna Kernuak*
gwithys	kept	*gweethes*	J.Keigwin	Charles' Letter
hwilas	to seek	*wheelaz*	N.Boson	*Nebbaz Gerriau*
		wheelas	T.Tonkin	*Kanna Kernuak*
mirewgh	look for	*meero*	J.Boson	Pilchard Rhyme
piber	piper	*peeber*	Anon.	Words & Phrases
sira	father	*Seera*	N.Boson	*Nebbaz Gerriau*
		zeerah	W.Rowe	Ten Commandments
		seera	E.Chirgwin	*Delkiow Seve*
		Seera	J.Jenkins	Poem 1
		Seerah	Anon.	Words & Phrases
		Seera	J.Boson	Ten Commandments
skrifa	to write	*skreefa*	N.Boson	*Nebbaz Gerriau*
tira	to land	*teera*	N.Boson	*Duchess' Progress*
triga	to dwell	*Trîgas*	T.Tonkin	*Kanna Kernuak*
		treegaz	T.Boson	Old Hundredth

(b) from place-names

KERNEWEK KEMMYN	ENGLISH MEANING	MAPPED FORM	DATE	PARISH
pibell	pipe	Praze-an-Beeble	modern	Crowan
skiber	barn	*Park-an-Skeeber*	1649	Constantine
		Gweale Skeeber	1665	Crowan

P.D. What is the evidence for this ?

K.G. In the case of historical /i/, it is shown in Fig. 4.6. I take the spellings <ee> and < î > in Late Cornish to mean [iː], as in the English word *feeder.*. (I must also mention that in some cases /i/ became [ɪ], i.e. the sound in the English word *pin).*

P.D. Let me get this clear. Dr Williams claims that the vowel in these words was originally mid-length [iˑ], but that *c.*1250 it became short: and yet we find a long vowel in these words in Late Cornish.

K.G. Correct; the latter does not follow from the former.

P.D. So Dr Williams must be wrong, and this as regards the corner-stone of his arguments against ***Kernewek Kemmyn***.

K.G. It appears so.

P.D. Then what about all the phenomena in Fig. 4.2 which he ascribes to the operation of the prosodic shift ?

K.G. We could argue that, having refuted the alleged early date of the prosodic shift, the need to examine the other phenomena is lessened. On the other hand, if we do examine them, and find that Dr Williams' ideas about them are mistaken, then in turn that removes support for his hypothesis about the prosodic shift.

P.D. Which shall we start with ?

K.G. The question of long o-type vowels; the fact that there was a difference between the words for 'noise' and 'foot', written respectively ***tros*** and ***troes*** in ***Kernewek Kemmyn***.

P.D. Why start with that ?

K.G. Partly because there has already been some public discussion of this question, but mainly because the question involves stressed monosyllables, which have the greatest signal-to-noise ratio. If Dr Williams can't get this one right, then we can have little confidence in the rest of his writings.

5 ***tros*** and ***troes***

P.D. What evidence does Dr Williams put forward for suggesting that ***tros*** and ***troes*** were pronounced the same ?

K.G. Words like ***tros*** and words like ***troes*** are both spelled with a mixture of <o>-type and <oe>-type spellings.

P.D. What do you mean by <o>-type ?

K.G. Spellings such as *tros, trose, ...*

P.D. And by <oe>-type ?

K.G. Spellings such as <oy> in *moys* 'to go', <û> in *bûz* 'food', ...

P.D. If both types of spellings were used in both ***tros*** words and ***troes*** words, doesn't this prove Dr Williams' contention that the sound in each group was the same ?

K.G. No, because you have to take into account the frequency with with each spelling type was used for each group of words.

P.D. Please explain that further.

K.G. Suppose that in a given text, we examine all occurrences of ***tros*** words and of ***troes*** words, and record how they are spelled. Suppose that in total there are 70 occurrences of <o>-type spellings, and 30 occurrences of <oe>-type spellings. Then, if the two vowels had fallen together, we would expect the ratios of <oe>-type to <o>-type spellings, for the ***tros*** words and for the ***troes*** words when analysed separately, to be each about 30/70 = 0.43.

P.D. Because the population would be thoroughly mixed ?

K.G. Yes.

P.D. Is that what we do find ?

K.G. No, far from it. In almost every text or group of texts, in both Middle and Late Cornish, we always find that the ratio of <o>-type to <oe>-type spelling is greater in the ***tros*** words than in the ***troes*** words. This is what we would expect if the two vowel sounds were separate.

P.D. Can you give me an example ?

K.G. The numbers for *Origo Mundi* are given in Fig. 5.1. If the two vowels had fallen together, then we would expect both the ***tros*** words and the ***troes*** words to have <o>-type/<oe>-type ratios of about 0.04, the same as that of the total population. But there are far more <oe>-type spellings for the ***troes*** words, and far more <o>-type spellings for the ***tros*** words, than one would expect by chance.

Numbers of spellings from *Origo Mundi* *Fig. 5.1*

	tros words	***troes*** words	Total
<o>-type spellings	291	39	330
<oe>-type spellings	3	10	13
Total	294	49	343
Ratio <oe>/<o>	0.01	0.26	0.04

P.D. Are these figures statistically significant ?

K.G. Oh, yes, very much so. I have carried out two separate tests, which show that in almost all texts, the probability that the observed ratios came about by chance is less than 1 in 1000, and in some texts the probability is less than 1 in a million.

P.D. So Dr Williams is wrong.

K.G. Absolutely.

P.D. I note that Dr Williams is very persistent in this matter. In *CT §A2.3,* he gives numerous examples of ***tros*** words and ***troes*** words from *Beunans Meriasek,* all spelled in more or less the same way. What have you to say to that ? [1]

K.G. It is a bit naughty of Dr Williams to use *Beunans Meriasek,* because the way its author spells words is different from the methods used in the other plays.

P.D. *(mischievously)* But since ***Kernewek Kemmyn*** is based on *BM.* .....

K.G. Hey, hang on ! Don't run away with that false idea !

Fig.5.2

Dr Williams promulgates the false idea that *Kernewek Kemmyn* is based on *BM.*

CT §13.1	"KK seeks to represent the pronunciation of Middle Cornish and in particular BM, as closely and unambiguously as possible."
CT §13.28	"Dr George claims to have based KK most closely on BM"
CT §A2.3	".....BM, the text on which Kernewek Kemmyn is based"

P.D. Dr Williams seems to think that it's based on *BM.* {Fig. 5.2}:

K.G. Then he's got hold of the wrong end of the stick. ***Kernewek Kemmyn*** is based on **all** the texts in traditional Cornish.

P.D. Then where does Dr Williams get his idea from ?

K.G. I suspect that he has been influenced by something that I wrote in *PSRC,* section 5.1, to the effect that the phonological base of ***Kernewek Kemmyn*** "resembles most closely the sounds of traditional Cornish *c.*1500, the time of *Beunans Meriasek."* If you want to know how this date arose, I'll explain, but not right now.

P.D. O.K. I accept that. ***Kernewek Kemmyn*** is not specifically based on *Beunans Meriasek,* but on all the texts. Now where were we ?

K.G. I was explaining that the spelling of *BM.* is different from the other mediaeval texts.

P.D. In what way ?

K.G. Only in *BM.* is no significant distinction made between ***tros*** words and ***troes*** words in the spelling. That is why the examples in *CT §A2.3* might appear superficially convincing.

P.D. Are you saying that Dr Williams might be right in this matter ?

K.G. Certainly not. Let me explain further. All vowels possess both **quality** and **quantity .....**

P.D. We have already talked about quantity.

K.G. Yes, it means the length of the vowel.

P.D. And quality ?

K.G. Quality refers to the nature of the sound: whether the vowel is high or low (in the mouth), back or front, rounded or unrounded, oral or nasal; it is largely quality which distinguishes the vowels in *big* and *beg,* for example. In most of the Cornish plays, the spelling of vowels indicated quality rather than quantity. *Beunans Meriasek* is the exception.

P.D. Please explain that a bit more.

K.G. Both the ***tros*** words and and the ***troes*** words contained a long vowel, denoted by the symbol :. The vowels were the same in quantity, but varied in quality.

P.D. How ?

K.G. In Middle Cornish, the vowel in ***tros*** had a more open o-sound, (approximately [ɔː]), than the vowel in ***troes,*** (approximately [oː]): in Late Cornish, the [oː] became [uː] (the sound in present-day English *moon),* as is shown by words like *Goon* in Late Cornish. Now, it was evidently more important to Radulphus Ton, the author of *Beunans Meriasek,* to indicate that certain vowels were long, than to spell them differently because their quality was different. So he wrote *moys* for 'a table' and *moys* for 'to go', because they both contain a long vowel. It does not mean that the quality of the vowel was the same in each word. The statistics for the other plays show that the two vowels **were** different in quality.

P.D. Surely Dr Williams can't be so naive as to believe that because they were spelled the same, they were pronounced the same ?

K.G. I hope not, but on reading *CT §A2.3,* one might be led to think that. The guideline should be: if two (originally) different sounds are spelled in the same way, it does not necessarily mean that they had merged.

P.D. Can you give me an example ?

K.G. Please read this sentence, and tell me what you make of it: *Professor Smith had a row every day before breakfast* ?

P.D. The Professor must have a very short temper.

K.G. Ah, but the sentence might mean that he was an Olympic oarsman, and needed to train a lot; it depends how you read "row".

P.D. Yes, I see what you are getting at.

K.G. There's something even more interesting about *Beunans Meriasek* which I've discovered.

P.D. What might that be ?

K.G. It's quite well known that the first ten pages, or 270 lines, of *BM.,* are written in a different hand from the rest. They include examples of what Dr Williams calls *pre-occlusion.*

P.D. Using *hedna* instead of *henna,* for example.

K.G. We'll have to deal with that sometime, as well {Section 10}. It is generally reckoned that the different hand in the first ten pages represents a revised version, later than the rest. Now, if we apply the statistical tests separately to the first ten pages and to the rest, they show that the ***tros*** words and the ***troes*** words were more clearly distinguished in the former than in the latter. If, as Dr Williams suggests, the two phonemes were falling together, then we would expect them to be less clearly distinguished in the revised portion, not more.

P.D. Unless the differences were dialectal, as he likes to argue.

K.G. I think not. His dialects are a fiction.

P.D. Before discussing that, perhaps we can look at another point. In *CT §A2.0,* Dr Williams points out that the Late Cornish forms of the words for 'lamb', 'supper', 'wax', 'sister', 'to carry' and 'knows' do not fit the development Middle Cornish /oː/ > Late Cornish [uː], and suggests that they developed as [ɔː]. What do you make of this ?

K.G. It is evident that all of these words end in ***n*** or ***r***. One might be tempted to postulate that before /n/ or /r/, and perhaps /m/ and /l/ as well, Middle Cornish /oː/ became [ɔː], were it not for the fact that some other words do not follow the same pattern.

P.D. Which ones were they ?

K.G. Late Cornish *goon* 'downland', Lhuyd's *stûl* 'Epiphany' and *gûn* 'sheath', and *Moon* in field-names for ***moen*** 'ore'; they all show the regular development. .

P.D. So Dr Williams cannot get away from the fact that [oː] became [uː] in most words.

K.G. He tries to have his cake and eat it, by arguing that the change [oː] > [uː] occurred only in west Cornwall, whereas in the east the two vowels /ɔː/ and /uː/ fell together.

P.D. I can see that we shall have to get to grips with his idea of dialectal variation. What do you make of it generally ?

K.G. There may well have been dialectal differences in traditional Cornish, but we should beware of resorting to them to explain difficulties in Cornish phonology. Invoking dialectal variation is in my view an admission of the failure of one's hypothesis.

P.D. But sometimes there are marked variations between east and west.

K.G. They are explicable in terms of the progressive retreat of Cornish westwards through the centuries, i.e. a variation in time, not in space.

P.D. Is that the case here ?

K.G. Yes and no.

P.D. What sort of an answer is that ?

K.G. Yes, in the sense that the evidence of place-names {Figs. 5.2 and 5.3} shows the effect of the retreat for both ***tros*** and ***troes*** words; no, in the sense that the evidence of place-names for /oː/ fails to show <o>-type spellings in the east and <oe>-type spellings in the west.

P.D. So Dr Williams' hypothesis is untenable.

K.G. Yes; look at Fig. 5.2, which shows the incidence of ***koes*** 'wood' as a stressed second element. The examples in the west, like *Pencoose,* are spelled with <-oose> or similar; those in the east, like *Penquite,* are spelled <-quite> or similar.

P.D. The separation is very clear.

K.G. The <-quite> forms represent the development:
Old Cornish /koid/ > /kuid/ > Middle English /kwiːt/ > /kwaɪt/;
they show the advance of English in east Cornwall.

P.D. And further west ?

K.G. If Dr Williams were right, as we go westwards we should expect <o>-type spellings followed by <oe>-type spellings.

P.D. There's no sign of that.

K.G. None whatever; he is wrong.

P.D. The other map {Fig. 5.3} looks a bit more complicated.

K.G. It shows three ***tros*** words as stressed place-name elements. Again, the map shows the effect of the retreat of Cornish, rather than dialectal variation. There are again two zones here.

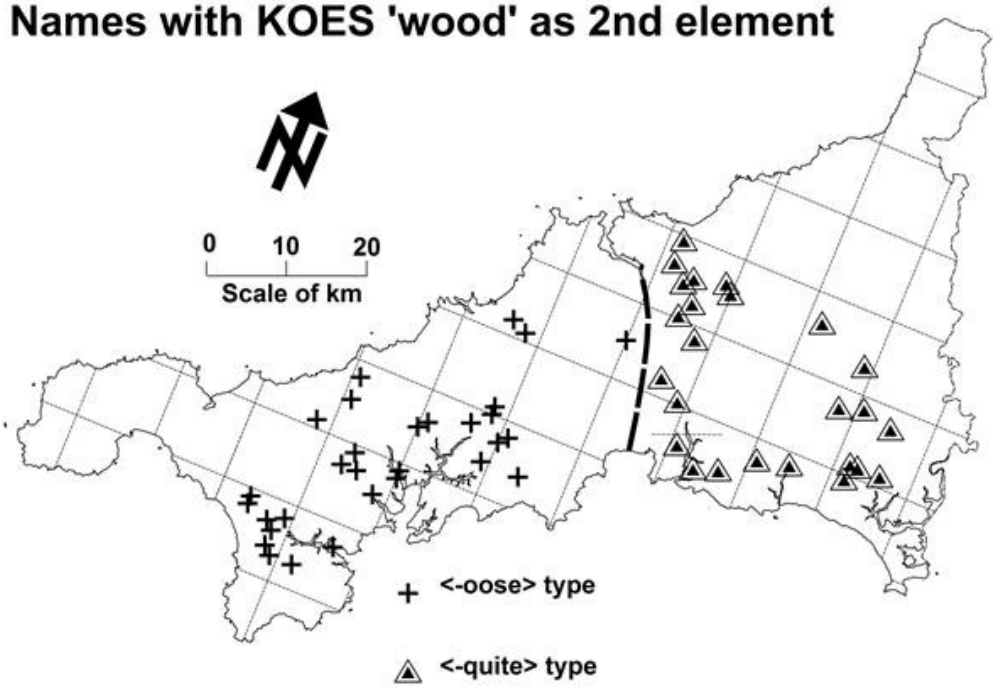
P.D. How do you interpret them ?

K.G. In the western zone (the O-zone), /ɔː/ continued in Cornish for as long as Cornish was alive at a given place. When taken into English, it was identified with the reflex of Middle English /ɔː/, and thus became [oː]; later, in standard English it became [əʊ], the diphthongal sound in *rose.*.

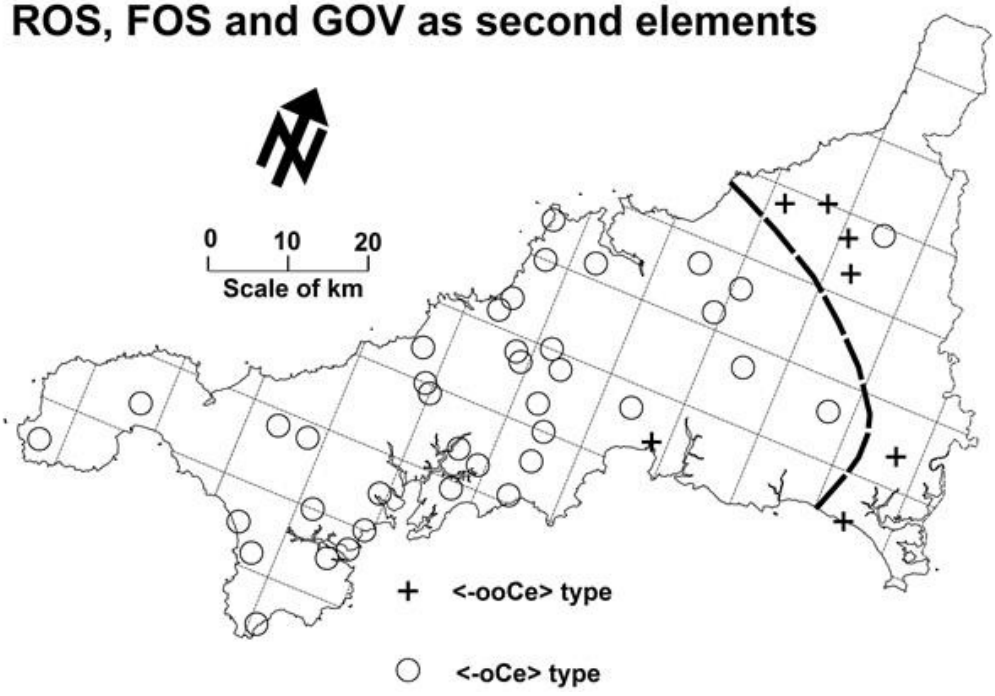
P.D. What happened in the eastern zone ?

K.G. The sound was taken into English at an early date, and identified with Middle English /oː/; it took part in the Great Vowel Shift, and became [uː]. It is clear from these maps that there was a difference between the reflexes of Middle Cornish /ɔː/ and /oː/, not only in the west of Cornwall, but everywhere in Cornwall.

Names with KOES 'wood' as 2nd element



ROS, FOS and GOV as second elements



P.D. What does this tell us about Dr Williams' "eastern dialect" ?

K.G. It never existed: and since the "eastern dialect" never existed, the "western dialect" never existed either.

P.D. I see that there is a + in the O-zone and an O in the +-zone.

K.G. These do not invalidate the results. Indeed the latter strengthens them. The + in the O-zone is *Rosegooth,* which looks as if it contains ***goedh*** 'goose', but was originally *Rosgof* 'smith's promontory', like *Roscoff* in Brittany.

P.D. Why was the element ***gov*** replaced by ***goedh*** ?

K.G. Possibly under the influence of *Polgooth,* a few kilometres away. The O in the +-zone is more interesting. It is *Penrose* in North Petherwin.

P.D. That's one of the parishes which Devon pinched from Cornwall .....

K.G. Until they were restored in 1974. Reference to *The Place-Names of Devon* shows that *Penrose* is actually pronounced [pɛn'ruːz], so that phonetically it belongs in the + category.

P.D. Why is it spelled *Penrose* then ?

K.G. Because of the influence of other places called *Penrose.* The spelling **Penroose* was evidently felt to be "incorrect".

P.D. In what way ?

K.G. The two maps show that ***tros*** words and ***troes*** words were kept apart, not only throughout the history of Cornish, but also effectively in the present-day perception of place-names. *Pencoose* and *Penrose* are felt to be Cornish; **Pencose* and **Penroose* are not.

P.D. I find this evidence completely convincing. I agree that there were two o-type vowels in Cornish, and that Dr Williams is mistaken. Now, what shall we examine next ?

K.G. Having started with stressed monosyllables, let us continue with them.

[1] See https://cornishlanguage.info/CorLing/phon/oeBM.pdf

6 ***bydh*** and ***bedh***

P.D. What other case involving stressed monosyllables have you in mind ?

K.G. The other case involving stressed monosyllables is criticism C2:

C2) Kernewek Kemmyn distinguishes /ɪː/ and /eː/ although the two had fallen together as /eː/ in Middle Cornish.

Note that I shall use /ɛː/ where Dr Williams uses /eː/.

P.D. Can you give me examples of common words containing these phonemes ?

K.G. I have shown a few in Fig. 6.1, along with their Breton and Welsh cognates.

Correspondences in Brittonic *Fig. 6.1*

ENGLISH	WELSH	BRETON	MIDDLE CORNISH	***KERNEWEK KEMMYN***
Stressed monosyllables with /ɪː/				
'world'	*byd*	*bed*	*bys, beys*	***bys***
'trees'	*gwydd*	*gwez*	*gwyth, gweyth, gweth*	***gwydh***
'time'	*pryd*	*pred*	*prys, preys*	***prys***
'dry'	*sych*	*sec'h*	*sygh, segh, seygh*	***sygh***
Stressed monosyllables with /ɛː/				
'ten'	*deg*	*deg*	*dek*	***deg***
'six'	*chwech*	*c'hwec'h*	*whe*	***hwegh***
'voice'	*llef*	*leñv*	*lef, leff*	***lev***
'heaven'	*nef*	*neñv*	*nef, neff*	***nev***

P.D. I notice that all the Breton words are spelled with <e>.

K.G. That is because in Breton, the sound of /ɪː/ became more open, until it became indistinguishable from that of /ɛː/; this happened at an early date, *c.* 1100 according to Jackson (1967, p.847).

P.D. But not in Welsh.

K.G. No; in Welsh, the two vowel sounds are separate.

P.D. What about Cornish ? Did these phonemes fall together ?

K.G. Not in Middle Cornish, though they probably did in Late Cornish. In *PSRC,* I suggested the date *c.*1650 for this.

P.D. So like the prosodic shift, it's not a question of whether the development took place, but when.

K.G. Yes. In *CT §3.6,* Dr Williams writes: "the transition /ɪː > eː/ was probably accomplished soon after the prosodic shift". This might mean *c.*1300.

P.D. Can minimal pairs be found to show the difference ?

K.G. There aren't all that many; those in Fig. 6.2 have been taken from *GLKK* and were not necessarily all attested in Middle Cornish..

Minimal pairs serving to distinguish /ɪː/ and /ɛː/					<u>*Fig. 6.2*</u>
ys 'corn'	*v.*	***es*** 'easy'	***bydh*** 'be !'	*v.*	***bedh*** 'grave'
lys 'court'	*v.*	***les*** 'profit'	***styr*** 'meaning'	*v.*	***ster*** 'stars'
pys 'prays'	*v*	***pes*** 'endures'			

P.D. Don't these prove that criticism C2 is wrong ?

K.G. Not really; Dr Williams would argue that the list in Fig. 6.2 was not valid in Middle Cornish, but applied only before the prosodic shift.

P.D. You have shown {Section 4} that his date for the prosodic shift is incorrect.

K.G. This helps a lot: but it will reinforce my argument if C2 can be refuted independently.

P.D. What evidence does Dr Williams adduce in support of his assertion ?

K.G. Nothing substantial, when you read *CT §3.6* carefully. His argument is all predicated on the assumption that the prosodic shift had taken place, and provoked the change /ɪː/ > /ɛː/. I also smelled a rat on examining the table in the same section.

P.D. What's suspicious about it ?

K.G. The fact that in order to find a spelling with <e> for ***bys*** 'world', Dr Williams had to turn to Lhuyd's *Archaeologia Britannica.*

P.D. You mean that in Middle Cornish, the word meaning 'world' was never spelled *bes* ?

K.G. Exactly. Now, if it were pronounced ['bɛːz], as Dr Williams would have us believe, why was it not spelled *bes* ?

P.D. You tell me.

K.G. Well, the short answer is because it was still pronounced ['bɪːz] .....

P.D. ..... meaning that /ɪː/ had not fallen together with /ɛː/ ?

K.G. That's my contention.

Orthographic profiles of monosyllables containing /-ɛːz/ *Fig. 6.3*

Text-->	MC.	OM.	PC.	RD.	BM.	TH.	SA.	CW.
bys 'world'								
<y>	12	23	12	16	3	39	1	12
<e>	0	0	0	0	0	0	0	0
<ey>	0	34	32	29	44	0	1	28
brys 'mind'								
<y>	0	8	2	1	1	1	0	1
<e>	0	0	0	0	0	0	0	0
<ey>	0	4	3	0	4	0	0	1
brys 'womb'								
<y>	0	0	0	3	0	0	0	0
<e>	0	0	0	0	0	0	0	0
<ey>	0	0	0	0	2	1	0	0
gwrys 'done'								
<y>	17	17	24	16	3	40	14	46
<e>	2	3	1	2	0	0	2	1
<ey>	0	13	1	0	30	0	7	0
krys 'believes'								
<y>	1	6	20	32	0	2	0	7
<e>	0	0	0	0	0	0	0	0
<ey>	0	8	3	2	15	1	0	10
krys 'vigour'								
<y>	0	1	4	0	0	0	0	0
<e>	0	0	0	0	0	0	0	0
<ey>	0	0	3	1	3	0	0	0
prys 'occasion'								
<y>	5	10	18	9	2	1	1	14
<e>	1	0	0	0	0	0	0	0
<ey>	0	4	2	0	12	0	0	13
pys 'prays'								
<y>	3	17	35	20	1	0	1	9
<e>	2	0	0	0	0	0	0	0
<ey>	0	1	4	2	5	0	0	2
Totals								
<y>	38	82	115	97	10	83	17	89
<e>	5	3	1	2	0	0	2	1
<ey>	0	64	48	34	115	2	8	54

P.D. Can you back it up ?

K.G. Yes, with a few tables and a diagram. On observing that the words in Dr Williams' table were nearly all spelled with <y>, <ey> and <e>, I wondered whether the frequency of each grapheme was the same. To check this, I did some counting. In Fig. 6.3, I display the orthographic profiles of some stressed monosyllables containing /ɪ:/.

P.D. What does this table tell us ?

K.G. That while <y> and <ey> were commonly used graphemes for /ɪ:/, <e> was rarely used. I next drew up a similar table for some stressed monosyllables containing /ɛ:/ {Fig. 6.4}

P.D. I see that in this table, <e> is the usual grapheme, <ey> is occasionally used, and <y> is unknown.

Monosyllables in /-ɛv/ *Fig. 6.4*

Text-->	MC.	OM.	PC.	RD.	BM.	TH.	SA.	CW.
grev 'grief'								
<y>	0	0	0	0	0	0	0	0
<e>	1	4	1	1	12	0	0	0
<ey>	0	0	0	0	0	0	0	1
lev 'voice'								
<y>	0	0	0	0	0	0	0	0
<e>	4	11	0	8	1	1	0	2
<ey>	0	0	0	0	0	0	0	0
nev 'heaven'								
<y>	0	0	0	0	0	0	0	1
<e>	13	51	27	61	40	55	11	36
<ey>	0	0	0	0	0	0	0	4
sev 'stands'								
<y>	0	0	0	0	0	0	0	0
<e>	2	1	0	15	3	0	0	0
<ey>	0	0	0	1	0	0	0	0

K.G. The orthographic profiles of the two groups of words are quite different {Fig. 6.5}. I don't think we need to use statistics this time. This proves, in so far as one can prove anything in historical linguistics, that the two phonemes had not fallen together in Middle Cornish.

P.D. This looks unanswerable to me.

How were /ɪː/ and /ɛː/ spelled in Middle Cornish ? *Fig. 6.5*

K.G.

PHONEME	GRAPHEME -->	<y>	<e>	<ey>
/ɪː/		common	rare	common
/ɛː/		unknown	common	rare

Dr Williams' only counter-argument is orthographic conservatism.

P.D. Could you expand on that ?

K.G. If we believe Dr Williams, we have to believe also that:
(a) Middle Cornish orthography arose before all the alleged changes took place, i.e. in the first half of the thirteenth century or before;
(b) this orthography was transmitted for some four centuries during which "scribal practice lagged well behind" the subsequent sound-changes.
In this case of /ɪː/ > /ɛː/, the lag is the whole of the four hundred years.

P.D. Does he really expect us to swallow that ?

K.G. When it suits his argument, yes.

P.D. But surely the "scribal practice" of those writing Cornish was actually the scribal practice of English of their day, more or less, because the scribes learned to write and read in English, and wrote Cornish "on the side".

K.G. I agree with that.

P.D. In spite of what Dr Williams may say, Cornish has never had its own orthographic tradition. Lhuyd was responsible for the first scientific orthography, but it didn't take off. ***Kernewek Kemmyn*** is the second. It has the distinction of not being based on English orthography, and it has taken off.

K.G. Let us continue with the tables.

P.D. Why have you separated ***krev*** 'strong' ?

K.G. Because although etymologically it contained /ɪːv/, its orthographic profile {Fig. 6.6} is like that of the words which contained /ɛːv/.

P.D. Why is that ?

The case of *krev* 'strong' *Fig. 6.6*

Text-->	MC.	OM.	PC.	RD.	BM.	TH.	SA.	CW.
<y>	1	0	0	0	0	2	0	0
<e>	12	7	7	6	6	0	1	2
<ey>	0	0	0	0	0	0	0	9

K.G. The answer is given in the note on this word in *GLKK:* "The /ɪ/ in Old Cornish *crif* /krɪv/ seems to have changed abnormally early to [ɛ]". The word for 'reptile' appears to have changed early, too, though there are fewer examples, in which case it ought to be written ***prev*** in ***Kernewek Kemmyn.***

P.D. What is the reason for this behaviour?

K.G. We have to think about the mechanism by which the two phonemes /ɪː/ and /ɛː/ fell together. Was it that their sounds drifted closer and closer until they became practically indistinguishable ? Or was it rather a process of lexical diffusion ? I think the latter applied here.

P.D. What does "lexical diffusion" mean ?

K.G. A progressive desertion of one phoneme in favour of the other, one word at a time. We have an example of this in early Modern English. At the beginning of the seventeenth century, words in <ea> in English, like *meat* and *peace* were pronounced with [eː]. It became fashionable to pronounce them with [iː], as they are today. Gradually one word after another became pronounced with [iː], until in standard English only three remain with the earlier pronunciation.

P.D. Which are they ?

K.G. *Great, steak* and *break.* Others remain in dialectal speech, however.

P.D. Like *tea* pronounced ['tɛː], for instance.

K.G. Or even *sea:* this was evidently pronounced ['seː] in the eighteenth century, when Cowper wrote:

God moves in a mysterious way / His wonders to perform,
He plants His footsteps in the sea / and rides upon the storm.

P.D. Let's get back to Cornish.

K.G. Well, if lexical diffusion were the mechanism whereby /ɪː/ changed to /ɛː/, then it is not surprising to find words which had switched camps early, as it were.

P.D. So we need not worry about Dr Williams' comment *(CT §13.22)* about ***krev***.

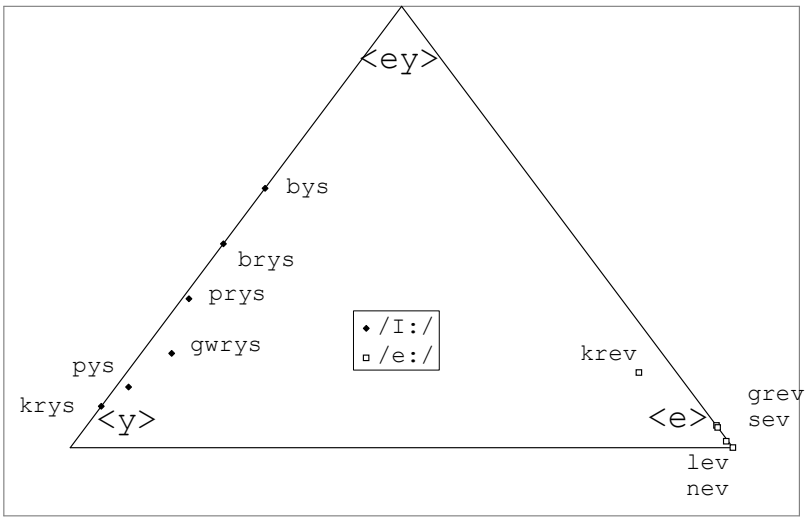
K.G. You may be interested in Fig. 6.7, in which I have summarized the data in Figs. 6.3, 6.4 and 6.5 on a single diagram.

P.D. How did you construct this diagram ?

K.G. I first summed all of the occurrences, in Middle Cornish and *CW.,* of each of the three graphemes <y>, <e> and <ey> for the stressed vowel in each word. Then I worked out the percentage occurrence of each of the three graphemes, and plotted the results on a ternary diagram, with <ey>, <y> and <e> at the vertices.

P.D. How is the diagram to be interpreted ?

Fig. 6.7



K.G. If, in a given word, the stressed vowel were spelled exclusively with <e>, the word would be plotted at the vertex labelled <e>; if it were spelled with a mixture of <e> and <y>, but not <ey>, it would appear on the base of the triangle.

P.D. I see that the words fall into two very distinct groups.

K.G. Yes, it stands out a mile. Those containing /ɪ:/ are on the left, having a mixture of <y> and <ey> spellings; and those containing /ɛ:/, including ***krev***, are on the side <ey> - <y>, and close to the <e> vertex. The clear conclusion to be drawn is that /ɪ:/ and /ɛ:/ did not fall together in Middle Cornish. Dr Williams is wrong to say that they did.

The idea that the sound-change [ɪ:] > [ɛ:] occurred by lexical diffusion is confirmed in my paper of 2018: https://cornishlanguage.info/CorLing/phon/ICfate.pdf. Lexical diffusion also applied when the vowel was half-long or short.

7 ***dhis***

P.D. We have talked about stressed monosyllables containing ***e*** and ***y:*** what about those containing ***i*** ?

K.G. By far the commonest word is ***dhis*** 'to thee', whose orthographic profile is shown in Fig. 7.1. As you can see, <e>-type spellings were extremely rare. /iː/ was kept separate from /ɪː/.

Orthographic profile of *dhis* 'to thee' *Fig. 7.1*

Block --> Type	MC+	ORD	BSM	TH+	CW+	L17	EDL	L18
<i, y, î>	21	183	65	3	0	0	8	0
<ee, e-e, ee-e>	0	0	0	2	0	14	0	2
<ei, ey>	0	0	0	0	31	0	1	0
<ie, ye>	0	0	0	0	7	0	0	0
<e>	0	0	0	0	2	1	0	2

P.D. What do you make of Dr Williams' idea (C15) that there were two forms of the Middle Cornish word *thys* 'to thee' ? I find it far-fetched.

K.G. Quite so; ingenuity carried too far. I can go along with his explanation of ***dhymmo*** and ***dhiso*** *(CT §18.8)* .....

P.D. ..... that they arose by analogy with ***dhodho*** ?

K.G. Yes; at one time I thought that they came from misdivision of ***dhymm evy*** and ***dhis ejy*** (i.e. combinations with the emphatic pronouns), but rhymes, and I mean mostly true rhymes, show that this was not the case.

P.D. Such as ?

K.G. Look at Fig. 7.2. Also significant are the persistent spelling with <o>, and the division of Middle Cornish as *thyso jy* and not **thys ejy.*

P.D. But you don't accept Dr Williams' further point about two forms ?

K.G. No. His argument is dependent upon the hypothesis that the stressed vowel in *thyso* was short. We have already seen that the quantity rules were still in operation in Middle Cornish, and the vowel in *thyso* was therefore still half-long. His analogy with ***dhymmo*** therefore falls flat.

P.D. And another criticism bites the dust !

Fig. 7.2

Rhymes in /-ɔ/ involving *dhiso* and *dhymmo*

The references give the line on which ***dhiso*** and ***dhymmo*** are found. They are grouped according to the type of rhyming words.

3rd singular present subjunctive of ***bos***: *bo, fo, navo* ***(na'th fo)***
MC.99; OM..111, 261, 410, 987, 2266; PC..265, 1052; RD..1581, 1997; BM.3094; CW..870

Other stressed words: *ytho, ro, o, adro*
MC.72, 99; OM..111, 410, 1274a; RD.1581

3rd singular present subjunctive of other verbs: *rethokko, thoro, veughe* ***(vywo)****, theffo, sconyo, theppro, fynno, threhavo, teffo*
MC.72; OM..410, 585, 987, 2385; PC..801; RD..411, 1581

3rd singular masculine pronominal prepositions: *warnotho, ragtho, thotho, ynno, thyragtho, annotho, ganso*
MC.99; OM..868, 987, 998, 1683; RD..411, 703, 2061

Borrowings: *pharo, wo, vyrago, welawo*
OM..111, 1480; PC.2587; RD.2041

N.B. 1) Rhymes with ***dhymmo*** are commoner than those with ***dhiso*** because whereas ***dhis*** has many (imperfect) rhymes, ***dhymm*** has hardly any rhymes at all.

2) Rhymes in /-ɔ/ are very rare in *BM.* and *CW.* because of the change /-ɔ/ > /-a/.

See also George K.J. (2018) *What happened to Primitive Cornish /ɪ/ when long in closed syllables?* Paper presented to the Poznán Conference of Celtic Studies, Poland, July 2018, available on my web-site.

8 ***tas***

P.D. While we are dealing with stressed monosyllables, we ought to consider criticism C9, which states that:

C9) Kernewek Kemmyn incorrectly pronounces long /aː/ as [aː] and not [æː].

Am I right in thinking that this is to do solely with pronunciation ?

K.G. Yes; it does not concern the structure of ***Kernewek Kemmyn***.

P.D. What is meant by long /aː/ ?

K.G. It is the vowel which is found in stressed monosyllables such as ***tas*** 'father', and ***mab*** 'son'.

P.D. I have heard these two words pronounced with differing vowel sounds in the same sentence: ***"Gordhyans dhe'n Tas, ha dhe'n Mab, ha dhe'n Spyrys Sans".***

K.G. So have I. You would think that Cornish-speaking priests would know that the vowel in ***tas*** and in ***mab*** is the same vowel; yet, as you say, they have been known to pronounce ***mab*** with [aː] and ***tas*** with a closer vowel, [ɛː] or even [eː].

P.D. Why do you think this is ?

K.G. Perhaps they applied the pronunciations recommended by Nance and Smith to ***tas*** and not to ***mab;*** but they may have been influenced by the first line of *MC.:*

Tays ha mab han speris sans

P.D. In what way ?

K.G. One unversed in the phonology of Cornish might be tempted to read this line as if it were English, and pronounce *Tays* as if it rhymed with the English word *pays.* In fact the <ay> is just a device to indicate that the vowel was long.

P.D. Let me be sure of this: I understand [aː] to be a long open front vowel.

K.G. It is; as open as you can get.

P.D. And what about [æː] ?

K.G. It is a lengthened form of [æ], which is the vowel which was formerly used in Standard English in words like *sacks.* Nowadays this pronunciation is considered affected, and when short, there is the risk of confusion with /ɛ/.

P.D. That reminds me of the question "What is meant by *sex* ?" to which the answer is "['sæks] are what one has one's coal delivered in Kn[eɪ]ghtsbridge".

K.G. Exactly. Both [æː] and [aː] are long vowels, as is shown by the marker ː. They are both front vowels. The difference is that while [aː] is produced with the tongue as low as it can get, [æː] is produced with the tongue slightly higher.

P.D. In *CT 13.27* we find: "Dr George denies that /aː/ was ever pronounced [æː] in Middle Cornish".

K.G. This is not true. Dr Williams is putting words into my mouth, just as he sometimes ascribes to me beliefs which I do not hold. My arguments in *PSRC* were against the realizations of /aː/ as [eː], [eːə], [ɛː] and [ɛə]. I never said anything about [æː].

P.D. In view of the arguments presented in *CT §3.17,* perhaps you should have. What weight do you give to these arguments ?

K.G. Comparatively little weight. The comments about Edward Lhuyd are inconclusive, and the argument about <aa> could be reversed.

P.D. In what way ?

K.G. As a part of the English Great Vowel Shift, long A in English was raised from [aː] to [ɛː], but it took its grapheme <a-e> with it. Thus if Cornish long A remained as [aː], one would need a grapheme which would suggest that it was more open than English long A. <aa> would satisfy that requirement.

P.D. Fair enough. What about this one: "It is difficult to see how names in *-glaze* or *(-)praze* could have come about had the vowel in Cornish not already been [æː] or [ɛː]". Later, in *CT §13.27,* Dr Williams becomes more emphatic: "Place-names with *-praze* and *-glaze* are inexplicable unless /aː/ was [æː]". Can you help him over this difficulty ?

K.G. We have to remember that Cornish was abandoned by the younger generation in west Cornwall after *c.*1675. The "signpost spelling" of place-names there reflects the way in which contemporary English speakers would have perceived the Cornish names. As I pointed out in *PSRC §11.4.3,* "[aː] hardly existed in the standard English of 1700"; if Cornish speakers pronounced ***-glas*** as ['glaːz], then English speakers would have replaced this with the nearest equivalent in contemporary English, which was ['glɛːz], and spelled it <glase> or <glaze>.

P.D. He also finds it "difficult to see why *Creeglaze, Cruglaze,* ..... do not appear in English as **Creeglass, *Cruglass*" *(CT §3.17).*

K.G. He must do better than this. *Circa* 1700, words like *glass* and *brass* would have been pronounced with a short [a], as they still are in northern England. When place-names containing Cornish [a] were **unstressed** and therefore short, they **were** spelled in this way, e.g. the field-name *Brass Teague* for [pras 'tɛːg].

P.D. But not when the vowel was stressed ?

K.G. No; the spelling <glass> was inappropriate for Cornish ***glas,*** when stressed, because the English word *glass* did not become ['glaːs] in English until *c.*1750 (Wells, 1982). There was no way that even English speakers could mistake a long vowel for a short one.

P.D. Is it Dr Williams who is mistaken, then ?

K.G. The fact that the element ***-glas*** is spelled <glaze> does not prove Dr Williams' contention that the word ***glas*** was pronounced ['glæːz] in Cornish, but then it does not disprove it either.

P.D. What do you think the pronunciation was ?

K.G. I think it quite likely that the English speakers used ['glɛːz] while the Cornish speakers continued to use ['glaːz]. [1]

P.D. You mean that there were two different pronunciations of the same name, one in Cornish and one in English ?

K.G. Yes. Why not ? Why should English speakers have bothered to acquire the correct Cornish pronunciation ? They rarely bothered anywhere else in the world. They don't bother today: we frequently hear such solecisms as ['lɪskaˑd] for *Liskeard* instead of [lɪs'kard].

P.D. The oldest generation say [lɪs'kɛrd]. I take your point. But what about bilingual speakers ?

K.G. They would not have been above changing their pronunciation according to which language they were speaking.

P.D. Ah, yes: pronounce a well-known place-name differently, as we do, according to whether we are speaking English or Cornish ?

K.G. Again, why not ? The equivalent happens in Brittany. I have heard plenty of speakers refer to the town of *Lesneven* as [lɛz'nɛˑvɛn] when talking Breton, and then, switching to French, refer to the same place as ['lɛznəvẽ].

P.D. Do you then dismiss all the arguments in *CT §3.17* ?

K.G. Almost; only one of them cuts any ice with me.

P.D. Which one is that ?

K.G. The fact that the loan-word ***fas*** 'face' was written <feth> on occasion.

P.D. Why do you find this important ?

K.G. Because it is supported by the fact that the native word ***hwath*** 'yet' was sometimes spelled <wheth>.

P.D. Do you think that Dr Williams is right, then ?

K.G. It may be that before [θ], /aː/ was realized as [æː]; but in general, no; I don't think that he is.

P.D. Why not ?

K.G. We have already seen, despite what Dr Williams believes, that Middle Cornish kept separate the three long front vowels /iː/, /ɪː/ and /ɛː/. In order to accommodate a fourth, /aː/, it minimizes the risk of confusion if /aː/ is pronounced with as open a sound as possible, i.e. [aː]. Even if he were right, the pronunciation [æː] would be unlikely to gain wide acceptance.

P.D. Why not ?

K.G. Your definition of "sex" shows the problem. Few people, other than those speaking an old-fashioned Received Pronunciation, are accustomed to uttering [æː], and would tend to replace it by [ɛː], which would create confusion between such words as ***begh*** 'burden' and ***bagh*** 'hook'.

P.D. Could be awkward !

K.G. I remember, a few days before the birth of my daughter, being asked: "['ɔstə 'tɛːz] ?" Momentarily I interpreted this as ***"Osta tes*** ?" 'are you heat ?' "Funny sort of question", I thought, and then I realized that ***"Osta tas*** ?" was meant.

P.D. It strikes me that this is a feeble, impractical and largely unsubstantiated objection to ***Kernewek Kemmyn***. Let us change the subject.

[1] It appears that words with Old Cornish /-s/ such as *glas* were pronounced with a half-voiced [ʂ] in Middle Cornish, which was then voiced to [z] in Late Cornish (George 2024).

9 ***ki; my*** and ***ty***

P.D. All our phonological discussion so far has concerned long vowels in stressed monosyllables. Is there any more to say on this subject ?

K.G. We have discussed only closed monosyllables. We now need to look at stressed vowels in open monosyllables.

P.D. What do you mean by closed and open ?

K.G. Closed syllables are those ending in a consonant or group of consonants; open syllables are those ending in a vowel or diphthong.

P.D. The first criticism which appears to be concerned solely with open syllables is:
C4) Kernewek Kemmyn is unaware that /iː/ had already become /ej/ in final position in Middle Cornish.
What are meant by /iː/ and /ej/ ?

K.G. By /iː/ is meant a high front vowel, like the vowel in the English word *bee,* which was found in words like ***ki*** 'dog'. Dr Williams uses /ej/ to denote a diphthong similar to that found in the English word *say.* I prefer the label /ɛɪ/, but both labels are acceptable.

P.D. To support his criticism, Dr Williams gives in *CT §7.5*, as "good evidence", eight examples of rhymes from the texts.

K.G. Three of the eight examples are irrelevant, because they refer to /ɪː/ rather than /iː/. But apart from that, this is not good evidence; it is poor evidence.

P.D. Why do you say that ?

K.G. The fact that words in /-ɔɪ/ and /-aɪ/ were sometimes rhymed with those in /iː/ does not mean that /iː/ had become /ɛɪ/.

P.D. Dr Williams seems to think so.

- **K.G.** No, it means solely that in the absence of many true rhymes in /-ɔɪ/ or /-aɪ/, poets were forced to use imperfect rhymes in /iː/. [1]

P.D. Can you explain this further ?

K.G. Reference to fig. 9.1 shows that rhyming words in /-ɔɪ/ and /-aɪ/ are rather rare. They're floating about like free radicals, ready to join in a rhyme with any word that sounds reasonably close.

P.D. That reminds me of some members of the Cornish language movement. So do you reject this criticism ?

K.G. I do not

Fig. 9.1

Rhyming words in /-ɔɪ/ and /-aɪ/ (from *GLKK)*

Words in /-ɔɪ/		Words in /-aɪ/ (all loan-words)	
joy	joy	***ay***	oh
moy	more	***bay***	kiss
namoy	no more	***fay***	faith
noy	nephew	***gay***	splendid
Noy	Noah	***gway***	moves
oy	egg	***hay***	enclosure
roy	give	***kay***	quay
		pray	prey

dispute that /iː/ in words like ***ki*** became a diphthong in Late Cornish; Lhuyd's spelling *kei* shows that. The dispute is again a question of when this change occurred.

P.D. Can we not deduce that from the spellings ?

K.G. Not so easily as you might think. We have to remember that Cornish was for the most part written as if it were English, and bear in mind that /iː/ existed in Middle English too.

P.D. Can you give me an example ?

K.G. A good example would be the word *fie,* nowadays pronounced ['faɪ] and rhyming with *high.* In Middle English this would have been pronounced ['fiː], the same as Modern English *fee.*

P.D. How do we know ?

K.G. The word comes from Old French *fi,* and is still pronounced ['fiː] in Modern French.

P.D. When did it change in English then ?

K.G. The change in English was not a single jump from [iː] to [aɪ]. There was a whole series of sound-changes through the centuries (after Wells, 1982):

[iː]	>	[ii]	>	[ei]	>	[əɪ]	>	[ʌɪ]	>	[aɪ]
		*c.*1450		*c.*1550		*c.*1625		*c.*1700		*c.*1825

P.D. Is this the English Great Vowel Shift ?

K.G. The initial change from a pure vowel to a diphthong was part of the Great Vowel Shift. The other changes were subsequent to it. Now the point about the spelling is this: the spelling of some words containing Middle English /iː/ has not changed since the fourteenth century, yet their pronunciation has changed considerably. If, therefore, we find a stressed monosyllable in Cornish spelled with <-y>, it might mean the original pure vowel sound ['iː], but on the other hand it might mean one of the diphthongs in the sequence I have just given.

P.D. I need to think about that.

K.G. Well, take the word *fie* again. This is found in Middle Cornish, twice in *PC.* and five times in *BM.,* all spelled *fy.* This might have been pronounced ['fiː] or it might have diphthongized to ['fii]. This means that spellings are usually of limited use.

P.D. You say "usually". Are there exceptions ?

K.G. Yes, a few; one notable one is *tray* 'three' recorded by Andrew Borde, a non-Cornish speaker, in about 1543, which suggests that /iː/ had developed to a diphthong by that time.

P.D. Is Dr Williams right then ?

K.G. We cannot tell. I think it unlikely. It is possible that historical /iː/ was realized as a diphthong in the fifteenth century, but the evidence presented by Dr Williams, viz. the existence of imperfect rhymes with /-ɔɪ/ and /-aɪ/ does not prove it. The spellings in Middle Cornish do not prove or disprove it.

P.D. Do we do anything about it ?

K.G. No. This is not an error in ***Kernewek Kemmyn.*** The recommended pronunciation of /iː/ in ***Kernewek Kemmyn*** will continue to be [iː].

P.D. The other criticism which is concerned solely with stressed open syllables is:
C14) Kernewek Kemmyn posits the impossible /mɪː/ and /tɪː/ for 'I' and 'thou' respectively.
In what sense are these representations impossible ?

K.G. Only in terms of Dr Williams' analysis of the evidence, which I believe to be flawed.

P.D. What is the evidence ?

K.G. This time spellings are much more useful. I have drawn up orthographic profiles in Fig. 9.2.

P.D. What do they show ?

Orthographic profiles of *my* and *ty* *Fig. 9.2*

Text -->	CE.	MC+	OM.	PC.	RD.	BM.	TH.	SA.	CW.
my 'I'									
<my>	2	0	207	74	32	28	3	0	11
<me>	1	43	36	243	157	278	43	7	245
vy 'I' (enclitic or object)									
<vy>	0	0	31	29	31	55	1	0	2
<ve>	0	66	8	3	1	10	152	32	50
ty 'thou'									
<ty>	2	0	75	66	82	73	0	0	32
<te>	0	37	0	0	0	2	25	10	48

K.G. Fig. 9.2 confirms that the vowel in ***my*** (also its mutated form ***vy)*** and ***ty*** were spelled in Middle Cornish as a mixture of <y> and <e>.

P.D. I see that Dr Williams failed to find the two cases of *te* in *BM.*

K.G. There are two choices here; either
(a) you take the spellings at their face-value, as Dr Williams has done, in which case you have to postulate two different forms of ***my*** and ***ty;*** or
(b) you suppose that the mixture of <y> and <e> represents a vowel between [iː] and [ɛː], such as [ɪː].

P.D. Why do you think that (b) is correct ?

K.G. Because the spellings in Late Cornish fit so well. We know that the vowel in the other pronouns ***hi, ni, hwi*** and ***i,*** which was [iː] in Middle Cornish, became diphthongized, and in Late Cornish passed through a stage [əɪ], as suggested by Lhuyd's spellings *nei, huei* {Fig. 9.3}.

Personal pronouns in Cornish and Breton *Fig. 9.3*

PRONOUN	MIDDLE CORNISH	LATE CORNISH		BRETON
		Lhuyd	Others	
my 'I'	*my, me*	*mî, me*	*mee, me, mî*	*me*
vy 'I'	*vy, ve*	*vî*	*vee, ve*	
ty 'thou'	*ty, te*	*tî*	*chee, te*	*te*
hi 'she'	*hy*	*hei*	*hy*	*hi*
ni 'we'	*ny*	*nei*	*ny*	*ni*
hwi 'you'	*why, wy*	*huei*	*why, whei*	*c'hwi*
i 'they'	*y*	----	*y, ey*	*i*

P.D. Just like Middle Cornish *chy* 'house' and *ky* 'dog' became *chei* and *kei.*

K.G. Exactly. Now if Middle Cornish *my* meant ['mi:], as Dr Williams claims, it would have become *['məɪ] in Late Cornish and be spelled **mei.*

P.D. Are such spellings found ?

K.G. No; the preceding asterisk indicates that they are not found. The commonest spellings are *mî* in Lhuyd's works and *mee* otherwise {Fig. 9.3}. These mean ['mi:]. It is clear that at the same time as ['ni:] > ['nəɪ] we had ['mɪ:] > ['mi:].

P.D. What conclusion do you draw from Fig. 9.3 ?

K.G. That the vowel in ***my*** and ***ty*** is different from that in ***hi, ni, hwi*** and ***i.*** It was different throughout Middle and Late Cornish, and it is also different in Breton. In Fig. 9.4 I have shown this in a slightly different layout.

Vowels in personal pronouns *Fig. 9.4*

	Middle Cornish		Late Cornish			cf. Breton
				Lhuyd	Others	
my, ty	/ɪ:/ <y~e>	-->	[i:]	<î>	<ee>	[e:]
hi, ni, hwi, i	/i:/ <y>	-->	[əɪ]	<ei>	<y>	[i:]

P.D. It is so obvious when you lay it out like that. I can't see why Dr Williams didn't come to the same conclusion.

K.G. He was misled by other considerations, such as the tendency to rhyme ***my*** and ***ty*** with words in /-i:/.

P.D. Are you trying to make excuses for him ?

K.G. Not really; I'm just pointing out how easily one can be put off: perhaps too influenced by Unified Cornish, I made the same kind of mistake in *PSRC §5.3.2.* But it is surprising that he can't see what really went on, especially as in *CT §18.2,* he explicitly states that the forms **he, *ne, *whe* and **e* are unattested.

P.D. He's obviously way off-beam. Please can we find something more important ?

K.G. I suggest that we leave vowels for a while, and look at consonants.

[1] These rhymes are now regarded as semi-rhymes; i.e. only the second element of the diphthongs rhymes.

10 ***kann*** versus ***kan*** and ***kannav*** versus ***kanav***

P.D. Why do you want to talk about pre-occlusion, when it does not feature explicitly in the list of 26 criticisms ?

K.G. Because Dr Williams uses it as one of the phenomena which support his dating of the prosodic shift, and because he puts forward bizarre ideas about it, which need to be examined.

P.D. I realize that pre-occlusion means the sound changes [nn] > [dn] and [mm] > [bm], but why does Dr Williams use this name for it ?

K.G. The occlusive consonants are those which begin the following English words: *pit, kit, tit; bet, get, debt.* These are denoted phonetically by [p,t,k; b,d,g].

P.D. I hear that they are in two groups.

K.G. Yes, the first three are the voiceless occlusives, and the second three the voiced occlusives.

P.D. How does the term "pre-occlusion" arise, then ?

K.G. We know that words like *henna* changed to *hedna* and later to *hedda.* The second change may be described as "occlusion", because a change to an occlusive consonant is involved.

P.D. So the first change is a halfway house to occlusion ?

K.G. Yes, that's the idea; hence the term "pre-occlusion"; it's quite reasonable.

P.D. But Dr Williams' hypotheses about it are not, it seems.

K.G. I think not. Let us start with those features about which he and I agree. It is generally accepted that British possessed two sets of nasal consonants, which we may call long and short.

P.D. Just a minute ! By nasal consonants you mean *m* and *n,* don't you ?

K.G. Yes. In Late British there were two types of *m,* and two types of *n.*

P.D. Ah, I remember; we've already come across these in our discussion on the Prosodic Shift {Section 4}. But why do we have to hark back to British, for goodness' sake ? That was about a thousand years before the date of pre-occlusion !

K.G. Just in order to understand fully what went on. As I was saying, both *m* and *n* occurred in two different forms, long and short: I am going to write the short forms as /m/ and /n/.

P.D. And the long forms ?

K.G. Although Dr Williams uses /M/ and /N/ in his book, I shall write the long forms as /mm/ and /nn/.

P.D. Why ?

K.G. Because I believe that the long forms were pronounced as double consonants; **geminate** is the word used by the linguists. I use the slanting lines because the difference between long and short forms was phonemic.

P.D. Can you give a minimal pair which illustrates the phonemic difference ?

K.G. There are plenty of such minimal pairs; ***gwanna*** 'weaker' and ***gwana*** 'to stab', for example; there is a whole list of them on page 190 of *PSRC.*

P.D. What about /mm/ and /m/ ?

K.G. That is not so easy, because in Late British, /m/ suffered lenition ....

P.D. ..... soft mutation .....

K.G. ..... and the result was another nasal sound, which eventually ended up as [v].

P.D. So that's why the soft mutation of [m-] is [v-].

K.G. Yes, it's the same in all three Brittonic languages: and that's why we can't get native Cornish words with [-m-] in the middle; it would have changed to [-v-].

P.D. What about the word ***dama*** 'mother'?

K.G. That doesn't count, because it's not a native word; it was borrowed from French *dame.* It may be that the /m/ phoneme was reinstated in Cornish by virtue of these loan-words, but for the moment, let's stick to /nn/ and /n/.

P.D. We were looking at minimal pairs.

K.G. Yes, consider these two pairs:

kann 'white'	*v.*	***kan*** 'song'
kannav 'I bleach'	*v.*	***kanav*** 'I sing'

I would like to examine each of these four type-words in turn.

P.D. Starting with ?

K.G. Two words like ***kann,*** whose orthographic profile is shown in Fig. 10.1. Although these contained the long consonant /nn/, it was evidently not customary in Middle Cornish to indicate this long consonant in writing.

P.D. I see that the change from [nn] to [dn] is very marked. What about the case of /nn/ in polysyllables, in words like ***kannav*** ?

Spelling of /nn/ in stressed monosyllables *Fig. 10.1*

Examples used: ***penn*** 'head', ***vynn*** 'wishes'

Block -->	OCV	MC+	ORD	BSM	TH+	CW+	L17	EDL	L18
<n>	1	4	151	126	39	50	0	0	0
<dn>-type	0	0	0	0	1	9	31	7	19

Notes: 1) <dn>-type includes *dn, d'n, dd'n, dne, den, dden.*
2) The single case of <dn>-type in *TH+* does not occur in Tregear's Homilies, but in Andrew Boorde's collection of Cornish words and phrases.

K.G. If you look at Fig. 10.2, again you can see the change in spelling in the 16th century. Also evident is the further change [dn] > [dd]. The difference between this case and the previous one is that it **was** customary in polysyllables to show the long consonant in writing, as <nn>.

Spelling of /nn/ in the stressed syllable of polysyllables *Fig. 10.2*

Examples used: ***henna*** 'that one',
mynn-, vynn-, fynn- (morphological variants of ***mynnes*** 'to wish')

Block -->	MC+	ORD	BSM	TH+	CW+	L17	EDL	L18
<nn>	92	232	122	280	120	1	3	1
<nh>	1	0	0	0	0	0	0	0
<dn>	0	0	0	0	10	11	9	4
<dd,d>	0	0	0	0	2	4	2	3
<n>	4	1	8	6	9	2	1	0

P.D. All this seems quite clear, so far. What about the short consonants ?

K.G. The /n/ in stressed monosyllables like ***kan*** was virtually always spelled <n>. It is the spelling of the preceding long vowel which is of interest.

P.D. In what way ?

K.G. It was not customary in Middle Cornish to indicate the length of a long vowel.

P.D. Why not ?

K.G. It wasn't necessary. Cornish speakers knew how to pronounce their language. Unlike today, when people learn Cornish by reading it, there was in the Middle Ages no particular requirement to make the orthography fit the pronunciation as closely as possible.

P.D. But this wasn't the case in Late Cornish, when long vowels were often shown by the spelling. I notice the word ***den*** 'human being' spelled as *dean, deane, dene,* and *dên.*

K.G. Indeed they were; Fig. 10.3 demonstrates this very clearly.

Spelling of stressed monosyllables containing /-n/ *Fig. 10.3*

Examples used: ***den*** 'human being', ***dhyn*** 'to us'

The consonant was invariably spelled <n>. The following table indicates whether or not the length of the preceding vowel was shown by the spelling:

Block -->	MC+	ORD	BSM	TH+	CW+	L17	EDL	L18
not shown	55	258	169	225	8	2	1	4
shown	1	0	0	4	38	18	13	11

P.D. That leaves us with words like ***kanav***.

K.G. These are the most interesting of the four, because according to the quantity rules, the stressed vowel in these had mid-length, at least before the prosodic shift. Their orthographic profile is shown in Fig. 10.4.

Spelling of stressed syllables containing /n/ in polysyllables *Fig. 10.4*

Principal examples used: ***bones*** 'to be', ***ena*** 'there', ***enev*** 'soul', ***genev*** 'with me', ***hanow*** 'name', ***honan*** 'self', ***lowena*** 'joy', ***mones*** 'to go', ***onan*** 'one'.

Block -->	OCV	MC+	ORD	BSM	TH+	CW+	L17	EDL	L18
<n>	39	198	880	433	553	213	44	97	38
<nn>	0	7	26	3	2	3	64	35	29
Other	0	0	1	0	0	1	0	2	0

P.D. What do you make of these data ?

K.G. The table shows that:
(a) By far the commonest grapheme in Middle Cornish was <n>.
(b) Both <n> and <nn> were used in Late Cornish.

P.D. How do you interpret that ?

K.G. I think that the instances of <nn> in Late Cornish show that the mid-length vowel had become short.

P.D. And the instances of <nn> in Middle Cornish ?

K.G. These are mostly mis-spellings for <n>.

P.D. How can you be so sure ?

K.G. We have already discussed all this under the heading "The Prosodic Shift" {Section 4}. If the mid-length vowel had really become short in Middle Cornish, then we would expect far more instances of <nn> than we actually find.

P.D. Ah, yes, I remember your saying that such spellings comprise less than 1% of the total.

K.G. Any hypothesis which is based on exceptional spellings is bound to run into problems. We can envisage the phonetic evolution of the four type-words ***kann***, ***kannav***, ***kan*** and ***kanav*** as being affected by a series of sound-changes; these were:
(a) the loss of final [-v] in unstressed syllables;
(b) pre-occlusion;
(c) the loss of mid-length in vowels (the prosodic shift).
In Fig. 10.5 I have laid out the effects of these changes on the type-words.

P.D. Were all of the type-words were affected by all of the changes ?

K.G. Obviously not. The loss of unstressed [-v], for instance, applied only to ***kannav*** and ***kanav.***

P.D. When did these sound-changes take place ?

K.G. The loss of [-v] was already in progress during the time of the Middle Cornish texts. It took a very long time, perhaps two hundred years, and I am sure that forms with and without [-v] co-existed. The other two changes appear more abrupt.

P.D. What is the significance of this ?

Developments of /nn/ and /n/ *Fig. 10.5*

K.G.

PHONEME -->	/nn/	/nn/	/n/	/n/
SYLLABLES -->	mono.	poly.	mono.	poly.
TYPE-WORD -->	***kann***	***kannav***	***kan***	***kanav***
ENGLISH -->	'white'	'I bleach'	'song'	'I sing'
in Middle Cornish	['kann] *can*	['kannav] **cannaf*	['ka:n] *can*	['ka·nav] *canaf*
loss of final [-v]		**yes**		**yes**
pre-occlusion	**yes**	**yes**		
loss of mid-length vowels				**yes**
in Late Cornish	['kadn] **cadn*	['kadna] **cadna*	['ka:n] *cane*	['kana] **kanna*

Throughout the history of traditional Cornish, the reflexes of Primitive Cornish /nn/ and /n/ were kept apart:

['kann] *v.* ['ka:n] and ['kannav] *v.* ['ka·nav] in Middle Cornish
['kadn] *v.* ['ka:n] and ['kadnav] *v.* ['kanav] in Late Cornish

A clear example of the ***kanav*** type is Middle Cornish *benen* 'woman', which became *bennen* in Late Cornish; it did not become **bednen.*

P.D. But surely all this has been known for years !

K.G. Known, and accepted. Dr Williams' ideas *(CT §§9.1-9.6)* are startlingly different.

P.D. In what way ?

K.G. He claims that pre-occlusion is a "direct result" *(CT §2.7, 9.4)* of the introduction of the new prosodic system. He dates pre-occlusion as not "very much later" than *c.*1250 *(CT §9.4).*

P.D. I can see a problem straight away. If pre-occlusion occurred in the thirteenth century, why wasn't it written down until the sixteenth century ?

K.G. You tell me ! An even trickier one is this: we know that place-names exhibiting pre-occlusion are confined to the west of Cornwall, but in the thirteenth century Cornish was spoken in (much of) the east as well as the west. If pre-occlusion occurred in the thirteenth century, why does it not appear in the more easterly place-names ?

P.D. More "dialectal variation" coming up, I suspect !

K.G. It's his only way out. His explanation is that pre-occlusion occurred only in the west.

P.D. It seems strange to me that an innovation would occur in the west. Peripheral areas are usually more conservative in linguistic developments.

K.G. I agree. Dr Williams gets around this by postulating an innovation in the east:
"In more easterly Cornish it is probable that the opposition /n/ - /N/ had already been lost before the prosodic shift. In consequence pre-occlusion could not occur."

P.D. I find it difficult to see what he is driving at here.

K.G. I can understand that. It's by no means easy, and I have tried to help you by summarizing the effects of the alleged developments on the four type-words in Fig. 10.6. In "western Cornish", the reflexes of Primitive Cornish /n/ and /nn/ appear to remain distinct in both stressed monosyllables and polysyllables. In "eastern Cornish", they remain distinct in stressed monosyllables, but fall together as [n] in stressed polysyllables; thus, according to Dr Williams' hypothesis, in eastern Cornish, ***kannav*** and ***kanav*** would have become homophones.

P.D. His explanation in Fig. 10.6 is incredibly more complicated than yours in Fig. 10.5.

K.G. His explanation is incredible, full stop ! We would have to believe that in the "western dialect", between the supposed date of pre-occlusion and its appearance in writing, it existed for some 300 years without being written down.

P.D. I am beginning to follow these detailed arguments now. If, in the "western dialect", the stressed vowel in ***kanav*** had become short, then the only difference between ***kanav*** and ***kannav*** would have been the nature of the nasal consonant.

K.G. [nn] versus [n] is not a clear enough distinction, so Dr Williams has to get around it by postulating that <nn> meant [^{d}n].

P.D. What is [^{d}n] meant to be ?

K.G. It seems to be a hint of pre-occlusion, but not enough to cause it to be written down.

P.D. Hmm ! Proto pre-occlusion, eh ? Let's consider the "eastern dialect".

K.G. According to Fig. 10.6, ***kannav*** and ***kanav*** had merged completely. This means that scribes using that dialect would progressively become confused between words which originally contained /nn/ and those which originally contained /n/; reversed spellings would abound.

P.D. Reversed spellings ?

Developments of /nn/ and /n/ according to N.J.A.Williams *Fig. 10.6*

PHONEME -->	/nn/	/nn/	/n/	/n/
SYLLABLES -->	mono.	poly.	mono.	poly.
TYPE-WORD -->	***kann***	***kannav***	***kan***	***kanav***
ENGLISH -->	'white'	'I bleach'	'song'	'I sing'

Alleged eastern dialect

sometime before *c.*1250	['kann]	['kannav]	['ka:n]	['ka·nav]
reduction /nn/ > [n]	*yes*	*yes*		
	['kan]	['kanav]	['ka:n]	['ka·nav]
prosodic shift, c.1250				*yes*
{pre-occlusion not applicable}				
in Middle Cornish	['kan]	['kanav]	['ka:n]	['kanav]
	can	**cannaf*	*can*	*canaf*

Alleged western dialect

sometime before *c.*1250	['kann]	['kannav]	['ka:n]	['ka·nav]
{ /nn/ > [n] not applicable }				
prosodic shift				*yes*
	['kann]	['kannav]	['ka:n]	['kanav]
pre-occlusion	*yes*	*yes*		
in Middle Cornish	['ka^{d}n]	['ka^{d}nav]	['ka:n]	['kanav]
	can	**cannaf*	*can*	*canaf*
loss of final [-v]		*yes*		*yes*
in Late Cornish	['kadn]	['kadna]	['ka:n]	['kana]
	**cadn*	**cadna*	*cane*	**kanna*

K.G. They would write <nn> for words which originally contained /n/ and <n> for words which originally contained /nn/.

P.D. Did they do that ?

K.G. Only occasionally. In *CT §12.7,* Williams implies that *Pascon agan Arluth* and Tregear's Homilies were of eastern provenance. Yet we find that in these works, <-nn-> is used for /-nn-/ and <-n-> is used for /-n-/ in at least 95% of the cases {Figs. 10.2 and 10.4}. To believe that orthographic conservatism, over three hundred years in the case of Tregear, is responsible for this remarkably high score is straining credulity too far.

P.D. How do you explain the geographical distribution of place-names which show pre-occlusion ?

K.G. I subscribe to the the conventional explanation for this distribution, viz. that the eastern limit of these place-names corresponds to the eastern limit of the Cornish-speaking area at the date of pre-occlusion as indicated by the spelling, about 1575.

P.D. In *CT §9.6,* Dr Williams points out that, although "John Tregear's homilies were written ..... roughly in the same period as BM and CW", which do show pre-occlusion, nevertheless "not once does Tregear exhibit any example of pre-occlusion. It is likely therefore that Tregear came from the Cornish-speaking area where pre-occlusion did not occur, i.e. well to the east of Truro. It has been suggested that Tregear may have come from Newlyn East." Is this not evidence for a dialectal variation ?

K.G. Not a bit. It is an example of a circular argument. What is more, Dr Williams' list of place-names with pre-occlusion is incomplete.

P.D. Does that matter ? He obviously compiled it from Padel (1985) and Pool (1973).

K.G. Yes, it does matter, because if we examine the full list, we find place-names with pre-occlusion as far east as a line from St Austell to Newquay. Newlyn East is within this area..

P.D. Why does Tregear's work not show pre-occlusion, then ?

K.G. I think that the distribution of pre-occlusion in the texts may be satisfactorily explained without recourse to this fictitious dialectal variation.

P.D. How ?

K.G. Innovation in speech-patterns may occur quickly if taken up by the whole of a new generation of speakers. Suppose that all Cornish speakers born after 1510 said ['hɛdna], in contrast to their elders, who said ['hɛnna]. *BM.* was written down by Radulphus Ton in 1504, before pre-occlusion occurred. Its first ten pages, or 270 lines, were re-written by another hand at a later date, perhaps *c.*1540, by someone of the younger generation. When Andrew Borde came to Cornwall in 1543, he recorded ***my a vynn*** 'I will' as *me euyden,* which is usually taken to indicate pre-occlusion. If this chronology is correct, his informant is likely to have been aged less than 30. On the other hand, John Tregear is likely to have been comparatively old when he translated Bonner's homilies *c.*1558, possibly in his fifties. It all fits a variation in time, without any need for a variation in space.

P.D. Dr Williams is obviously aware of the conventional solution, that "Cornish survived longer in the west than further east" *(CT §9.5):* but he dismisses it on the grounds that "pre-occlusion is also recorded in Scilly, where the language died early".

K.G. Earlier than on the mainland, certainly, but not necessarily earlier than the date of pre-occlusion. Thomas (1985) wrote:

"In the year 1600 there could still have been people in Scilly able to understand Cornish, perhaps to talk to grandparents, ... and occasionally to converse with visiting Cornish fishermen, some of whom would be monoglot Cornish-speakers. By the 1660s, though, there is absolutely no hint that Cornish was current"

Pre-occlusion occurred wherever Cornish was spoken by people born after *c.*1510, and this included Scilly.

P.D. And the further argument that "the toponym *Polpidnick* in St Keverne < *pol pennek* shows pre-occlusion but not *-ack* < *-ek"* ?

K.G. Very weak ! The dates of the two changes, *-ek* > *-ack circa* 1550 (George, 1992) and pre-occlusion *c.*1575, are so close that one should not be surprised if the odd place-name shows the latter but not the former. ***Hemma ny amont travydh !***

P.D. Can the same be said of all of Dr Williams' ideas on pre-occlusion ?

K.G. Yes: Dr Williams' position for the eastern limit of place-names containing pre-occlusion is factually incorrect; his hypothesis of eastern and western dialects is untenable; and the date of pre-occlusion does not support the idea of a prosodic shift in the thirteenth century.

11 ***gwella*** and ***gwelav***

P.D. I have been re-reading my notes on our last discussion, and thinking about long and short consonants. Now the consonant *l* also occurred in long and short forms.

K.G. Yes, there was /ll/ (long *l),* as in ***pell*** 'far', and /l/ (short *l),* as in ***pel*** 'ball'.

P.D. Fine. Then I want to ask you about a statement in *CT §8.1:* "before the operation of the new prosodic system ... *gwelaf* 'I see' and *gwellaf* 'best' would have been /gweˑla/ and /gweLa/ respectively". What does he mean by L ?

K.G. It is his symbol for the long *l;* I use /ll/ to refer to this.

P.D. Thank you. Then, referring to the conditions after the prosodic shift, he writes: "both became /ˈgwelə/". Would it be possible for you to check this ?

K.G. Yes, both words are quite well attested. Figs. 11.1 and 11.2 show in detail the spellings used for these two words, including their mutated forms.

Spellings of *gwella* 'best' **in traditional Cornish** *Fig. 11.1*

guèla	Lhuyd
guel ha	PC.246, 3012
guelha	N.Boson: *John of Chyannor* 9, 10; Lhuyd
guelhe	BM.3757
guella	MC.1124b; OM.536, 644, 663, 1184, 1193, 1904, 2034, 2081, 2139, 2165, 2289, 2620; PC.256, 468, 1448, 1507; RD.562, 1002, 1489, 1590; BM.3881; CW.1096; N.Boson: *John of Chyannor,* 9, 10; Lhuyd.
guelle	BM.2709
gvella	OM.413, 447, 650, 1061
gwelha	CW.1958
gwell a	CW.1709
gwella	TH.1; CW.1815; T. Tonkin: *Kanna Kernuak* 7.3; J.Tonkin: *Song to the tune "Maid of Kent"* 3.4, 6.3; J.Jenkins: *Second Poem* 12; J.Boson: *Pilchard Rhyme* 20.
gwellah	T.Tonkin: *Kanna Kernuak* 12.4
wella	PC.555; RD.14, 582, 1858; BM.1099, 3878

P.D. Are we concentrating here on the loss of /-v/ from ***gwelav,*** or the difference between /ll/ and /l/ ?

K.G. On the latter; we can talk about unstressed final syllables another time {Section 14}.

Spellings of *gwelav* 'I see' in traditional Cornish *Fig. 11.1*

guelaf	OM.1142; RD.725, 1380, 1528
guelav	Lhuyd.
gwellaf	CW.824
wela	OM.1396; BM.2523, 2554, 4355
welaf	OM.588; PC.1029, 1589, 2592, 2933, 3014, 3175; RD.1813, 1962; CW.1459, 1626
welaff	MC.1664a; BM.2336
wellaf	CW.1165
whelaf	PC.2945

P.D. What do you make of the results ?

K.G. The lists show that ***gwella*** was spelled 53 times with <ll> or <lh>, and once with <l>; ***gwelav*** was spelled 23 times with <l> and twice with <ll>. The differences are striking, and suggest that a difference between /ll/ and /l/ was maintained throughout the phase of Middle Cornish. [1]

P.D. It looks like Dr Williams is wrong yet again.

K.G. It does look that way. If his assertion were true, viz. that ***gwelav*** and ***gwella*** were pronounced the same way, or at least that the stressed syllables therein were pronounced identically, then we would not expect the extremely clear distinction in the Middle Cornish spelling of these words that is actually found. We would expect confusion between <l> and <ll>, with perhaps more of the latter if the preceding vowel were really short.

P.D. Unless the scribes had learned the spellings from an earlier time .....

K.G. Can you really believe that ? I certainly can't. Dr Williams has to believe it, for it is the only way that he can explain the absence of confusion between /l/ and /ll/.

P.D. For the whole of the Middle Cornish phase ?

K.G. Yes, for three hundred years or more. The much more likely explanation is that /ll/ and /l/ were separate during that time. The quantity rules were still in place. /ll/ was preceded by a short vowel and /l/ by a vowel of mid-length. Only when the real prosodic shift occurred, after 1600, was there a change in this state of affairs.

P.D. Before we leave the subject of /ll/ and /l/, have you any comments on Dr Williams' /lh/, described as a "voiceless sonant" in *CT §8.4* ? They are mentioned in criticism C18:

C18) Kernewek Kemmyn has no voiceless sonants /rh/, /lh/, /nh/, even though such items were a feature of Middle Cornish.

K.G. It is highly significant that the alleged voiceless sonant /lh/ is found only in words which contain historical /ll/ (e.g. *pelha* 'further', found 14 times in *TH.)* or /lj/. Because Dr Williams believes that /ll/ had fallen together with /l/ as [l], he is forced into an incredibly contrived explanation to account for the presence of <lh> in those sets of words. He writes nothing about why the alleged sonant is not found in words containing historical /l/, e.g. ***kolonn*** 'heart'.

P.D. What is your explanation then ?

K.G. A much simpler one; that <lh> in words like *pelha* for ***pella*** 'further' and *telhar* for ***tyller*** 'place' is just an occasional spelling for /ll/; evidently /ll/ had a different phonetic character from /l/. In texts earlier than *TH.,* it was very rare; I have found only four possible examples:

MC.2462a	*tru a thu elhas elhas*
OM 1997	*cythol crowd fylh ha savtry*
BM 3757	*in guelhe preys*
BM 4395	*a alho gul dym gueres*

P.D. Do we know what the phonetic character was ?

K.G. Not really; the exact nature of sounds in Cornish is irrecoverable. It may represent a strengthening of [ll], just as [dn] represents a strengthening of [nn], but if so, the strengthening occurred earlier than the recorded date of pre-occlusion..

P.D. I've always been struck by the force with which some speakers pronounce /ll/ in the name ***Penngelli****;* tending towards the pronunciation of Welsh <ll> i.e. [ɬ]. And while we on the subject, what about /rh/ and /nh/ ?

K.G. Dr Williams' criticism C18 is unjustified, since neither these nor /lh/ were separate phonemes. I would classify <nh> in words like *vynha* 'wished' *(MC.1391b)* and *ynhy* 'in her' *(MC. 1822b)* as rare alternative spellings for /nn/. As for the medial [rh] which sometimes arose from [rθ], this was a development in Late Cornish, and there is therefore no need to take note of it in ***Kernewek Kemmyn****;* for the record, I can find only one example in Middle Cornish *(harhe* for ***hartha*** 'bolder' at *BM.2842),* as opposed to 185 examples with <-rth->.

P.D. Same old story of using minority spellings ! I would like to turn to another of Dr Williams' criticisms, which appears to be associated with double consonants:

C17) Kernewek Kemmyn posits a whole series of geminate consonants in Cornish: /pp/, /tt/, /ggh/, etc., none of which existed in the Middle Cornish period.

K.G. Before answering that, it must be pointed out that there is no such thing as /ggh/, which is a typographical error in *CT;* Dr Williams should have written either /xx/, or the grapheme <ggh> which represents it in ***Kernewek Kemmyn***.

P.D. Fair enough; but why does he think that geminate consonants did not exist in Middle Cornish ?

K.G. The implication of *CT §8.1* is that he believes that they existed before the prosodic shift, but not after it.

P.D. But if the prosodic shift did not occur until after 1600, as you have demonstrated .....

K.G. ..... then there were indeed geminate consonants in Middle Cornish. Whether they all had phonemic status is more difficult to determine. I think that they did, and the orthography of ***Kernewek Kemmyn*** is designed accordingly.

P.D. So can we dispense with criticism C17 ?

K.G. I think so; this is a case where we can rely on the refutation {Section 4} of the date of the prosodic shift. We we have already dealt {Section 10} with the orthographic issues raised in *CT §13.34.*

P.D. We seem to be making good progress.

K.G. There's a great deal still to consider.

[1] This was strikingly confirmed by:
BOCK, A. (2010) "Representation of intervocalic single /l/ and geminate /ll/ in *Sacrament an Alter*" Self-published. Available at https://www.academia.edu/283409.

12 Middle Cornish *pysy* and *pygy*

P.D. I hesitate to ask you about words like Middle Cornish *pysy* and *pygy,* because Dr Williams makes no specific mention of them in his criticisms, and because the subject inevitably leads one to think of the episode of <tj> and <dj>.

K.G. Please go on.

P.D. Could you amplify how you came to think of <dj> and <tj> in the first place ?

K.G. To answer that, we have to look back at the work which I did on the phonological history of Cornish in the early 1980s. The *s* in words like Middle Cornish *pysy* had been a *d* in Old Cornish. As part of the research, I drew up a table, reproduced as Fig. 12.1, in order to investigate the fate of Old Cornish /d/ between vowels.

Orthographic frequency analysis *Fig. 12.1*

FEATURE: Old Cornish /-d-/ between vowels,
but excluding cases where /-d-/ remained in Middle Cornish

PRINCIPAL EXAMPLES: ***boghosek*** (+V) 'poor', ***esa*** 'was', ***esov*** 'I am', ***galloesek*** (+V) 'mighty', ***gasa*** (+V) 'to leave', ***krysi*** (+V) 'to believe', ***Meryasek*** (saint's name), ***peghosow*** 'sins', ***pysy*** (+V) 'to pray', ***tressa*** 'third', ***usi*** 'is', ***wosa*** (+V) 'after'

Block -->OCV		MC+	ORD	BSM	TH+	CW+	L17	EDL	L18
<d>	12	0	0	0	0	0	0	0	0
<s>	0	**85**	**160**	**321**	**357**	**22**	1	3	3
<ss, ☪>	0	6	13	4	31	**16**	1	3	0
<z>	0	0	0	0	0	0	2	**10**	6
<g, i, y>	0	1	**102**	16	**78**	**14**	**6**	0	3
<dzh, dg> *etc.*	0	0	0	0	0	0	**17**	**42**	**13**
<di>	0	0	0	0	0	0	0	0	2
<r, rr>	0	0	0	0	4	0	**36**	**21**	**17**
<th>	1	0	0	1	0	0	0	0	0

P.D. What does this table show ?

K.G. A change in spelling from <d> in Old Cornish to a mixture of <s>- and <g>-types in Middle Cornish. I supposed that this represented a single phonetic change from [-d-] to some other sound.

P.D. What sound was that ?

K.G. I wrote (George, 1984, §13.2.2):
"The nature of the new sound is not obvious; its signifcant spellings were <s> and <g>. It cannot have been [s] or [z], or it would not have been spelled <g>; neither can it have been [ʤ], or it would not have been spelled <s>. It must have been a sound alien to English, which caused scribes to represent it usually by <s> or <g>, and occasionally by <ss> or <ʒ>. It is thought to be a palatalized [d]"

P.D. This was the sound that you came to write <dj>.

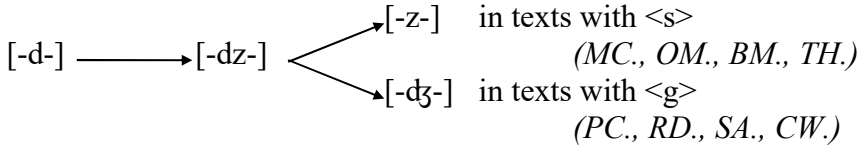
K.G. Yes, and its voiceless counterpart as <tj>.

P.D. The data in Fig. 12.1 are numerous, and you must have taken some time to collect them. In what way did you misinterpret them ?

K.G. By wrongly supposing that [d] developed into only one sound, thus:

[-d-] ⟶ [-ð-]

whereas, according to Dr Williams (1990) it eventually developed into two sounds, [z] and [ʤ].



P.D. How did you come to make this mistake ?

K.G. My treatment was a broad-brush one: I put too much into the table {Fig. 12.1}. I should have looked at the individual texts, instead of treating them in blocks; then I would have seen a difference between *OM.,* on the one hand, and *PC.* and *RD.* on the other.

P.D. So it was not a question of following Joseph Loth's ideas, as Dr Williams suggests *(CT §10.3).*

K.G. Not really. I had read all of Loth's papers on Cornish, of course; but I generally prefer to work things out for myself as well.

P.D. This is turning into a soul-searching session.

K.G. It was a sorry chapter while it lasted.

P.D. Everyone who heard your talk at St Ives thought you had tremendous guts to admit publicly that you were wrong. It didn't do you personally any harm.

K.G. I'm glad to hear you say that; but perhaps Cornish speakers were just relieved to get rid of <tj> and <dj>.

P.D. In *CT §13.35,* we find: "Dr George's relief signifies again that he was not convinced by his own hypothesis". Is this a fair statement ?

K.G. No. Dr Williams is trying mind-reading again.

P.D. Then you really believed that Cornish had a palatalized [d] and [t] ?

K.G. Certainly. I was not in the business of introducing strange sounds for the sake of it.

P.D. Did anything further come out of this unfortunate episode ?

K.G. Well, apart from a poem which appeared in ***An Gannas*** {Fig. 12.3}, I suppose that it spurred me to look even deeper into the problems of assibilation and palatalization. Although Dr Williams' 1990 paper was an improvement on previous work, I still felt that it was incorrect in some respects.

P.D. I am sure that anyone reading this will have seen a copy of *Cornish Today,* but not many people will have seen that earlier paper. Can you summarize it ?

K.G. That's quite a tall order, since it ran to 34 pages. The important part is Dr Williams' "solution" to the problem of *d > s;* this I have summarized in Fig. 12.2.

Dr Williams (1990) solution to the *d > s* problem (principal points) *Fig.12.2*

DATE	*CHANGE*	*PHONETIC ENVIRONMENT*	*TYPE-WORD*
before	[lt] > [lts]	medially	***gwelsek***
*c.*1100		finally	***als***
	[nt] > [nts]	medially	***kerensa***
	finally		***nans***
*c.*1100	[d] > [dz]	finally after a stressed vowel	***tas***
		finally after an unstressed vowel	***marghas***
		medially, before certain vowels	***boghosek***
		medially, before *w*	***peswar***
		after *n,* before a stressed front vowel	***an jydh***
		after *n,* before [j] + a stressed vowel	***an jowl***
	[lts] > [ldz]	medially	***gwelsek***
	[nts] >[ndz]	medially	***kerensa***
before date of texts	[dz] > [ʤ]	particularly (a) in western dialect (b) before stressed front vowels and [j]+ vowel	

P.D. There seem to be many different cases to consider.

Dhe Dhyw re bo grassys ! Nowodhow dhe les:
TJ ha DJ re bons tewlys dhe-ves !
Prederewgh orth hemma, ha lemmel rag joy :
Ny welyn ni TJI skrifys nevra namoy !

'Th o Nicholas Williams a hwilas an kas,
Ha profia karth lytherennow a-has;
Ha wosa gorhwithra y skrifenn pur hir,
Y koedh dhymm leverel bos ganso an gwir;
An remnans a'y baper kynth o nebes koynt,
Gans TJ ha DJ y hwelas an poynt:
Ny vedha an sonyow ma bythkweyth y'n yeth !
'Ma dhymm ankombrynsi, traweythyow meth,
Dh'avowa y'n mater ma my dhe vos kamm
Ha nag yw Kernewek amendys dinamm;
Mes kammwul yw tra a vydh gwrys gans pub den,
Ha lemmyn dhe'n taves hengovek 'th on len.

Alemma ple'th en ni ? Pyth yw dhe vos gwrys ?
Kildenna wor'tu ha Mordonnek, dhe'm brys:
Ytho, yn BLEUJENNOW ha JY, <j> a vydh;
Ynwedh yn A'N JEVES, AN JOWL hag AN JYDH,
BOLONJEDH, ha NIJA, pub eghenn a JI:
Yn geryow erell, an <s> gwithyn ni,
Ha skrifa YTH ESA hag USI pup-prys,
Ha SYNSI ha WOSA ha PYSI keffrys.

Ankevi a garsen an mater ma lemmyn;
Ny allsen vy tybi euthekka argemmyn.
Ytho, bydhyn lowen; Kernewek yw es:
TJ ha DJ yw defendys dhe-ves !

Fig. 12.3

Let's thank the Almighty ! The greatest of news !
TJ and DJ are no longer in use !
You'll leap for sheer joy when it's passed through your brain:
We'll never see TJI written ever again !

'Twas Nicholas Williams who looked at the case
And showed that these graphemes no longer have place;
And after re-reading his paper so long,
I must now admit that he's right and I'm wrong;
The rest of his paper was nonsense, I feel,
But with TJ and DJ his notions were real:
To existence these sounds never had any claim !
I'm sometimes embarrassed and covered in shame
To admit imperfection, and thereby lose face,
My fine reconstruction has fallen from grace;
But all make mistakes, or so we are told,
And now we are close to the language of old.

Which way can we go to recover our pride ?
Regress, I would reckon, towards Unified:
A'N JEVES, BLEUJENNOW and ***JY*** will have <j>,
AN JOWL will be spelled in a similar way,
BOLONJEDH, and ***NIJA,*** and all kinds of ***JI***:
In most other words an <s> we shall see,
YTH ESA and ***WOSA*** and ***USI*** to write,
Of ***SYNSI*** and ***PYSI*** get used to the sight.

I'd like to forget now this matter so sad;
I cannot conceive a more terrible ad.
Now Cornish is easy; let praises be sung:
TJ and DJ are expunged from our tongue !

K.G. Yes; the data in Fig. 12.1 should have been split up, not only on the basis of individual texts, but also on the basis of the phonetic environment of the original [-d-].

P.D. What do you mean by that ?

K.G. The phonetic environment means the nature of the vowels and consonants preceding and following the features under investigation, in this case, Old Cornish /d/ and /t/..

P.D. In what way did you feel that Dr Williams' solution was incorrect ?

K.G. Perhaps it would be best if we looked separately at the developments of Old Cornish /d/ and /t/. Those words which contained Old Cornish /d/ can be classified into at least the following groups:

(a) those in which /d/ was final, e.g. Old Cornish *tad* /tad/ 'father > Middle Cornish *tas;*

(b) those in which medial /-d-/ was followed by a vowel + a liquid or nasal consonant or /w/, e.g. ***peder*** 'four (f.)', ***reden*** 'fern', ***karadow*** 'lovable';

(c) those in which medial /-d-/ was followed by the vowel /i/ or /ɪ/, e.g. ***pysi*** 'to pray', ***krysyn*** 'we believe';

(d) two-syllable words in which medial /-d-/ was followed by a vowel other than /i/ or /ɪ/, e.g. ***pysav*** 'I pray'; ***esov*** 'I am';

(e) three-syllable words in which medial /-d-/ in a stressed syllable was followed by a vowel other than /i/ or /ɪ/, e.g. ***boghosek*** 'poor'.

P.D. That's a lot to think about !

Orthographic profile of *krys-V* and *pys-V* *Fig. 12.3*

(c) *V* means /i/ or /ɪ/

Text-->	MC.	OM.	PC.	RD.	BM.	TH.	SA.	CW.
<s>	15	20	4	3	40	25	0	0
<g>	0	1	12	37	0	4	3	3

(d) *V* means any vowel other than /i/ or /ɪ/

Text-->	MC.	OM.	PC.	RD.	BM.	TH.	SA.	CW.
<s>	3	7	8	12	21	1	0	5
<g>	0	0	0	0	0	0	0	0

K.G. There is no disagreement about group (b); these were the words in which /-d-/ usually remained, and Dr Williams provides a plausible explanation why this was . Group (a) presumably showed the phonetic development [-d] > [-dz] > [-z]. Data for groups (c) and (d) are tabulated in Fig. 12.3.

P.D. I note that there are no examples of <g> at all in Fig. 12.3(d), even in those texts which were noted as having palatalization.

K.G. This shows that the palatalization, as well as being text-dependent, was really dependent on the nature of the following vowel. Thus, in texts where palatalization did occur, we had the following:

[-d-] ⟶ [-dz-] ⟶ [-z-] before vowels other than /i,ɪ/ (and sometimes /ɛ/)

[-dz-] ⟶ [-ʤ-] before /i,ɪ/ (and sometimes /ɛ/)

In the other texts, the simpler development [-d-] > [-dz-] > [-ʤ-] applied. I have summarized cases (a), (b), (c) and (d) in Fig. 12.4.

Developments of Old Cornish /d/ *Fig. 12.4*

	(a)	(b)	(c)	(d)
CASE -->	/-'Vd/	/-'VdVC$_1$-/	/-'VdV$_1$/	/-'VdV$_2$/
TYPE-WORD -->	***tas***	***peder***	***pysi***	***pysav***
ENGLISH -->	'father'	'four (f.)'	'to pray'	'I pray'
Affrication [d] > [dz]	*yes*	*no*	*yes*	*yes*
Assibilation [dz] > [z]	*yes*	*no*	*sometimes*	*yes*
OR				
Palatalization [dz] > [dʒ]	*no*	*no*	*sometimes*	*no*
in Middle Cornish	['taːz] *tas*	['pɛːdɛr] *peder*	['pɪːzɪ] *pysy* OR ['pɪːʤɪ] *pygy*	['pɪːzav] *pysaf*

Here V stands for any vowel, V$_1$ for /i/ or /ɪ/ (or sometimes /ɛ/), V$_2$ for any vowel other than /i/ or /ɪ/ (or sometimes /ɛ/), and C$_1$ for /m/, /n/, /l/ or /r/.

P.D. If, in cases (a), (c) and (d), Old Cornish /d/ became [z] in Middle Cornish, why is it not written <z> in ***Kernewek Kemmyn*** ?

K.G. That's an awkward question ! I take responsibility. In case (a) I had privately experimented with <z>, and written ***taz*** and ***pryz*** in my diary instead of ***tas*** and ***prys,*** for 'father' and 'occasion'.

P.D. Ah ! Like Tim Saunders' spelling. Some people might that they look rather odd, but they're fine by me.

K.G. Only because <z> was not used in Unified Cornish, nor in Middle Cornish. Words with <dj> and <tj> look a great deal odder.

P.D. Why then didn't you advocate <z> ?

K.G. I foolishly allowed myself to be influenced by Dr Williams' statement (Williams, 1990, §19): "A historically accurate orthography can perfectly well indicate the phonemic reflexes of O[ld] C[ornish] *t, d* in M[iddle] C[ornish] with <t>, <d>, <ss>, <s>, <ch> and <j>, i.e. as is the case already in *Mordonnek*."

P.D. How ironic !

K.G. Thus in place of <dj> and <tj>, I substituted the distribution of <s> and <j> in use in Unified Cornish: as I wrote in the poem {Fig. 12.3}, "Regress, I would reckon, towards Unified".

P.D. Would Cornish speakers have accepted anything else, like <z>, at that critical time ?

K.G. Who knows ? At the time, I had no particular reason to doubt Dr Williams' abilities nor his conclusion. He had been very complimentary to me in the same paper, having written: "PSRC is an outstanding work of linguistic reclamation. ..... Over all, Dr George's method is sound and his enterprise is highly successful. There can be no doubt that most of his proposed orthography will replace both *Mordonnek* and the other systems that have been advanced by *Mordonnek's* disillusioned users."

P.D. What a contrast to his later prophecies ! I am thinking of the last two sentences in *Cornish Today (Supplement):* "Since it [***Kernewek Kemmyn***] is not Cornish in any real sense, it will not survive. The question is not whether it will be abandoned but rather, how soon."

K.G. Had I known then what I know now of Dr Williams' philosophy, viz. that he would like to stick as closely as possible to the orthography of the texts, then I would have paid less attention to the conclusion in his 1990 paper, and more to a sentence in §10 of that paper: "In fact the dental/alveolar inventory of M[iddle] C[ornish] is both simple and stable: (voiceless) /t:θ:s:ʧ:ʃ/; (voiced) /d:ð:z:ʤ:(ʒ)/."

P.D. Why is that important ?

K.G. Because it conflicts with his conclusion. In a phonemic orthography such as ***Kernewek Kemmyn***, each of these phonemes should have a unique grapheme associated with it. If I tabulate the same phonemes (except /ʒ/, which was marginal) with the graphemes used in Unified Cornish, also in ***Kernewek Kemmyn***:

PHONEMES	/t, d/	/θ, ð/	/s, z/	/ʧ, ʤ/	/ʃ/
GRAPHEMES	<t, d>	<th, dh>	<s, s>	<ch, j>	<sh>

it becomes evident that <s> is used for both /s/ and /z/. It would be better to use <z>.

P.D. I wonder if Cornish speakers would accept <z> now.

K.G. Again, who can tell ? Before contemplating any such modification, we would have to be quite sure in which words <z> would apply. So far, we have considered only the changes to Old Cornish /d/; perhaps we need also to look at the changes to Old Cornish /t/.

P.D. Time for a break !

13 ***boghosek***

P.D. Looking back at my notes, I see that we have not yet finished with /d/; we have still to deal with case (e).

K.G. Ah yes, ***boghosek*** 'poor' is the type-word for this case. I have separated it because it is different from the others.

P.D. In what way ?

K.G. It became clear to me, on re-examining the evidence, that in Middle Cornish, <g> was hardly ever used in words like ***boghosek*** {Fig. 13.1}.

Orthographic profile of words like *boghosek* 'poor' in texts *Fig. 13.1*

This analysis applies to words of more than two syllables in which Old Cornish /-d-/ was followed by a vowel other than /i/ or /ɪ/,

e.g. in ***-ek:*** ***boghosek*** 'poor';
in ***-enn:*** ***logosenn*** 'mouse'
in ***-ow:*** ***peghosow*** 'sins'

Block -->	OCV	MC+	ORD	BSM	TH+	CW+	L17	EDL	L18
<d>	6	0	0	0	0	0	0	0	0
<s>-type	0	1	30	188	73	7	0	3	6
<j>-type	0	0	1	1	0	1	3	14	4
Other	0	0	0	0	0	0	0	0	2

P.D. I note only two instances.

K.G. These are *gallogek* 'mighty' at *RD.2376,* and *clevegov* 'diseases' at *BM.1457.* The latter is all the more remarkable, because in general, *BM.* is a non-palatalizing text.

P.D. Were you able to check this result using data from place-names ?

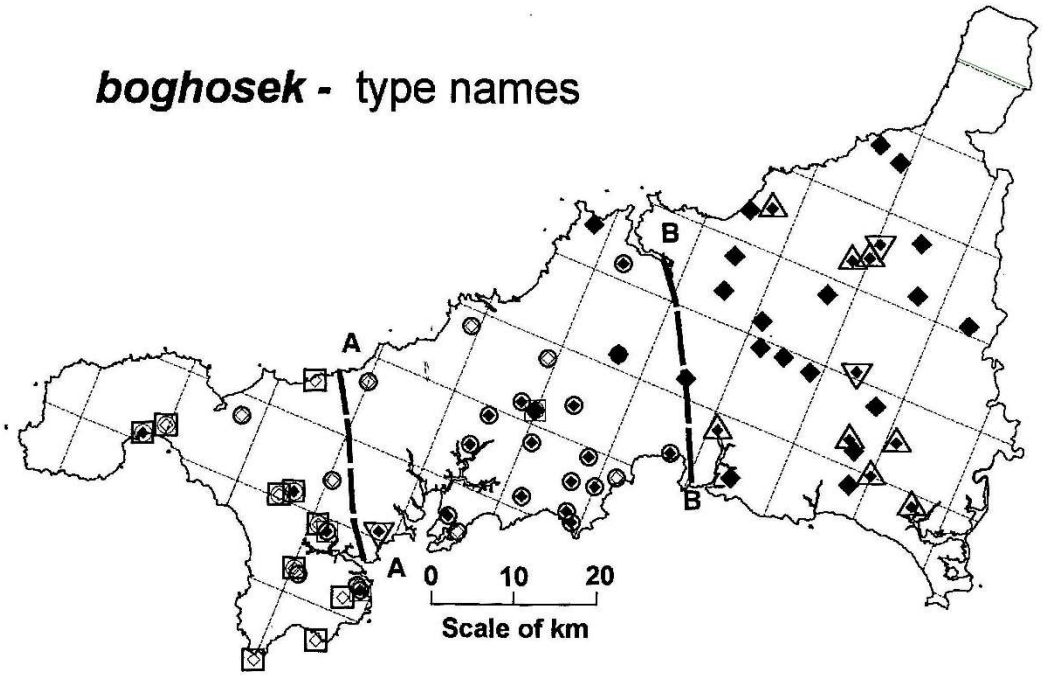
K.G. Yes; I listed all the place-names with the same characteristics as the words used to construct Fig. 13.1.

P.D. Such as ?

K.G. Such as *Tregassick* (Mevagissey), which is ***tre*** + the Old Cornish name *Cadoc.* Then I drew a map {Fig. 13.2} showing the distribution of these places. The map shows that:

(a) names with <j>-type spellings (i.e. <g>, <dg> and <j>) are found almost without exception to the west of the line AA (roughly in the hundreds of Penwith and Kerrier);

Fig. 13.2



◆ <d>-type on modern map, and throughout history

◆ <d>-type recorded historically, but replaced by a later type

◇ <d>-type not recorded historically

△ <th>-type on modern map

▽ <r>-type on modern map

○ <s>-type on modern map

○ <s>-type not on modern map, but recorded historically

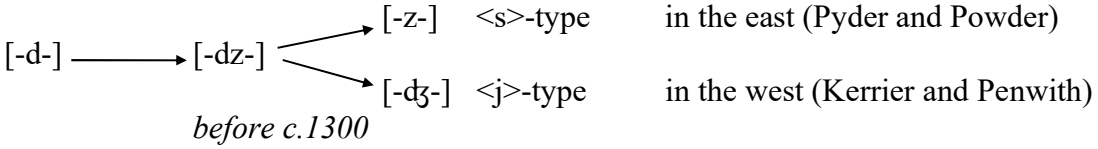
□ <j>-type on modern map

□ <j>-type not on modern map, but recorded historically

(b) the area between the lines AA and BB (roughly the hundreds of Pyder and Powder) contains mainly names with <s>-type spellings.

P.D. No doubt Dr Williams regards this geographical distribution as evidence of dialectal variation.

K.G. Yes, it fits in to some extent with his dialectal hypothesis, described in *CT§10.5.* It may be summarized like this:



P.D. Is he right ?

K.G. His hypothesis explains some of the observations, but not all. Yet his is not the only possible explanation, and certain facts lead one to suspect that he may not be right in the case of ***boghosek***-type words.

P.D. What facts are these ?

K.G. Firstly, the result already mentioned; that in the texts, <j>-type spellings in these words are practically unknown until the seventeenth century. Secondly, the same result for place-names: Fig. 13.3 shows that during the period 1350 to 1650, <j>-type spellings were very rare; as in the texts, <s> was used almost exclusively. Thirdly, on the modern map, the <j>-type spellings are found to the west of the line AA. Lastly, the eastern limit of the Cornish-speaking area in the mid-seventeenth century was close to the line AA.

Orthographic profile of words like *boghosek* in place-names *Fig. 13.3*

	Penwith, Kerrier			Pyder, Powder		
TYPE -->	<d>	<s>	<j>	<d>	<s>	<j>
1250-99	4	1		8	3	
1300-49	3	15	6	29	17	1
1350-49	1	7	1	5	12	
1400-49		1	1	4	6	
1450-99		..1		1	5	
1500-49		1		2	6	
1550-99		5			3	
1600-49		1		4	3	
1650-99		7	6	2		
1700-49			1	1	2	
1750-99			1			

P.D. What does all this mean ?

K.G. All this is consistent with the hypothesis of retreat, i.e. that a change took place in Cornish from <s>-type to <j>-type spellings, *circa* 1675, and that only those areas where Cornish was still spoken show the change.

P.D. A similar argument to that for pre-occlusion, but further west ?

K.G. Exactly. I thought these results sufficiently important to be published.

P.D. Where did you publish them ?

K.G. In a book dedicated to the memory of Professor Léon Fleuriot.

P.D. Ah, the celebrated Breton Celticist.

K.G. Yes, and in my view, one of the greatest Celtic scholars of our time; he died in 1987. He was one of the few academics who really supported the cause of Revived Cornish, and was able to speak it. For this reason, I actually wrote the paper in Cornish.

P.D. It must be comparatively unusual to publish papers on linguistics in Cornish.

K.G. I'm sure that it is. Dr Williams has read the paper, because he comments on it in *CT §§11.16, 17.*. Unfortunately, he misunderstands the fact that my remarks referred only to words like ***boghosek****,* and criticizes me as if they referred to all cases of palatalization of [d].

P.D. You mean that he over-generalized ?

K.G. He did. Another misconception on his part, which we may as well knock on the head, is that I ever believed in his dialectal hypothesis concerning the distribution of *s* and *j*. I mention this because he repeats this falsehood in his article in *Cornish Studies: "*At first Ken George accepted this explanation". It's just not true.

P.D. Why does Dr Williams think that you did accept his hypothesis, then ?

K.G. I suppose from the report in *Carn* made by Robert Bye on my talk on the subject at the Cornish Language Weekend in April 1989 *(CT §11.1).* Remember that my talk was in Cornish, Robert Bye's report was in Welsh, and Dr Williams' remarks are in English: there is room here for misunderstanding !

P.D. This is getting rather detailed.

K.G. I agree, but it is one thing to have to defend one's ideas on the language, and quite another to have false beliefs attributed to one.

P.D. Let's get back to words like ***boghosek***.

K.G. In my paper, I observed that in these words:

<d> > <s> > <j> spelling types

*c.*1300 *c.*1675

Now <d> must mean [d] and <j> must mean [ʤ], but what does <s> mean ? In my paper, I left this as an open question.

P.D. That's dodging the issue.

K.G. Maybe it is. In *CT §11.16,* Dr Williams takes it to mean an assibilation. His statement "I do not believe that Old Cornish *-d-* passed through a stage *-s-* before becoming /ʤ/" is an appalling example of confusion between the graphemes used, and the sounds which they represented. Analyses of the texts and the place-names {Figs. 13.1 and 13.3} suggest very strongly that the spelling-types changed from <d> to <s> to <j>. The evolution of the sounds is another matter.

P.D. Dr Williams is emphatic *(CT §10.2)* that [ʤ] could not have come from [z].

K.G. We cannot rule it out altogether. The change [z] > [ʤ] certainly took place in other phonetic environments, and at about the same time (seventeenth century), as is shown in Fig. 13.4. In words like ***boghosek,*** the place-name *Trevega* (Sennen) evidently contains a <j>-type spelling, representing the sound [ʤ], but its historical forms, like *Trevissa* 1523, suggest that the name is ***trev isa*** 'lower farm': it appears to be a rare case of [s] developing into [ʤ]. Nevertheless, I agree that in general, the developments of Old Cornish /-d-/ in place-names like *Tregassick,*.and Old Cornish /-s-/ in place-names like *Poldrissick* (i.e. ***poll dreysek*** 'brambly pit') were kept apart.

Orthographic profile of words like *mynnsen* and *gallsen* *Fig. 13.4*

Block -->	MC+	ORD	BSM	TH+	CW+	L17	EDL	L18
<s>	4	27	19	21	11	0	0	0
<ss>	1	0	0	0	0	0	0	0
<dzh, j *etc.*>[1]	0	0	0	0	0	12	6	3
<gh>	0	0	0	0	0	0	0	0
<y>	0	0	0	0	0	1	0	0
<zh>	0	0	0	0	0	0	2	0

1 <dzh, j, g, gi>

P.D. In what way were they kept apart ?

K.G. I have summarized this in Fig. 13.5. Those names containing original /-d-/ were spelled with a mixture of <j>-types and <s>-types in Late Cornish, and those containing original /-s-/ were spelled (almost) exclusively with <s>-types.

Summary of commonest spellings *Fig. 13.5*

	Words like ***boghosek***		Words with Old Cornish /-s/		
	Kerrier Penwith	Powder Pyder	Kerrier Penwith	Powder Pyder	
1300-1450	<d, s, g>	<d, s>	<s>	<s>	
1450-1600	<s>	<d, s>	<s>	<s>	*CORNISH*
1650-1800	<dg, ss>	<d, ss>	<ss>	<ss>	*ENGLISH*
Modern maps	<dg,ss>	<d, ss>	<ss>	<ss>	

Note that 14th-century <g> does not necessarily mean the same as 18th-century <dg>.

P.D. Can you now suggest which sounds these spelling-types represent ?

K.G. Yes. For words like ***boghosek***, an alternative hypothesis is that:
(a) The spelling change *d > s, circa* 1325 represents the sound-change [d] > [dz];
(b) The almost exclusive spelling <s> in Middle Cornish means [dz];
(c) The spelling change *s > dg, circa* 1675, represents the sound-change [dz] > [ʤ];
(d) The reduction [dz] > [z] took place in English, not in Cornish.

P.D. Does this hypothesis fit all the facts ?

K.G. No; it does not easily explain the existence of fourteenth-century <g>, nor the fact there were more examples of it in the west than in the east.

P.D. Let me get this right; if Dr Williams is correct, then <s> in Middle Cornish means [s] in both sets of words (those with Old Cornish /d/ and /s/), ...

K.G. Not quite; <s> might mean [s] in the /s/ words and [z] in the /d/ words.

P.D. ..... whereas in your alternative hypothesis, <s> means [s] in the /s/ words and [dz] in the /d/ words.

K.G. Yes, at least in Cornish, as opposed to anglicized forms of place-names.

P.D. If that is correct, then we ought to distinguish the two sounds in writing.

K.G. This all shows that Tim Saunders' idea of using <z> for the <s> which had come from Old Cornish /d/ is quite a sensible one, even if the sound which it represents is debatable.

P.D. I always thought that consonants were easier than vowels, but now, after looking at what happened to Old Cornish /d/, I'm not so sure.

K.G. There is a lot more which we could discuss, the fate of Old Cornish /lt/ and /nt/, for instance. The topic is an extensive one, and very complex; and whatever we say won't be the last word on it; it will run and run.

P.D. Then let's change the subject. You have shown that Dr Williams' ideas are not necessarily correct.

There is more on this topic at http://www.cornishlanguage.info/CorLing/phon/shaj.pdf. The distribution of <s>-forms appears partly dialectal (<s>-forms are favoured in Powder hundred), and partly one of class (<s>-forms had a higher social status than <j>-forms).

14 ***mires*** and ***gwella***

P.D. Let's leave consonants, and return to vowels. I think that we had said enough about stressed vowels, and therefore need to consider unstressed vowels. I understand that any vowel which is not stressed must be unstressed.

K.G. Correct. If an unstressed vowel comes in a word before the stressed vowel, it is called pre-tonic; if it comes after the stressed vowel, it is called post-tonic. All unstressed vowels are short.

P.D. Please give me an example.

K.G. The word ***yndella*** 'thus' has three vowels. As in most Cornish words, the stressed vowel is that in the penultimate syllable,. viz. ***e***. The ***y*** is pre-tonic, and the ***a*** is post-tonic.

P.D. The only criticism concerning unstressed vowels is C13:

C13) Kernewek Kemmyn attempts to distinguish quality in unstressed vowels even though all unstressed vowels are schwa from the Middle Cornish period onwards.

I understand that schwa is a neutral vowel.

K.G. Yes, it is a central vowel with no particular qualities, denoted phonetically by [ə]. It occurs in unstressed syllables in English words, e.g. *a* in ***a****go, e* in *gentlem****e****n, i* in *poss****i****ble, o* in ***o****blige, u* in *s****u****ppose.*

P.D. Are all unstressed vowels in English schwa ?

K.G. No; in standard English, some are schwa, but others are [ɪ]. The spelling of unstressed [ɪ] may vary considerably, however, as in *village cricket* ['vɪlɪʤ 'krɪkɪt], for example.

P.D. You say "in standard English" .....

K.G. Yes, Received Pronunciation, if you like; I was thinking of the contrast with Australian English, in which there is a tendency to reduce all unstressed vowels to schwa.

P.D. Hmm ... yes, I have Australian relations; they would say ['vɪləʤ 'krɪkət].

K.G. Exactly.

P.D. So, according to Dr Williams' ideas, all you need is an Australian accent, and you can pronounce any unstressed vowel in Cornish quite naturally !

K.G. In *CT §13.33,* he makes the sweeping statement: "Even a cursory look at the texts would show that the unstressed vowel ..... was schwa".

P.D. A cursory look doesn't sound like the meticulous methodology one might expect of a professional Celticist.

K.G. No, but let's not get personal. I don't believe that matters are as simple as that. Unstressed vowels in traditional Cornish are particularly difficult to study, because the signal-to-noise ratio is much less than in stressed vowels, particularly stressed vowels in monosyllables.

P.D. Could every vowel in Cornish have both a stressed and an unstressed form ?

K.G. No; it is clear that there were fewer unstressed vowels in Cornish than there were stressed vowels.

P.D. How many stressed vowels were there ?

K.G. In Middle Cornish, there were nine: /i, ɪ, ɛ, a, ɔ, o, u, œ, y/, distinguished in ***Kernewek Kemmyn*** by the nine graphemes <i, y, e, a, o, oe, ou, eu, u>.

P.D. And how many unstressed vowels ?

K.G. That depends on whether we are talking about open or closed syllables. I shall also confine myself to talking about post-tonic vowels.

P.D. Please could you give me some type-words ?

K.G. For a post-tonic vowel in a closed syllable, take the ***e*** in ***mires*** 'to look'; and for one in an open syllable, take the ***a*** in ***gwella*** 'best'.

P.D. O.K. How many unstressed vowels were there in open syllables ?

K.G. Apparently only four: /i/, as ***i*** in ***pysi*** 'to pray'; /ɔ/, as ***o*** in ***ganso*** 'with him'; /a/, as ***a*** in ***ena*** 'there'; and /ɛ/, which does not appear in ***Kernewek Kemmyn*** for reasons which I shall come to later.

P.D. What happened to the unstressed counterparts of the five other stressed vowels ?

K.G. /œ/ had been reduced to [ɛ]; and /ɪ/, /y/, /o/ and /u/ were so marginal as to be practically non-existent.

P.D. What about closed syllables, then ?

K.G. Three of the nine stressed vowels had no unstressed counterparts; these were:

(a) /œ/, which was reduced to [ɛ]; in the termination [-œk] in place-names, this change occurred between 1150 and 1300, with a central date of *c.* 1225 (George, 1992);

(b) historical /i/ was realized as [ɪ]; i.e. the difference between /i/ and /ɪ/ was neutralized;

(c) historical /y/ was realized as [ɪ]; i.e. the difference between /y/ and /ɪ/ was neutralized.

Thus there were effectively six unstressed vowels in closed syllables: /ɪ, ɛ, a, ɔ, o, u/.

P.D. By my reckoning, this means that unstressed /o/ and /u/ occurred in closed syllables, but not in open syllables.

K.G. /u/ occurred only in loan-words like *doctour, savyour.* /o/ is more interesting. You will recall that /o/ arose in words like ***troes*** 'foot' when Old Cornish /ui/ became a diphthong. The question is: what happened to this diphthong when it occurred in an unstressed position ?

P.D. Are there many words which words exemplify this ?

K.G. Quite a few. Dr Williams discusses them at some length in *CT §7.14.* He notes, quite rightly, that ***eglos*** 'church' was most commonly spelled with <o>, while ***kavoes, galloes*** and ***arloedh*** were often spelled with <u>. To these three we may add ***profoes*** 'prophet'. He suggests that in these cases, <u> meant [o].

P.D. What does he mean by that ?

K.G. According to the Glossary, "Schwa pronounced with the lips rounded as for [ɔ]". I have suggested that <u> meant [ɤ], a sound similar to that of *u* in *bus,* but closer. The exact sound is irrecoverable; the important fact is that it was perceived as different from other unstressed sounds, and furthermore associated with the corresponding phoneme in stressed syllables.

P.D. How do we know that ?

K.G. Because of the way in which the words containing it were rhymed with words containing its stressed counterpart. In Fig. 14.1, I have listed all the rhymes which I can find for ***galloes, kavoes*** and ***arloedh***. If the unstressed vowel in these words were schwa, then they could be rhymed with almost anything. They are not. It is quite remarkable how they are rhymed, in almost every case, with a word containing /o/, and therefore spelled <oe> in ***Kernewek Kemmyn.*** This not only shows that the unstressed vowel was not schwa, but it reinforces the arguments already adduced {Section 5} to demonstrate that /ɔː/ and /oː/ had not fallen together.

P.D. This is very clear.

K.G. It is. It shows that the composers perceived these three words as containing the same phoneme as that in words like ***boes*** 'food' and ***goes*** 'blood'. It has enabled me to identify that the word ***terroes*** 'destruction' should be thus spelled, and not ***terros,*** as it appears in *GLKK.*

Rhymes of *galloes, kavoes* and *arloedh* in Middle Cornish *Fig. 14.1*

galloes 'power'		***kavoes*** 'to get'	
MC.135	***goes, oes, troes***	*OM..553*	***terroes***
MC.224	***goes, gloes, angoes***	*PC..985*	***profoes***
OM...70	***goes, loes, troes***	*PC.1531*	***terroes***
PC...21a	***loes, skoes***	*PC.2068*	***troes***
PC...44b	***terroes***		
PC...53	***roes***		
PC..788	***loes, oes***		
RD..331b	***goes, loes***	***arloedh*** 'lord'	
RD..540	***boes***	*OM.1923*	***degoedh***
RD..834	***goes***	*PC..203*	***degoedh***
RD..966	***loes***	*PC.1034*	***(bodh), kevarwoedh, koedh***
RD.1183	***goes***	*PC.2189*	***koedh***
BM..233	***unnwoes***	*RD..149*	***degoedh***
BM..282	***loes, moes***	*RD..874*	***degoedh***
BM.2062	***goes***	*RD..966*	***loes***
BM.2387	***goes***	*RD.1183*	***goes***
BM.2675	***(poenvos)***		
BM.3217	***(gwylvos)***		
BM.3305	***(mos)***		
BM.3497	***(os)***		
BM.4244	***boes***		

P.D. Could you summarize all the information so far discussed in one of your useful diagrams ?

K.G. Try Fig. 14.2.

Summary of unstressed vowels in Middle Cornish *Fig. 14.2*

HISTORICAL PHONEME (in stressed monosyllables)	in unstressed post-tonic syllables of polysyllables	
	CLOSED SYLLABLES	OPEN SYLLABLES
/i/	> /ɪ/	/i/
/ɪ/	/ɪ/	marginal
/ɛ/	/ɛ/	/ɛ/
/a/	/a/	/a/
/ɔ/	/ɔ/	/ɔ/
/o/	/o/	marginal
/u/	/u/	marginal
/œ/	> /ɛ/ *c.*1225	> /ɛ/ *c.*1225
/y/	> /ɪ/	marginal

P.D. You claim that there were up to six different unstressed vowels in Middle Cornish, whereas Dr Williams reckons that there was only one, viz. schwa. Have I understood your standpoints correctly ?

K.G. So far as my ideas are concerned, yes; but when you read Dr Williams' writings in detail, various inconsistencies appear:

(a) In *CT§13.39* he boldly asserts that "all unstressed vowels are schwa from the Middle Cornish period onwards"; yet .....

(b) In *CT§7.11* he admits that unstressed /ɪz/ occurred in Middle Cornish.

(c) In *CT§7.12* he admits that unstressed /ɪ/ occurred in Middle Cornish.

(d) In *CT§7.15* he admits in effect that unstressed /ɪ/ and /o/ may have existed in the sixteenth century.
To disguise the fact that these sounds were found also in Late Cornish, in *CT§7.15,* he uses schwa as a phonemic rather than a phonetic term, so that his /ə/ includes as allophones [ə], [ɪ], [o] and [a].

P.D. Crafty !

K.G. His discussion is very short on dates, but in *CT§7.4,* we read "..... in the later fourteenth century final inherited /e/, /a/ and /o/ were all /ə/". I believe that the dating here is incorrect.

P.D. How can you demonstrate that ?

K.G. We need to examine four orthographic profiles. Take that of unstressed /ɛ/ in closed syllables {Fig. 14.3}. In Old and Middle Cornish, the commonest spelling was <e>, and in Late Cornish, it was <a>, a change noted by Lewis and Pedersen. It represents a sound-change from [ɛ] to [a], or perhaps [ə].

Orthographic profile of unstressed /-☜/ in closed syllables *Fig. 14.3*

Block-->	OCV	MC+	ORD	BSM	TH+	CW+	L17	EDL	L18
<e>	20	**133**	**1034**	**622**	**385**	**51**	**49**	**56**	**38**
<a>	0	**60**	46	43	**450**	**316**	**101**	**75**	**104**
<ee>							3		
<ea>									1
<y,i>		11	39	45	88	18	2	4	2
<o>	4	1	4	3	1	4	8	3	12
<u>			1			1			
<ey, ei>	1		3	10					
<ay>				10					
<∇>							10		9

P.D. When did this sound-change take place ?

K.G. In block TH+ (the Tregear Homilies and Sacrament of the Altar), spellings in <e> and in <a> were roughly equal in number, showing that the central date of the change was in the sixteenth century. It is important to remember, however, that the change was rather slow. Many years ago (George, 1983), I showed that it took about two hundred years to complete, from *c.*1450 to *c.*1650.

P.D. Isn't this the same change as *-ek* to *-ack* in place-names ?

K.G. Yes, it is; well spotted ! We can date that, too; the central date of the change is *c.*1525 (George, 1992), about 25 years earlier than the date as derived from the texts.

P.D. Is the difference in dates significant ?

K.G. I don't think so. The next case is that of unstressed /ɔ/ in closed syllables, which underwent a similar change {Fig. 14.4}, though there are fewer examples. The central date may have been slightly later: in *PSRC,* it was assigned to *c.*1575.

Orthographic profile of unstressed MidC /ɔ/ in final closed syllables *Fig. 14.4*

Examples: ***gortos*** 'to wait', ***ladron*** 'thieves', ***ragon*** 'for us', ***ragos*** 'for thee'.

Block-->	OCV	MC+	ORD	BSM	TH+	CW+	L17	EDL	L18
<o>	4	**57**	**205**	**86**	**90**	**8**	0	10	1
<a>	0	0	1	8	**72**	**32**	4	11	2
<oy,oe>				2					
<e>		1	2	**12**	3	2	4	5	1
<y,i>				2	6			1	
<ay>				1					

P.D. Were there similar changes to /ɛ/ and /ɔ/ in open syllables ?

K.G. Yes, again they both ended up being spelled as <a>. The data for /ɛ/ {Fig. 14.5} show that spellings in <-e> greatly outnumber those in <-a> in blocks MC+ and ORD, and *vice versa* in blocks TH+ onwards. In block BSM the numbers are more evenly balanced. This suggests that the central date of this change is just before the date of *BM.*; in *PSRC* I assigned it to *c.*1475.

P.D. Why is there a greater proportion of <-a> spellings in *MC.* than in the Ordinalia, even though *MC.* was written first ?

K.G. This is only one of a number of features in which *MC.* appears to be more advanced than the Ordinalia. Even though Brian Murdoch showed that *MC.* was composed first (Murdoch, 1981), it may be that the extant MS. of *MC.* is later than that of the Ordinalia, and has been up-dated.

Orthographic profile of unstressed /-ə/ *Fig. 14.5*

Principal examples used:
1) Pronominal prepositions relating to the 3rd person plural, e.g.:
anedha 'of them', ***dhedha*** 'to them', ***gansa*** 'with them';
2) Verbs relating to the 3rd person singular, e.g.:
esa 'was', ***via*** 'would be', ***kemmersa*** 'he would take'
3) Other words: ***arta*** 'again'.

Block -->	OCV	MC+	ORD	BSM	TH+	CW+	L17	EDL	L18
<e>	1	**289**	**809**	**158**	79	0	10	8	2
<a>	0	**57**	38	**233**	**823**	**248**	**97**	**73**	**77**
<ea>			1						
<ah>							6		1
<y,i>		1		2	3		1	1	2
<o>		1	3	1		1			
<ow>									2

P.D. How do you interpret the change <e> to <a> in terms of sounds ?

K.G. <e> usually meant [ɛ], and <a> usually meant [a].

P.D. Dr Williams thinks that <a> meant schwa.

K.G. There's not a lot of difference between [a] and [ə]. The occasional spellings <ah> in Late Cornish suggest to me that the result of the sound-change was [a] rather than [ə]. Dr Williams agrees that <ah> meant [a], but prefers to regard this [a] as an allophone of /ə/.

P.D. Is it possible to check this sound-change from place-name data ?

K.G. To some extent. The change is evident in place-names such as *Hendre* > *Hendra* 'ancient farmstead'. An analysis of the frequencies of forms in <-e> and forms in <-a> suggests a central date of *c.*1500 for the change. The last case which we need to consider is that of unstressed /ɔ/ in open syllables {Fig. 14.6}

Orthographic profile of unstressed /-ɔ/ *Fig. 14.6*

Principal examples used:
1) Pronominal prepositions and verbs relating to the 3rd masculine singular:
anodho 'of him', ***deffo*** 'may he come', ***dhodho*** 'to him',
dredho 'through him', ***gallo*** 'may he be able', ***ganso*** 'with him',
gwrello 'may he do', ***a'n jeffo*** 'may he have', ***orto*** 'at him',
ragdho 'for him', ***warnodho*** 'on him', ***ynno*** 'in him'
2) Other words: ***dhymmo*** 'to me', ***dhiso*** 'to thee'.

Block -->	MC+	ORD	BSM	TH+	CW+	L17	EDL	L18
<o>	**104**	**641**	**181**	**24**	**47**	0	11	0
<a>	0	0	**54**	**200**	**103**	**35**	6	6
<e>	4	21	20		1	1	6	
<ow>				1				
<∇>								1

P.D. I'll do the analysis this time. Fig. 14.6 shows that <o> changed to <a> between the time of *BM.* and *TH.*

K.G. Good. Because of this, I assigned a central date of *c.*1525. In Fig. 14.7, I have summarized the central dates of all the sound-changes to unstressed vowels discussed hitherto.

Central dates of sound-changes in unstressed vowels *Fig. 14.7*

UNSTRESSED SYLLABLES	CLOSED	OPEN
	/ɛ/ ⟶ /a/	/ɛ/ ⟶ /a/
Central date (texts)	*c.*1550	*c.*1475
Central date (place-names)	*c.*1525	*c.*1500
	/ɔ/ ⟶ /a/	/ɔ/ ⟶ /a/
Central date (texts)	*c.*1575	*c.*1525

P.D. Why all this concentration on dates ?

K.G. Because the date of the phonological base of ***Kernewek Kemmyn*** is dependent on these.

P.D. In what way ?

K.G. This is quite a long story. It all revolves around verbal nouns in ***-a,*** (e.g. ***ladha*** 'to kill') and in ***-ya*** (e.g. ***poenya*** 'to run').

P.D. I don't see the connection with dates, but please go on.

K.G. In the Ordinalia, these verbs ended in <-e> and <-ye>, yet Nance used <-a> and <-ya> in Unified Cornish. To use <-a> and <-ya> rather than <-e> and <-ye> is equivalent to choosing a date after the central date of the change /-ɛ/ > /-a/ in Middle Cornish.

P.D. After *c.*1475, according to the textual evidence in Fig. 14.7.

K.G. Yes, and before *c.*1525, because words ending in unstressed /-ɔ/, like ***dhodho*** 'to him', are spelled with <-o> rather than <-a>. This gives a date of *c.*1500. Similarly, the use of <-a> and <-ya> in verbal nouns in ***Kernewek Kemmyn*** implies a date of *c.*1500 for the phonological base. The choice of date has nothing to do with the date of *Beunans Meriasek.*

P.D. In ***Kernewek Kemmyn****,* why did you spell these verbs with <-a> and <-ya> rather than with <-e> and <-ye> ?

K.G. To reduce the change from Unified Cornish, and also because I had mentally connected these verbs in <-a> and <-ya> with their cognates in Breton (e.g. Breton *lazhañ* 'to kill', *poaniañ* 'to run'). I, and probably other Celtic scholars as well, thought that the verbal noun endings in both Breton and Cornish arose from British **-ama* and **-jama,* giving Primitive Cornish /-aμ/ and /-jaμ/.

P.D. Why then were they spelled <-e> and <-ye> in the Ordinalia ?

K.G. I was unable to provide a satisfactory answer to that. Why should Primitive Cornish /-aμ/ give Middle Cornish <-a> in superlatives and <-e> in verbal-noun endings ? In *PSRC,* I drew attention to stanzas in which rhymes in <-e> contrasted with rhymes in <-a>, without resolving the question, e.g.

PC..439	*ny amont travyth hemma*	A	[a]
PC..440	*cayphas ny yllyn spedye*	B	[ɛ]
PC..441	*yma ol tus an bys ma*	A	[a]
PC..442	*yn certan worth y sywe*	B	[ɛ]

P.D. Has Dr Williams anything to say on this matter ?

K.G. Yes, in the middle of §7.2 of *CT,* almost as an aside, he makes the interesting suggestion that the verbal noun suffixes in Cornish arose from "British **-ima* with *a*-affection of the /i/".

P.D. This seems more plausible.

K.G. It does; but he still has to account for the differing developments in Breton and in Cornish.

P.D. Where does this leave us so far as ***Kernewek Kemmyn*** is concerned ?

K.G. I think that we have to stick with the position as it has evolved; i.e. to continue to spell verbal nouns with <-a> and <-ya>, and to continue to use <-a> for other words {Fig. 14.5} which had unstressed /-ɛ/ in Middle Cornish. We need to recognize that such words were spelled <-e> in Middle Cornish, and rhymed with words containing stressed /-ɛ/, such as *tre* 'home'. Such rhymes are not available in ***Kernewek Kemmyn***. Instead, we may rhyme the words in Fig. 14.5 with words containing Middle Cornish /-a/.

P.D. Is this serious ?

K.G. No; speakers using both Unified Cornish and ***Kernewek Kemmyn*** have been following this practice for decades.

P.D. Have we now finished with unstressed vowels ?

K.G. Not really. We need to examine the evidence of rhymes.

P.D. Let's pause first.

15 Rhymes

P.D. You wanted to talk about rhymes.

K.G. Yes; the key to understanding the problem of unstressed vowels is to be found in the rhyme schemes used in Middle Cornish verse.

P.D. Dr Williams gives the impression that if two words were rhymed, then their last syllables contained the same sounds; but I always thought that the rhymes were much looser than this.

K.G. The subject is not easy, and I have had several goes at it over the years before figuring out what was really going on. The rules of versification were different from those in English.

P.D. Tim Saunders has written about this in *Kernow.* What are your findings ?

K.G. The most obvious difference is that, as in Welsh and Breton poetry, stressed final syllables were rhymed with unstressed final syllables. It appears that there were three types of rhyme:

(a) **perfect** or true rhymes ***(rimyow perfyth)***, which include both stressed and unstressed rhymes;

(b) rhymes which were technically **imperfect**, but quite acceptable in verse ***(rimyow isperfyth)***;

(c) **poor** or rotten rhymes, used only when the poet was really stuck.

P.D. Please give some examples.

K.G. Take the first stanza of *Origo Mundi,* spoken by God the Father. Here we have the start of the whole trilogy of the Ordinalia. It has to be impressive, it has to be right. Its eight lines contain, as one might expect, only perfect rhymes:

OM	1	*En tas a nef ym gylwyr*	A	[-iːr]	
OM	2	*formyer pup tra a vyt gvrys*	B	[-'ɪːs]	
OM	3	*Onan ha try on yn+gvyr*	A	[-'iːr]	
OM	4	*en tas han map han spyrys*	B	[-ɪs]	
OM	5	*ha hethyv me a thesyr*		A	[-ir]
OM	6	*dre ov grath dalleth an beys*	B	[-'ɪːs]	
OM	7	*y lauaraf nef ha tyr*	A	[-'iːr]	
OM	8	*bethens formyys orth ov brys*		B	[-'ɪːs]

The rhyme-scheme is ABABABAB; where the A-rhymes are [-ir] and [-'iːr], and the B-rhymes are [-ɪs] and [-'ɪːs] (or perhaps [-'ɪːz]). [1]

P.D. Does God the Father's speech continue with perfect rhymes ?

K.G. In the second, third and fourth stanzas, yes. Then in the fifth stanza we read:

OM	33	*yn peswere gvreys perfyth*	A	[ɪð]
OM	34	*then beys ol golowys glan*	B	['aːn]
OM	35	*haga hynwyn y a vyth*	A	['ɪːð]
OM	36	*an houl han lor han stergan*	B	[an]
OM	37	*my a set ahugh an gveyth*	A	['ɪːð]
OM	38	*yn creys an ebron avan*	B	['ann]
OM	39	*An lor yn nos houl yn geyth*	A	['ɪːð]
OM	40	*may rollons y golow splan*	B	['ann]

Here all of the A-rhymes are perfect, but look at the B-rhymes; two of them have stressed /-ann/, pronounced [-'ann]; *stergann* 'starlight' would have [-'ann] if stressed, but is here (probably) unstressed, and therefore pronounced [-an]. *glan,* on the other hand, has a single /n/ preceded by a long vowel, i.e. ['aːn].

P.D. Does that mean that *glan* is an imperfect rhyme ?

K.G. Yes. I always remember Wella Brown telling me that ***tan*** 'fire' and ***mann*** 'nothing', which I had rhymed in a poem, were not perfect rhymes.

P.D. But apparently this did not matter in Middle Cornish verse.

K.G. No; imperfect rhymes are so common (apart from in really top-notch poetry like this opening speech of God the Father) that they must have formed part of the system.

P.D. In what way do the rules of versification which you mentioned accommodate these imperfect rhymes ?

K.G. Because both perfect and imperfect rhymes were acceptable, we can envisage the concept of a **rhyming ensemble**, or "rhymeme", which includes one or more "allorhymes". I shall use curly brackets {} to denote rhyming ensembles. [2]

P.D. How does that work in the example we have just looked at ?

K.G. We can define a rhyming ensemble {an} which encompasses the three forms ['ann], ['aːn] and [an].

P.D. Although, like you, I write poems in Cornish, this is all very new to me. Can you give me some more examples ?

K.G. It is new. It is something which I would like to explore in more detail sometime. As for another example, we can identify a rhyming ensemble {ɪ} which includes not only [iː] as in ***ki*** 'dog' and [i] as in ***pysi*** 'to pray', but also [ɪ] in the enclitics ***vy*** 'I' and ***jy*** 'thou', and [ɔɪ] in loan-words such as ***joy***.

P.D. This is most ingenious ! I see that in one go you have explained evidence of rhymes cited in *CT §§3.5* and added weight to the refutation of criticisms C4 and C14. Another example, please !

K.G. Let me see .... yes, the rhyming ensemble which I shall denote by {ɪs}, included the following:

(a) stressed syllables in [-'ɪs], e.g. ***keffrys*** 'also';
(b) unstressed syllables in [-ɪs], e.g. ***gwelys*** 'seen'
(c) unstressed syllables in [-ɪs] from original /-is/, e.g. ***gwelis*** 'I saw'
(d) stressed syllables in [-'is], e.g. ***dhis*** 'to thee'.
Here (a), (b) and (c) are perfect rhymes, [3] but (d) is imperfect; it was just that there are so few stressed monosyllables ending in [-'is] that the few which do exists were lumped together with the rest of the ensemble.

P.D. Could you now give an example of a poor rhyme ?

K.G. There are relatively few in *OM*. Here is one in which the word ***hunros*** 'dream', ending in [-ɔs], is forced to rhyme with Latin *dominus* 'master':

OM 1953	*benedicite dominus*	A	[-ys]
OM 1954	*my re weles ym hunrvs*	A	[-ɔs]

Notice how the word *hunrvs* has been mis-spelled in order to make an eye-rhyme.

P.D. That is an apparent rhyme in which the two supposedly rhyming words are spelled similarly.

K.G. Exactly.

P.D. But here they are spelled differently: one with <u> and the other with <v>.

K.G. That doesn't count; <u> and <v> were effectively the same letter. I think that we are now in a position for me to formulate the rules of versification. The first one is:
If two words are rhymed, it does not necessarily mean that the sounds in their final syllables are identical; unless the rhyme is poor, it means solely that they are sufficiently close as to form part of the same rhyming ensemble.

P.D. That seems to sum up your previous ideas succintly.

K.G. The second rule, which is a corollary of the first, is much more powerful:
If two words in a stanza are contrasted in rhyme, it means that the sounds in their final syllables are not the same.

P.D. What do you mean by "contrasted in rhyme" ?

K.G. In a rhyme-scheme such as ABAB, A and B are contrasted in rhyme; A represents a different rhyming ensemble and a different set of sounds from B.

P.D. Why is this rule much more powerful than the first ?

K.G. Because it enables us to ascertain whether two sounds had fallen together or not.

P.D. How ? Can you give me an example ?

K.G. We have been examining the question of unstressed vowels. Dr Williams makes out that they were all reduced to schwa. If this were so, then it would be impossible to set up contrasting rhymes containing different unstressed vowels. Yet we find plenty of examples in the texts.

P.D. Such as ?

K.G. A stanza which serves to distinguish the rhyming ensembles {ɛs} and {ɪs} is: [4]

OM 1065	*mergh guarthek mogh ha deves*	A	[ɛs]
OM 1066	*dreugh abervet desempys*	B	[ɪs] < [is]
OM 1067	*sav an ethyn byneges*	A	[ɛs]
OM 1068	*y a nyg quyc hag vskys*	B	[ɪs] < [is]
OM 1069	*a das del on the wythres*	A	[ɛs]
OM 1070	*a bol hag a lyys formys*	B	[ɪs]
OM 1071	*byth dyn~ny nerth ha gveres*	A	[ɛs]
OM 1072	*rag warnas prest ny a bys*	B	['ɪːs]

Here all of the rhyming syllables except *bys* are unstressed. The importance of this is that you cannot argue that the spelling of these rhyming words was just an echo of some vague epoch before the prosodic shift. The poets knew and perceived that the sound [-ɪs] was different from [-ɛs], and used this difference in their composition.

P.D. What about *byneges* 'blessed' in *OM.1067* ? Dr Williams uses this word in *CT §7.8* as evidence that the past participle *-ys* "must have been pronounced with a final /əz/".

K.G. There is no "must" about it. The final syllable in *byneges* (as in its antonym *myleges)* was perceived as {ɛs} and pronounced with [ɛ]; this may have arisen by some kind of metathesis.

P.D. So we may take it that in closed syllables, /ɪ/ was distinguished from /ɛ/. What about the distinction between /ɛ/ and /a/ ?

K.G. That is shown by the following stanza, also from *Origo Mundi:*

OM 2647	*na ny leuer bos dev ken*	A	['ɛːn]
OM 2648	*sav an tas a nef a van*	B	['ann]
OM 2649	*ha ty voren myrgh hy ben*	A	['ɛːn]
OM 2650	*a wra dev thys the honan*	B	[an]
OM 2651	*crog rom bo er an thewen*	A	[ɛn]
OM 2652	*neffre marseth ahanan*	B	[an]
OM 2653	*er nan prenny yn felen*	A	[ɛn]
OM 2654	*ha nagha ol the gous gulan*	B	['aːn]

P.D. This seems very clear.

K.G. Now the following stanza is of particular interest, because it contrasts all three rhyming ensembles {-as}, {-ɛs} and {-ɪs}. This contrast indicates that the unstressed vowels were distinct, and had not been reduced to schwa.

PC 2253	*rum fey pilat re sorras*	A	{-as}
PC 2254	*me ath pys awos satnas*	A	{-as}
PC 2255	*doro an laddron yn mes*	B	{-ɛs}
PC 2256	*me a leuer an guyr thys*	C	{-ɪs}
PC 2257	*the pe yma ow wagys*	C	{-ɪs}
PC 2258	*ny fynnaf tryge genes*	B	{-ɛs}

P.D. Did these differences persist into Late Cornish ?

K.G. In general, no, because the sound-changes which we discussed in our last talk {Section 14} came into play, and changed the composition of the rhyming ensembles. Consider this stanza from *BM.*

BM 700	*Ihesu arluth neff han beys*	A	{ɪs}
BM 701	*yehes dywy re grontya*	B	{a} < {ɔ}
BM 702	*ihesu arluth me ath peys*	A	{ɪs}
BM 703	*lemmen sav an keth tusma*	B	{a}
BM 704	*maria mam luen a rays*	C	{as}
BM 705	*peys theth vap arluth ragtha*	B	{a} < {ɛ}
BM 706	*maria mam ha guerhays*	C	{as} < {ɛs}
BM 707	*gueres ov pesy gena*	B	{a} < {ɛ}
BM 708	*sevugh inban a tus vays*	C	{as}
BM 709	*fetel omglowugh omma*	B	{a}

The {a} rhyming ensemble used in the B-rhymes has been greatly enlarged by the inclusion of words which had previously included /-ɔ/ (e.g. *grontya,* for earlier *wrontyo* 'may grant') and /ɛ/ (e.g. *ragtha,* for earlier *ragthe* 'for them'). Similarly, because of the change /ɛ/ > /a/ in closed syllables, it has now become possible in the C-rhymes to rhyme *guerhays* (for earlier *guerhes* 'virgin') with *vays* 'good'.

P.D. This is very interesting. In effect, the number of different rhyming ensembles has decreased, but the number of rhyming words in some of them has increased.

K.G. That is so. Whereas in the Ordinalia, it was possible to contrast unstressed [ɪs], [ɛs] and [as], in *CW.* the contrasts had been reduced, on the whole, to [ɪs] versus [as].

P.D. Can you give me an example ?

K.G. Working out rhyme schemes in *CW.* is more difficult than in the other plays, because the versification is less strict. The following is an example of a contrast between [ɪs] and [as] < [ɛs]:

CW	741	*des nes gas ve the wellas*	A	{as}
CW	742	*mara sewa avall da*	B	{a}
CW	743	*lavar pe veva kefys*	C	{ɪs}
CW	744	*praga adam ow fryas*	A	{as}
CW	745	*der dowte es thyes y&f wellas*	A	{as}
CW	746	*lavar 3ymmo me ath pyes*	C	{ɪs}

This shows that there was still a contrast between unstressed /ɪ/ and /a/ in closed syllables in the early seventeenth century. [5]

P.D. So much for Dr Williams sweeping assertion that all unstressed vowels were schwa !

K.G. Quite ! But I haven't finished yet. In *CT §7.3,* Dr Williams gives the impression that the appearance of a reversed spelling shows that a sound-change had taken place.

P.D. Isn't that the case ?

K.G. Not necessarily. Reversed spellings are a sign that a sound-change is in progress, not that it is complete. In order to understand rhymes in Middle Cornish, it is essential to realize that some sound-changes took a long time to complete. **The older and the newer sounds co-existed for several generations** before the former fell into disuse and the latter prevailed.

P.D. How do we know that ?

K.G. Because in all of the plays, some rhyme-schemes show the older sounds in use while other rhyme-schemes show the newer sounds in use. I shall call this the **principle of duality**.

P.D. Please give me an example.

K.G. The loss of [-v] in unstressed syllables is a good one. In Middle Cornish, rhymes show that historical /-v/ in unstressed syllables was sometimes pronounced (as in *enef* 'soul') and at other times it was not (as in *ene)*. Rhymes using both alternatives exist in all the major texts *(MC., OM., PC., RD., TH.* and *CW.)*

P.D. Was the newer form, without /-v/, socially less acceptable ?

K.G. I think not, for in *OM.,* God the Father, who "invariably speaks good Cornish", "drops the [v]" when creating on the second day, and retains it on the third day:

OM	17	*yn secund dyth y fynna*	/a/ < /av/
OM	18	*gruthyl ebron nef hynwys*	
OM	19	*rag ythevel thym bos da*	/a/
OM	20	*yn kynsa dyth myns vs gvrys*	

OM 25	*yn tresse dyth dybarth gvraf*		/av/
OM 26	*yntre an mor han tyryow*		
OM 27	*hag yn tyr gorhenmennaf*		/av/
OM 28	*may tefo gveyth ha losow*		

Note how the choice of whether or not to retain [-v] is here dictated by the stressed monosyllables which control the rhyme: *da* and *gvraf.* It is even possible for old and new forms to co-exist in the same stanza, as in:

BM 1890	*A serys clowugh ov leff*	A	/ɛv/	
BM 1891	*dovtyogh drok thagis eneff*	A	/ɛv/	
BM 1892	*pan dremennogh an bysme*	B	/a/	[a]
BM 1893	*agys sperys sur an pren*	C		
BM 1894	*in anken ha mur a peyn*	C		
BM 1895	*a thu go ef an ene*	B	/a/ < /ɛv/	

Here the word for 'soul' appears as *eneff,* with [-v], rhyming with *leff;* and as *ene,* without [-v], rhyming with *bysme.*

P.D. I presume that *bysme* is a reversed spelling.

K.G. Yes; it should be spelled *bysma,* because the particle *ma* 'this' (really *mma)* comes from *omma,* which contains /-a/. Now Dr Williams would argue that such spellings indicate that /-ɛ/ had fallen together completely with /-a/: he writes "The confuison *[sic]* in the text *[BM.]* is ..... total" *(CT §7.6)*. I do not believe this to be true, however.

P.D. Why not ?

K.G. Because the principle of duality applied to unstressed vowels in *BM.* Although stanzas such as *BM..700-709,* which I quoted to you, show the newer sounds in use (or "total confusion", in Dr Williams' terms), others may be found in which the contrast /☜/ versus /a/ is still operative.

P.D. Even in unstressed syllables ?

K.G. Even in unstressed syllables. Look at this:

BM 2950	*The vollys dufe the dre*	A	{e}
BM 2951	*in venetenes the sacre*	A	{e}
BM 2952	*epscop gallus thyn yma*	B	{a}
BM 2953	*henna yv both oll an pov*	C	{ɔw}
BM 2954	*ty a yl in the dethyov*	C	{ɔw}
BM 2955	*purguir boys sensis detha*	B	{a} < {ɔ}

The verbal noun *sacre* must have been pronounced with its old sound /ɛ/ in order to rhyme with the stressed word *dre.*

P.D. It seems strange that a rhyming word could be used with two alternative sounds in the same play.

K.G. Not altogether; it happens sometimes in English. Consider this little ditty:

Eulogy to *Cornish Today*

What a volume ! What a brain !	A	['ə✋n]
Dr Williams writes again;	A	['ə✋n]
Master of the Celtic pen,	B	['ɛn]
Dr Williams writes again.	B	['ɛn]

P.D. It's not going to win a prize.

K.G. No, but it does contain the rhyming word *again* with two current but different pronunciations.

P.D. Can we now sum up what we have found concerning unstressed vowels ?

K.G. Yes; although there was a tendency for unstressed vowels to be pronounced as schwa, it was not nearly so marked as Dr Williams makes out. His claim that unstressed /ɛ/, /a/ and /o/ "had probably been reduced to schwa by the fourteenth century if not before" *(CT§7.6)* is, to say the least, premature. Rhymes showing contrasts between these vowels continued to be composed into the sixteenth century. The whole process of reduction to schwa was very slow, and was not complete even in Late Cornish.

P.D. So there is no reason why quality in unstressed vowels should not be distinguished in ***Kernewek Kemmyn*** ?

K.G. There is every reason why it should.

P.D. Good. Let us proceed.

[1] B-rhymes are now thought to be [-ɪz] and [-'ɪːz].

[2] Rhyming ensembles are now denoted by $\mathscr{R}$.

[3] They are not perfect rhymes, because (a), (b), (d) have /-z/ and (c) has /-s/.

[4] All of these rhyming words except ***uskis*** are now thought to end in [-z].

[5] *CW* is now thought to have been composed *c.* 1555.

This chapter was the first presentation of the theory behind rhymes in Middle Cornish, later expanded and refined.

16 Middle Cornish *gwyth* and *gwethen*

P.D. The impression given in *Cornish Today* is that an alternation between *y* and *e* in certain words is one of the strongest pieces of evidence in support of an early date for the prosodic shift. Is this the case ?

K.G. At first sight, this seems to be the case.

P.D. Please explain what the alternation is.

K.G. It concerns historical /i/ and /ɪ/ when stressed before single consonants. There was a tendency to spell both of these vowels as <y> in monosyllables, and as <e> in polysyllables. Dr Williams calls this the *y ~ e* alternation.

P.D. Was the *y~e* alternation real ?

K.G. In the examples given by Dr Williams (viz. *byth* v. *beth-* in *CT §5.2* and *gwyth* 'trees' *v. gwethen* 'tree' in *CT §5.3)* yes, definitely.

P.D. How can you be so sure ?

K.G. I have applied tests similar to those I used for ***tros*** and ***troes*** words {Section 5}, and the differences between the spelling of the monosyllables and the polysyllables are statistically significant.

P.D. Doesn't this mean that Dr Williams is likely to be right in this matter ?

K.G. No, because although the alternation appears real enough, the remainder of the chain of argument is faulty.

P.D. What is his chain of argument ?

K.G. It is really a circular argument rather than a chain.

(a) If (and it's a big if) the prosodic shift took place at the time and in the manner suggested by Dr Williams, then the vowels in polysyllables would have been reduced from mid-length to short.

(b) "Short vowels are usually less tense than their half-long and long counterparts" *(CT §2.6).* Thus the short vowels in polysyllables would be more open ("less tense") than the corresponding long vowels in monosyllables.

(c) The fact that stressed /i/ and /ɪ/ in polysyllables were often written <e> and the corresponding vowels in monosyllables were often written <y> suggests that the former were more open than the latter; this confirms the operation of the prosodic shift.

P.D. Apart from this being a circular argument, is he right about the sounds ?

K.G. No, because his interpretation of what <y> and <e> mean is incorrect. I think, however, that we need to treat the cases of /i/ and /ɪ/ separately. Let us take /ɪ/ first, because it's easier. We need to look at words containing /ɪ/ as a stressed syllable, like ***gwydh*** 'trees' and ***gwydhenn*** 'tree'.

P.D. In criticism C10, Dr Williams claims that:

C10) Kernewek Kemmyn is ignorant of the vocalic alternation *y* ~ *e* and as a result posits such non-existent forms as ***gwydhenn*** 'tree', ***hwytha*** 'to blow', ***ynys*** 'island'.

What have you to say to that ?

K.G. Look up the word for 'tree' in the "short dictionary of UCR" in *CT §24.1.*

P.D. In the third column of page 257 I find "**gwedhen, gwedh**: tree". Interesting !

K.G. Isn't it ? Evidently UCR is ignorant of the vocalic alternation *y* ~ *e.*

P.D. Looks like the pot calling the kettle black. But if the alternation is so important, why doesn't it appear in UCR ?

K.G. Defects in UCR are legion. It's a little unfair of me to answer the criticism by drawing attention to one of them. The answer to your question is implicit in the sentence "<y> - <e> /ɪː/ - /e/ gives way to <e> - <e> /eː/ - /e/, even though the Middle Cornish scribes because of their conservatism continued to write <y> for /eː/" *(CT §5.4).*

P.D. That sentence is going to take a lot of study before I fully comprehend it.

K.G. It's a matter of presentation. You might prefer Fig. 16.1, in which I've laid out the alleged sound-changes and their effects on four type-words. The point is that Dr Williams believes that the *y* ~ *e* alternation was ephemeral, and that it disappeared when /ɪː/ > /ɛː/.

P.D. Thank you; that's a lot clearer, but it would help even more if the dates of the changes were given.

K.G. You're right, of course. Dates are lacking in much of Dr Williams' discussions. The only indication here is in *CT §3.4,* that: "... the transition /ɪː > eː/ was probably accomplished soon after the prosodic shift".

P.D. But the example of *y* ~ *e* alternation in *CT §5.4, dyth* and *dethyow,* is taken from *CW.* ! This doesn't fit his time-scale at all !

K.G. It doesn't fit because his ideas on this topic, like so many others we have seen, are incorrect. I have taken the trouble to lay out Fig. 16.1, but in a way it's a waste of time, because its contents are almost totally wrong. The first two sound-changes therein are figments of Dr Williams' imagination. The *y* ~ *e* alternation has a completely different explanation.

P.D. What is it ?

K.G. I'll come to it after we have discussed the second case, that of words containing /i/ as a stressed syllable, like ***mir*** 'look !' and ***mires*** 'to look'. Dr Williams' ideas on these are also shown in Fig. 16.1.

Developments of long and mid-length /i/ and /ʉ/ *Fig. 16.1*

(a) according to Dr Williams

PHONEME -->	/i/	/i/	/ɪ/	/ɪ/
SYLLABLES -->	mono.	poly.	mono.	poly.
TYPE-WORD -->	***mir***	***mires***	***gwydh***	***gwydhenn***
ENGLISH -->	'look !'	'to look'	'trees'	'tree'
	['miːr]	['miˑrɛs]	['gwɪːð]	['gwɪˑðɛn]
PROSODIC SHIFT c.1250 shortening & lowering	no	**yes**	no	**yes**
	['miːr]	['mɪrɛs]	['gwɪːð]	['gwɪðɛn]
Middle Cornish	*myr*	*myres*	*gwyth*	**gwythen*
lowering of short vowels	no	**yes**	no	**yes**
	['miːr]	['merɛs]	['gwɪːð]	['gweðɛn]
Middle Cornish	*myr*	*meres*	*gwyth*	*gwethen*
lowering of /ɪː/	no	no	**yes**	no
	['miːr]	['merəs]	['gweːð]	['gweðən]
Middle Cornish	*myr*	*meras*	*gweth*	*gwethen*

P.D. In the case of /i/, criticism C8 states that:

C8) Kernewek Kemmyn distinguishes /i/ and /ɪ/, though the two had fallen together as /ɪ/ in Middle Cornish and /ɪ/ alternated with /e/. Kernewek Kemmyn therefore spells 'look', for example, as <mires> with /i/ although it is most frequently *meras* in the texts.

What have you to say about the five polysyllables, listed in *CT §4.2,* in which historical /i/ was often spelled <e> ?

K.G. I have drawn up a table {Fig. 16.2} which shows that in Middle Cornish, the stressed vowel was sometimes spelled <i ~ y> and sometimes <e>.

P.D. Why have you spelled the word for 'to dwell' as ***triga,*** whereas in *GLKK,* it is written as ***tryga*** ?

K.G. I must admit that in the case of this word, I was put off by the <e>-spellings; in *GLKK* I wrote*:* "One would expect /trig/, but the word and its compounds behaved as if they contained /ɪ/ and not /i/." It is now clear to me that this was a mistake; the word should be spelled ***triga*** in ***Kernewek Kemmyn****,* because, like the four others in Fig. 16.2, it contained /i/ in Middle Cornish. The same applies to the word for 'prison'; despite the spelling *preson* in *MC.* and *BM.,* the word should really be spelled ***prison***.

Words containing stressed /i/ in polysyllables *Fig. 16.2*

	mires 'look'	***triga*** 'dwell'	***skrifa*** 'write'	***kila*** 'mate'	***hwiles*** 'seek'
Numbers of cases in Middle Cornish					
<i> and <y>	25	15	63	5	27
<e>	24	22	14	19	37
Examples suggesting [iː] in Late Cornish					
Lhuyd	*mîras*	-----	*skrîfa*	-----	-----
Elsewhere	*meero*	*Trîgas*	*skreefa*	-----	*wheelaz*

P.D. I can see that it is off-putting to find <e> used for a vowel which you maintain was [iˑ] in Middle Cornish. This appears to be a strong point in Dr Williams' favour; in *CT §4.2* he writes: "The common spellings like *trega, screfa, whela, merough,* etc., are by themselves sufficient evidence that Middle Cornish had only long and short-vowels and that the three-fold distinction of long, half-long and short had disappeared from the language." Now what makes you so sure that <e> represented [iˑ], rather than the more obvious [e], as claimed by Dr Williams ?

K.G. If we look at the forms of these words in Late Cornish {Fig. 16.3}, we see that they are spelled with <ee> or <î>, both of which mean [i▫]. We have already noted other examples in Fig. 4.6. This indicates that the mid-length [iˑ] was maintained throughout Middle Cornish until the early seventeenth century, when it became lengthened to [iː].

P.D. How does Dr Williams explain this evidence from Late Cornish ?

K.G. I don't think he does. How can he ? Having stated that the [iˑ] in words like ***mires*** 'to look' has been shortened and lowered to [e] in Middle Cornish, there is no way in which it is going to be lengthened and tensed to [iː] in Late Cornish. The whole idea is crazy. He must be wrong.

P.D. I am sorry to press this point, but it still seems odd that <e> was sometimes used as a grapheme to represent it, when <y> or <i> would appear more suitable.

K.G. It does seem odd. But "when you have eliminated the impossible, whatever remains, *however improbable,* must be the truth."

P.D. Hmm ... Holmes, S., as opposed to Holmes, J.

K.G. Excellent ! Or do I mean elementary ? But Julyan came to the same conclusion as I, independently (Holmes, 1996). You could also ask Celia and Enid.

P.D. Who on Earth are they ?

K.G. Two ladies whose names illustrate the point.

P.D. What point ?

K.G. [iˑ] being represented by <e>; think about it; it's my little joke.

P.D. Oh yes, I see what you mean; very droll, I must say. It seems to me, though, that your argument is partly a forced one. Can you throw any more light on the problem ?

K.G. In focussing on the *y ~ e* alternation, Dr Williams is selecting a feature which appears to support his hypothesis. We need to take a wider view than this. In *CT §2.4,* he claims that, after the prosodic shift, "... originally half-long vowels were now short and indistinguishable therefore from vowels that had always been short". This is a statement that we can check.

P.D. How can we check it ?

Orthographic profile of stressed /ɪ/ when short in polysyllables *Fig. 16.3*

Text-->	CE.	MC.	OM.	PC.	RD.	BM.	TH.	SA.	CW.
bys ma 'this world'									
<y>	0	5	11	19	12	43	1	0	24
<e>	0	0	0	0	0	0	0	0	0
<ey>	0	0	0	0	0	1	0	0	1
dhymmo 'to me'									
<y>	0	7	35	.37.	47	69	2	0	50
<e>	0	0	0	0	0	0	0	0	2
gyll- 'to be able'									
<y>	0	24	13	18	17	33	26	0	3
<e>	0	1	0	2	1	2	0	0	1
mynn- 'to wish'									
<y>	0	60	46	28	36	38	35	0	19
<e>	2	4	7	12	3	16	6	1	4
<a>	0	1	0	1	0	30	3	0	20

K.G. By comparing the orthographic profiles of /ɪ/ in words like ***pysi,*** which allegedly had become short, with those of /ɪ/ in words like ***mynnes,*** which had always been short. If Dr Williams were correct, then we might expect no difference between the profiles.

P.D. What governed your choice of words in Fig. 16.3 ?

K.G. The auxiliary verbs ***mynnes*** 'to wish' and ***galloes*** 'to be able' are an obvious choice, since their stems ***(mynn-*** and ***gyll-*** respectively) contain a short /ɪ/ before a geminate consonant, and there are plenty of examples.

P.D. I see that in the case of ***mynn-,*** the stressed vowel was sometimes written <a>.

K.G. All such examples refer to *mannaf(f)* 'I wish', a form which Dr Williams makes great play of. This looks to me simply like vowel harmony.

P.D. You mean that the vowel in the stem was influenced by the [a] in the ending *-af,* and changed to rhyme with it ?

K.G. Yes; a similar explanation may apply to the examples of <e> which refer to *mensen* 'I would'.

P.D. What about *bys ma* ?

K.G. This was always written as one word in Middle Cornish, and evidently treated as such. Like ***bys*** itself, it was never written with <e>.

P.D. That's an interesting point; when Dr Williams is claiming that <e> is a marker of an allegedly shortened /ɪ/, in words like ***pysi,*** here we have a genuinely short /ɪ/ with no trace of <e>.

K.G. The reason is, of course, that /ɪ/ in words like ***pysi*** was not short, but of mid-length. The profile of such words is shown in Fig. 16.4.

P.D. Is there a difference between the two sets of profiles ?

K.G. Yes; both [ɪˑ] and [ɪ] were represented by a mixture of <y>-spellings and <e>-spellings: but, with the exception of *RD.,* there is a clear tendency for <e> to be commoner for [ɪˑ], and <y> to be commoner for [ɪ].

P.D. So Dr Williams is wrong again.

K.G. It would appear so.

P.D. I can go along with the idea that [ɪˑ], being a sound between [iˑ] and [ɛː], was represented by a mixture of <y> and <e>: but you are here suggesting that [iˑ] was represented by the same mixture. Now, if both /i/ and /ɪ/ were represented by the same mixture of graphemes, does this not show that they had merged ?

K.G. No; we have already seen, in the case of ***tros*** and ***troes*** words {Section 5}, that the fact that two different sounds were represented by the same mixture of graphemes does not necessarily mean that they had fallen together. The proportion of <y>-spellings for [ɪˑ] is less than that for [iˑ] {Fig. 16.5}.

Orthographic profile of /ɪ/ when of mid-length *Fig. 16.4*

Text-->	MC.	OM.	PC.	RD.	BM.	TH.	SA.	CW.
bydh- 'to be'								
<y>	0	2	6	3	0	0	0	0
<e>	5	17	6	2	23	10	2	12
gwydhenn 'tree'								
<y>	0	0	0	0	0	0	0	1
<e>	0	16	0	0	0	0	0	22
krys- 'to believe'								
<y>	0	2	6	29	0	5	0	0
<e>	1	12	2	8	15	21	2	7
lyver 'book'								
<y>	0	0	0	0	1	8	1	0
<e>	0	0	1	0	2	12	4	0
pys- 'to pray'								
<y>	0	10	15	12	0	0	0	0
<e>	16	4	2	2	45	5	1	1

Spellings of front vowels in Middle Cornish ? *Fig. 16.5*

GRAPHEME --> / VOWEL	<y>	<e>	<ey>
[iː]	common	rare	rare
[iˑ]	common	common	rare
[ɪː]	common	rare	common
[ɪˑ]	less common	common	rare
[ɪ]	common	less common	rare
[ɛː]	rare	common	rare

P.D. Then I must put to you Dr Williams' statement in *CT §13.30:* "Even a cursory glance at the texts would have shown that stressed /i/ in open syllables had become /ɪ/ or /e/".

K.G. I think that he must mean closed syllables, rather than open. I am not in the habit of giving making cursory glances at the texts. I prefer to examine them more thoroughly. A glance might reveal that stressed /i/ in closed syllables was represented by a mixture of <y> and <e>, but <y> and <e> do not automatically mean /ɪ/ and /e/, as Dr Williams assumes.

P.D. What, then, do these spellings mean ?

K.G. The choice of <y> or <e> seems to be partly dependent on texts; Fig. 16.4 shows that the authors of *PC.* and *RD.* tended to favour <y>, while those of *MC., OM., BM.* and *TH.* preferred <e>. My opinion, however, is that they refer to the same sounds, [iˑ] and [ɪˑ]; it is just that those authors who used <y> preferred to emphasize the quality of the vowels, and the others wished to indicate their quantity. I must also make the point that, when examined carefully, the so-called *y* ~ *e* alternation is not really between *y* in monosyllables and *e* in polysyllables; it is between *y* in monosyllables and *y* and *e* in polysyllables.

P.D. What is the significance of that ?

K.G. It shows that in Middle Cornish, [iˑ] and [ɪˑ] (spelled <y> and <e>) had not merged with [ɛˑ] (spelled <e>).

Developments of long and mid-length /i/ and /ɪ/ *Fig. 16.6*

(b) according to Dr George

PHONEME -->	/i/	/i/	/ɪ/	/ɪ/
SYLLABLES -->	mono.	poly.	mono.	poly.
TYPE-WORD -->	***mir***	***mires***	***gwydh***	***gwydhenn***
ENGLISH -->	‘look !’	‘to look’	‘trees’	‘tree’
	['miːr]	['miˑrɛs]	['gwɪːð]	['gwɪˑðɛn]
Middle Cornish	*myr*	{ *myres* { *meres*	{ *gwyth*	{ **gwythen* { *gwethen*
PROSODIC SHIFT c.1625 lengthening or shortening	no	**yes**	no	**yes**
lowering of /ɪ/ c.1625	no	no	**yes**	**yes**
	['miːr]	['miˑras]	['gweːð]	['gweðan]
Late Cornish	*mîr*	*mîras*	*gweth*	*gwethan*

P.D. Could you now give me your views on the developments of the words in Fig. 16.1 ?

K.G. I have laid out the developments in Fig. 16.6. Note that they occurred in Late Cornish, not Middle Cornish.

P.D. Again, this is much simpler than Dr Williams' picture. What are the implications for ***Kernewek Kemmyn*** ?

K.G. Not a lot. There is no question of including the alternation in the orthography. A few words like ***tryga*** and ***pryson*** would be better spelled using <i>. As Dr Williams points out in *CT §13.26,* we shall also have to think about how to treat the words ***eva*** 'to drink', ***ledan*** 'wide', ***tevi*** 'to grow' and the imperative tense of ***bos*** 'to be'.

P.D. What is the problem ?

K.G. Etymologically the stressed vowel in these words was /ɪ/, but they were spelled almost exclusively with <e>. In the absence of spellings in <y>, we cannot be sure whether the <e> represents the quantity of the vowel, i.e. [ɪˑ], or the quality, i.e. [ɛˑ], changed early from [ɪˑ].

P.D. Like ***krev*** in the case of stressed monosyllables ?

K.G. Yes, exactly. Consistency is a problem, but there's a lot to be said for treating these words as having suffered an early change [ɪˑ] > [ɛˑ], and leaving their spelling alone.

P.D. Let's leave the whole question alone, and start to look at diphthongs.

In 1997, the only explanation available for vocalic alternation of *y* ~ *e* was Williams' early prosodic shift. It was clear that the prosodic shift occurred much later than Williams' 13th century, so vocalic alternation had to have another explanation. The one put forward was that <e> actually meant /i/ or /ɪ/. While this is likely in words containing hiatus, such as ***lies*** 'many', spelled *leas* in *MC*., it may not be so in other words. Part of the problem was that it was thought that the sound-change /ɪ/ > /ɛ/ occurred at a specific epoch; *c*.1625 was suggested in Fig. 16.6. Later it became evident that the sound-change occurred at different times in different words (George 2018), in the words ***eva***, ***ledan*** and ***tevi*** it occurred early, allowing the KK spelling to remain. The word for island is spelled ***ynys*** in GM20, but here again the sound-change was early, and the KK spelling needs to be changed to ***enys***.

The sound-change also tended to occur earlier in unstressed vowels than in stressed ones. This explains the vocalic alternation in *OM.* between *gveyth* 'trees' ['gwɪːð] and *gvethen* 'individual tree' ['gweˑðɛn]. There is no need to invoke a prosodic shift; the alternation comes about because of the nature of the sound-change.

17 ***lu, liw, lyw* and *lew***

P.D. I would next like to deal with criticism C7, which is:

C7) Kernewek Kemmyn is unaware that final /yː/ had become /ɪw/ in Middle Cornish and that final /uː/ had become /ew/.

K.G. We can dismiss the second part of this right away, because it applies to the one word *plu* 'parish'.

P.D. The one that Dr Williams changed his mind about ?

K.G. Yes, he had two goes at it *(CT §3.9* and *Pre-occlusion §1.2)* before arriving at a acceptable solution. The second part of C7 refers to his first solution, which he later withdrew.

P.D. What about the first part ? Please define /yː/ and /ɪw/.

K.G. By /yː/ is meant the original vowel in words like ***du*** 'black' and ***tu*** 'direction'. This is believed to be a high rounded front vowel, like *u* in the French word *tu* 'thou'. I have set out the orthographic profile of words like ***du*** in Fig. 17.1.

Orthographic profile of /yː/ in final open syllables *Fig. 17.1*

Examples used: ***du*** 'black', ***lu*** 'army', ***tu*** 'direction', ***tru*** 'alas'

Text-->	MC.	OM.	PC.	RD.	BM.	TH.	SA.	CW.
<u,v>	5	10	15	11	4	0	0	0
<w>	0	0	1	0	0	0	0	0
<ew>-type	0	0	1	0	0	0	0	11

P.D. /ɪw/ represents a diphthong, of course.

K.G. Yes, it is one of three diphthongs which should be examined as a group, along with /yː/. In *CT §6.2.,* Dr Williams refers to them as /iw/, /ɪw/ and /ew/; I prefer the labels /iw/, /ɪw/ and /ɛw/.

P.D. I see that criticism C11 is also relevant here:

C11) Kernewek Kemmyn posits three diphthongs /iw/, /ɪw/ and /ew/, when Middle Cornish had two only (or in some cases only one).

K.G. In order to see how these were spelled, I have prepared orthographic profiles for each of these {Figs. 17.2, 17.3a, 17.3b, 17.3c and 17.4}.

P.D. Why have you separated the data for /ɪw/ into three separate tables ?

Orthographic profile of /iw/ in final open syllables *Fig. 17.2*

Examples used: ***diw*** ‘two (f.)’, ***gwiw*** 'fit', ***liw*** 'colour', ***piw*** 'who'

Text-->	MC.	OM.	PC.	RD.	BM.	TH.	SA.	CW.
<u,v>	5	0	2	1	0	0	0	0
<yv>	1	1	17	8	14	0	0	0
<yw>	5	7	7	10	0	0	0	2
<ew>	0	1	0	0	0	8	2	6

Orthographic profile of *yw* 'is' *Fig. 17.3a*

Text-->	MC.	OM.	PC.	RD.	BM.	TH.	SA.	CW.
<yw>	54	31	36	51	2	0	0	27
<yv>	13	94	162	110	298	0	0	0
<ev>	0	17	0	0	0	0	0	0
<ew>-type	9	4	1	0	1	426	122	163
<yu>	0	4	3	3	0	0	0	0

Orthographic profile of *Dyw* 'God' *Fig. 17.3b*

Text-->	MC.	OM.	PC.	RD.	BM.	TH.	SA.	CW.
<yw>	0	0	0	1	0	0	0	0
<yv>	0	0	0	0	0	0	0	0
<ev>	0	130	100	46	0	0	0	0
<ew>-type	0	8	2	1	0	9	46	73
<u, v>	44	0	11	4	118	246	0	0
<uv>	0	0	0	1	0	0	0	0
<ue>	0	0	0	0	0	0	0	1

K.G. Two very common words containing /ɪw/ are ***yw*** **‘**is’ and ***Dyw*** ‘God’; the profiles of these two are so different that they need to be treated separately.

P.D. Why is that ?

K.G. It is evident that convention played a part in the spelling of the word for the Deity.

P.D. Convention ? But when we were talking about orthography in general {Section 2}, you played down the idea of an orthographic tradition in Middle Cornish.

K.G. Tradition and convention are not the same thing. Convention here means that the word for 'God' was spelled fairly consistently within one text. Probably for religious reasons, the scribes felt that the name for 'God' should be spelled consistently. If there were a spelling tradition, the word would be spelled the same in all texts. Fig. 17.3b shows that this was not the case.

Orthographic profile of other words containing /-ɪw/ *Fig. 17.3c*

Examples used: ***byw*** 'alive', ***gyw*** 'spear', ***klyw*** 'hear', ***plyw*** 'parish'

Text-->	MC.	OM.	PC.	RD.	BM.	TH.	SA.	CW.
<yw>	2	0	0	4	0	0	0	0
<yv>	0	1	1	0	5	0	0	0
<ev>	0	2	4	1	3	0	0	0
<ew>-type	2	10	2	14	0	5	1	10
<u, uv>	0	1	2	11	6	0	0	0
<ov, ow>	0	0	0	0	2	2	1	5

P.D. I notice that in Fig. 17.3c you have spelled the word for 'parish' as ***plyw,*** whereas in Middle Cornish, in Nance's dictionaries and in *GLKK* it was spelled *plu.*

K.G. We have Dr Williams to thank for that. He is to be congratulated on sorting out the developments of the words for 'parish' and 'spear'.

Orthographic profile of /ʷw/ in final open syllables *Fig. 17.4*

Examples used: ***blew*** 'hair', ***dew*** 'two (m.)', ***gew*** 'misery', ***glew*** 'intense', ***rew*** 'frost', ***rew*** 'row', ***tew*** 'thick'

Text-->	MC.	OM.	PC.	RD.	BM.	TH.	SA.	CW.
<yw, yv>	0	0	0	0	0	0	0	0
<ev, evw>	0	2	8	3	4	0	0	0
<ew(e)>	2	9	7	6	0	8	0	8
<eaw>	0	0	0	0	0	0	0	4
<eyv>	0	0	0	0	1	0	0	0
<u, v>	0	1	2	0	1	0	0	0

P.D. So you think that he is right in this matter ?

K.G. I think that he is correct in his assignment of these two words to the original /ɪw/ phoneme. As far as criticisms C7 and C11 are concerned, I think that he is wrong.

P.D. What is his evidence in support of C7 ?

K.G. There are two strands of argument:

CT §3.13 "When original /y:/ had diphthongised it rhymed freely with /ɪw/, /ew/"

CT §13.20 "*Dew* 'God' is spelt <du> as early as PA. This can only mean that *du* 'black' and *Dew* 'God' were pronounced identically already in the fifteenth century. ..... *Dew* was pronounced /dɪw/ and written <du>".

P.D. What do you make of the argument invoking rhymes ?

K.G. In a word, weak. In each of the four categories of words (i.e. /y:/, /iw/, /ɪw/ and /ɛw/ finally in stressed syllables), there were fewer than a half a dozen words which could be used. The use of unstressed syllables helped a bit, but in general, the paucity of perfect rhymes forced the composers of the plays to use near-perfect ones instead. We have already seen that the fact that two words were rhymed does not mean that the rhymes were perfect. The subject matter meant that *dew* 'God' and *ihesu* 'Jesu' frequently featured as rhyming words; they were rhymed with each other, but such rhymes were not perfect. Even so, if you analyse the rhymes, you find that whereas /y:/, /iw/, and /ʰw/ were fairly often rhymed, there was more reluctance to rhyme these with /ɛw/.

P.D. Do you agree with the second argument ?

K.G. I take issue with the word "identically". I would prefer to say that the pronunciations of /ɪw/ and /y:/ were so close that scribes were sometimes confused when writing the former.

P.D. But not the latter ?

K.G. No; a curious feature of the confusion is that it is only one way. <u> was sometimes used to denote /ɪw/; I can find only one example of <ew> being used to denote /y:/.

P.D. Which is that ?

K.G. The line *may canaf trew* at *PC..150.* Here ***tru*** 'alas' has been written *trew* in order to make an eye-rhyme with *hythew* 'today' three lines before.

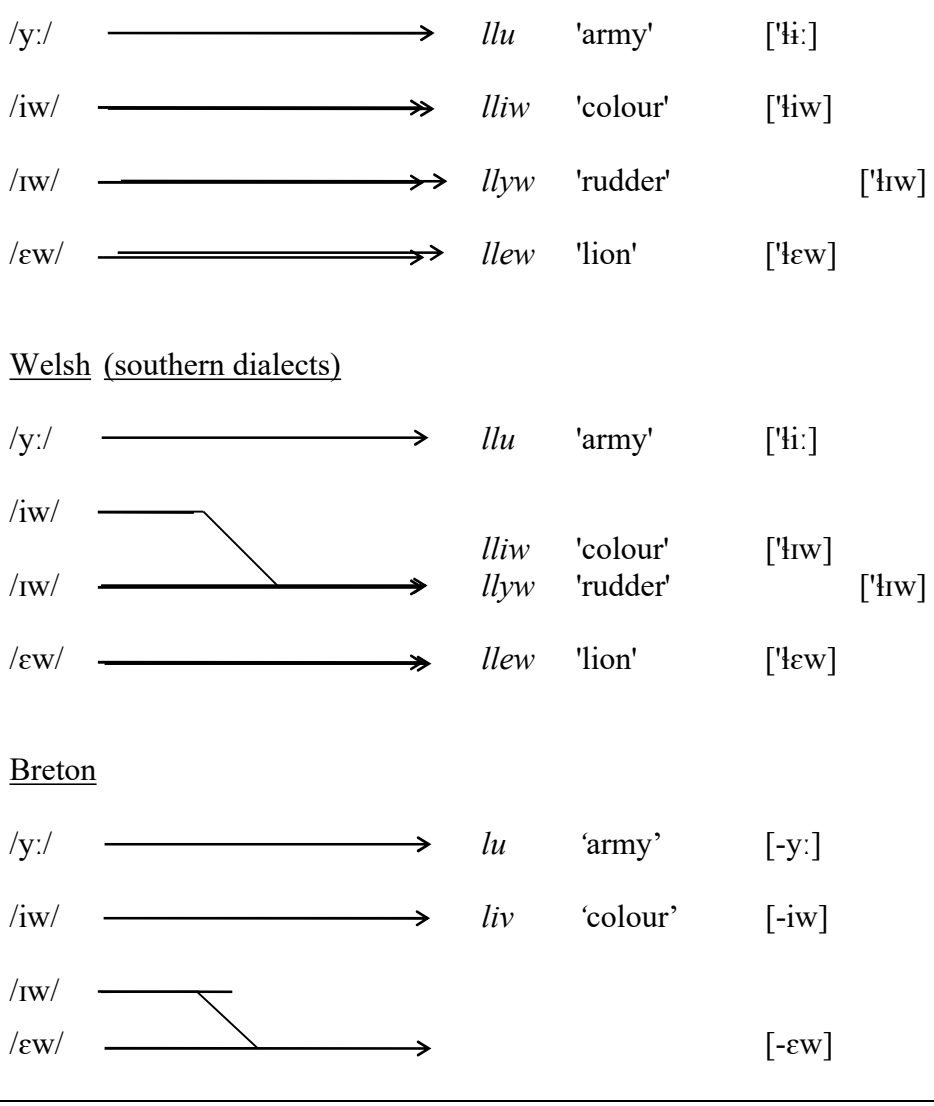
P.D. Might it not have been that /ɪw/ in ***Dyw*** 'God' and in other words became [y:], instead of /y:/ becoming [ɪw] ?

K.G. It is theoretically possible, but phonetically unlikely. Notice also that <u> is used as a grapheme not just for original /ɪ/, but also for /iw/ and /ɛw/.

P.D. ..... which means that we must consider all three of the *w*-diphthongs and /y:/. Please can we widen the picture, and thereby consider criticism C11 ?

K.G. I think that readers will find it helpful to see what happened in Welsh and Breton. This is described in *CT §6.2,* and in Fig. 17.5 I have laid it out diagrammatically, with key words.

The fate of the four phonemes in Welsh and Breton *Fig. 17.5*



P.D. So in the northern dialects of Welsh, all four words remain separate. They must be awfully hard to distinguish.

K.G. Indeed; it's not surprising that there was coalescence in the southern dialects, in which *lliw* and *llyw* are not a minimal pair, but homophones; i.e. they are pronounced identically.

P.D. I see that the four were reduced to three in Breton.

K.G. Yes, but there /yː/ stayed separate, while /ɪw/ and /ɛw/ fell together.

P.D. What happened in Cornish ?

K.G. Dr Williams seems to think that all four phonemes eventually fell together as [ɛw].

P.D. On what do you base this inference ?

K.G. On the following statements:

CT §3.13 "When long in absolute final position /yː/ seems to have fallen together with /ɪw/ from other sources".

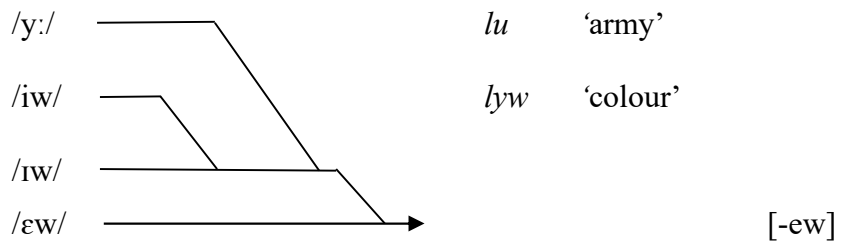
CT §6.2 "In Cornish, the new prosodic system reduced the three diphthongs /iw/, /ɪw/, /ew/ to two, for /iw/ and /ɪw/ fell together as /ɪw/".

CT §6.3 "Already by the time of the *Ordinalia,* however, /ɪw/ and /ew/ are tending to fall together as /ew/ <ew>".

I have drawn a diagram of what I think he means {Fig. 17.6}.

The fate of the four phonemes in Cornish *Fig. 17.6*

(a) according to Dr Williams



P.D. Why does he think that everything collapsed to just one sound ?

K.G. Look again at the orthographic profiles {Figs. 17.1 to 17.4}. The spellings for the earlier texts *(MC,* Ordinalia and *BM.)* are very mixed, but in the later ones *(TH., SA.* and particularly *CW.),* there is a clear tendency for just one spelling type to predominate.

P.D. That is <ew>, if I read the tables correctly.

K.G. You may find Fig. 17.7 somewhat easier to assimilate. In it I have just summarized the principal graphemes used.

Principal spelling-types in stressed open monosyllables *Fig. 17.7*

ORIGINAL PHONEME		MC+	ORD	BSM	TH+	CW+
/y/		<u>	<u>	<u>	no data	<ew>
/iw/		<yw>	<yw>	<yw>	<ew>	<ew>
/ɪw/	***yw***	<yw>	<yv, yw>	<yv>	<ew>	<ew>
	Dyw	<u>	<ev>	<u>	<u,ew>[1]	<ew>
	others	<yw,ew>	<ew,u>	<yv,u>	<ew>	<ew>
/ɛw/		<ew>	<ev, ew>	<ev>	<ew>	<ew, eaw>

1 *du* in *TH., Dew* in *SA.*

P.D. They certainly all end up as <ew>.

K.G. This has evidently misled Dr Williams into saying that all ended up as /ɛw/.

P.D. Well, didn't they ? It seems reasonable enough, at first glance.

K.G. It may be too simplistic. The important point to remember that <ew> in English words like *dew* and *few* does not mean [ɛw]; it means [juˑ].

P.D. I'm sorry, I don't quite follow the significance of that.

K.G. Consider the English word *steward.* This was originally *sty ward,* a guardian of a sty, if you like. The Middle English form contained the diphthong [iw], which later became [juː], but spelled <ew>.

P.D. I'm beginning to see what you're driving at: that <ew> does not necessarily mean [ɛw].

K.G. It probably did at first, in the earlier texts. But as <ew> became increasingly used to denote [ɪw] in English, then it was so used in Cornish, as well. Furthermore, another spelling of the name *Steward* is *Stuart,* with <u>.

P.D. Exactly the same confusion as in the Cornish texts ..... interesting !

K.G. Yes, remember that <u> was used for any and all of the diphthongs /iw/, /ɪw/ and /ɛw/, as well as /yː/. Now, if <ew> could mean [ɪw], then it does not follow that all four sounds had coalesced as [ɛw].

P.D. But if they were all spelled <ew>, how can you prove otherwise ?

Examples from Lhuyd *Fig. 17.6*

ORIGINAL --> PHONEME	/y¤/	/iw/	/ɪw/	/ɛw/
	diu 'black'	*liu* 'colour'	*bêu* 'alive'	*blêu* 'hair'
	tiwa[1] 'direction'	*piu* 'who'	*Deû* 'God'	*lêu* 'lion'
		ziu 'bream'	*plêu* 'parish'	*reu* 'frost'
				têu 'fat'

1 for ***tu ha***

K.G. By looking more closely at how words in all four categories were spelled in Late Cornish. If we examine how Lhuyd wrote such words, {Fig. 17.8}, a different picture emerges from that presented by Dr Williams: those containing original /y:/ and /iw/ end up being spelled <-iu>, and those with original /ɪw/ and /ɛw/ have <-êu>, or similar.

P.D. It is a pity there aren't more examples.

K.G. That *cri de coeur* applies very often in these investigations. A determined effort ought to be made to discover more texts. Nevertheless, we can augment Lhuyd's testimony with evidence from Late Cornish. In Fig. 17.9, we again see a distinct spelling type for words which contained original /ɪw/ and /ɛw/.

<-eaw>-type spellings supporting [-ʷw] in Late Cornish *Fig. 17.9*

beau	'live'	T.Boson: *Apostles' Creed*
Beau	'live'	J.Boson: *Apostles' Creed*
bleaw	'hair'	*CW.1506, 1603*
bleawe	'hair'	*CW.1665*
deau	'two'	J.Boson: *Genesis 1, v.16.*
deaw	'two'	*CW.1054, 1232, 2181;* Rowe: *Matt. 2 v. 16, Matt. 4 vv. 18, 21*
deawe	'God'	T.Boson: *Old Hundredth, vv. 2, 4*
pleaw	'parish'	J.Boson: *John of Chyannor, v. 13.*
Bleau	'parish'	O.Pender: *"Letter about Pilchards"*
reaw	'frost'	*CW.1667*
Reaw'	'do'	J.Boson: *John of Chyannor, v. 11* (2nd. pl. impv. of ***gul)***

P.D. So you reckon that there were two possible outcomes for the four original sounds, as opposed to Dr Williams' one ?

K.G. At least two. The situation in Late Cornish may be summarized in this diagram:

PHONEME USUAL GRAPHEMES

	(Lhuyd)	(Others)
/ɪw/	<iu>	<ew>
/ɛw/	<êu>	<ew, eaw>

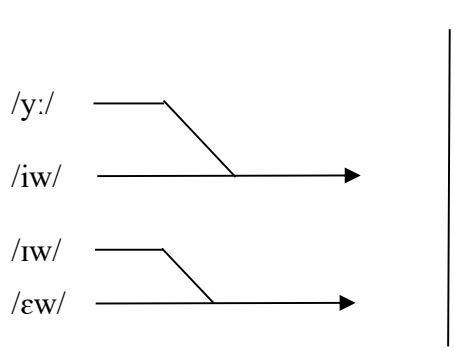
P.D. So how do you see the overall development of the four original phonemes which are the subject of this discussion ?

K.G. I have laid this out in Fig. 17.10, along with the spellings and recommended pronunciations of the key-words in ***Kernewek Kemmyn***..

P.D. I

The fate of the four phonemes in Cornish *Fig. 17.10*

(a) according to Dr George



Kernewek Kemmyn

lu	'army'	['ly:]
liw	'colour'	['liw]
lyw	'rudder'	['lɪw]
lew	'lion'	['lɛw]

see that ***Kernewek Kemmyn*** preserves the distinctions between all four phonemes. Is this justifiable ?

K.G. It is. It is all a question of timing.

P.D. I see what you mean. If the two fusions in the diagram occurred after the date on which ***Kernewek Kemmyn*** is based, then it is justifiable. When did they occur ?

K.G. There is insufficient evidence to be sure. The change /ɪw/ > /ɛw/ is likely to have occurred at the same time as /ɪ/ > /ɛ/, which may have been *c.*1650. In cases of doubt, the preferable option is that which increases the distinctions between words, and thereby reduces the number of homophones.

P.D. Why is that the preferable option ?

K.G. Homophones are a potential source of confusion. But more seriously, if the distinctions between all four phonemes are preserved, then we can be much surer about how to spell the words. All we need to do is to establish in which category a particular word belongs, which can be done with the aid of etymology.

P.D. But how can we be sure that a particular word is not subject to an exceptional development ? I am thinking of the word ***klyw*** 'hear', in view of Dr Williams' comments in *CT §13.28.*

K.G. We'll consider that next. I am confident that in retaining distinctions between all four phonemes, ***Kernewek Kemmyn*** is superior to both UC and UCR.

P.D. In what way ?

K.G. Well, just look at them: *Dew* 'God' and *du* 'black' are spelled differently in UC and UCR, but are supposed to be pronounced the same: we have *deu* (m.) and *dyw* (f.) in UC, spelled and pronounced differently, but just *dew* for 'two' in UCR *(CT §17.9),* pronounced the same as *Dew* !

P.D. Seems a suitable time for a break !

The whole question of the *w*-diphthongs needed revision when c. 2002 Keith Bailey discovered a previously unrecognized one. The word for 'God', which features prominently in the above discussion, is the commonest member of the set of words containing the "new" diphthong. Bailey proposed spelling it ***Duw***, and <uw> became known as the "Baileygraph". Its pronunciation was approximately [øʊ] at first, but in time fell together with /ɛw/.

18 ***klywes*** and ***bywnans***

P.D. Near the end of our last discussion, I mentioned the word ***klyw*** 'hear'. In criticism C12, Dr Williams specifically mentions the associated verbal noun:

C12) Kernewek Kemmyn has ***klyw, klywes*** and ***byw, bywnans*** when Middle Cornish had *clew, clewes/clowes* and *byw/bew, bewnans/bownans.*

How do you react to this ?

K.G. Dr Williams regards this as an error, but it is not.

P.D. He obviously objects strongly to spelling these words with <yw>.

K.G. The spelling <yw> for these words depends upon the following:

(i) the roots ***klyw-*** and ***byw-*** each contain historical /ɪw/;

(ii) <yw> is a reasonable grapheme to denote /ɪw/;

(iii) the diphthong in individual words within each set of words has not changed such as to invalidate the use of /ɪw/.

Provided that these three assertions are correct, then we can be sure about the spelling in ***Kernewek Kemmyn***.

P.D. Can we check them ?

K.G. That (i) is correct may be surmised by examining the corresponding words in Welsh and Breton {Fig. 18.1}.

Correspondences in Brittonic *Fig. 18.1*

ENGLISH	WELSH	BRETON	MIDDLE CORNISH	***KERNEWEK KEMMYN***
'hears'	*clyw*	*klev*	*clew, klew, clev, clow,* etc.	***klyw***
'to hear'	*clywed*	*kleved*[1]	*cleues, clewas, clowas,* etc.	***klywes***
'alive'	*byw*	*bev*	*byv, byw, bev, bew*	***byw***
'to live'	*bywio*[2]	*bevañ*	*bywe, bewe, bewa,* etc.	***bywa***

1 More usually *klevout*

2 More usually just *byw;* Welsh *-io* corresponds to Cornish *-ya* rather than *-a.*

P.D. Perhaps I ought to ask why have you chosen ***bywa*** 'to live' and not ***bywnans*** 'life' in Fig. 18.1 ?

K.G. Because ***bywnans*** appears to be a formation unique to Cornish, consisting of the root ***byw-***, an intrusive [n] and the suffix ***-ans***. The Breton for 'life' is *buhez,* and the Welsh is *bywyd.*

P.D Please go on.

K.G. As we saw in Fig. 17.5, Welsh retained /ɪw/ throughout, whereas in Breton, /ɪw/ fell together with /ɛw/. The modern forms in Fig. 18.1 are compatible with this; in addition, Professor Jackson {1967, §335(2)} stated specifically that in Primitive Breton, the monosyllables had the forms **bɪw* and **clɪw*.

P.D. I know that Primitive Breton is the earliest phase of that language.

K.G. Yes, the phase lasting from *c.*600 to 800 A.D. It was very similar to Primitive Cornish and Primitive Welsh. So far as these two words were concerned, all three were identical. This means that assertion (i) is correct: the diphthongs in the two sets of words have been correctly identified.

P.D. Would Dr Williams disagree with this ?

K.G. I don't think so. Let us turn to assertion (ii).

P.D. Is <yw> a reasonable grapheme to use for /ɪw/ ?

K.G. Yes, it is unique, it fits in well with the rest of the orthography of ***Kernewek Kemmyn***, and it was actually used in Middle Cornish in words which contained /ɪw/ {Fig. 17.3c}.

P.D. So the problems are to do with assertion (iii) ?

K.G. You bet they are ! But the problems are all of Nicholas Williams' making, not mine.

P.D. How do we check that assertion (iii) is correct ?

K.G. Again, by examining the orthographic profiles of the words concerned. I have laid these out in Figs. 18.2 to 18.5. Let us take ***byw*** first {Fig. 18.2}.

P.D. There is a mixture of <yv> and <yw> on the one hand and <ev> and <ew> on the other.

Orthographic profile of *byw* 'alive, lives' *Fig. 18.2*

Text-->	MC.	OM.	PC.	RD.	BM.	TH.	SA.	CW.
<yv>	0	1	1	0	4	0	0	0
<yw>	0	0	0	4	0	0	0	0
<ev>	0	2	3	0	3	0	0	0
<ew>-type	0	2	2	5	0	2	1	9

K.G. That is just what you might expect for a diphthong which is between [iw] and [ɛw]. No difficulty arises here. In Middle Cornish, both <yw>-type and <ew>-type spellings might mean [ɪw].

P.D. Good. The next case consists of words like ***bywnans***.

Orthographic profile of *byw-* in polysyllables *Fig. 18.3*

Text-->	MC.	OM.	PC.	RD.	BM.	TH.	SA.	CW.
<yw>	1	2	1	1	0	0	0	0
<eu,ev>	1	3	3	2	19	1	0	0
<ew>	10	21	5	10	10	53	3	26

K.G. Fig. 18.3 shows the same mixture, but the <yw> spellings are more heavily outnumbered by the <eu, ev, ew> spellings.

P.D. In *CT §6.3,* Dr Williams writes: "..... **bywnans* is entirely alien to Cornish and does not appear in the language at any period."

K.G. No, it does not appear; but it is hardly "alien". It would not be an inappropriate spelling in Middle Cornish, in view of the five cases with <yw> actually found:

CE 32	*hedyr vywy hag arlu3es*	***bywi***	'thou mayest live'
OM 243	*vynytha hedre vywy*	***bywi***	'thou mayest live'
OM 1877	*wheth ol bywe y a wra*	***bywa***	'to live'
PC 2930	*hedre vywhy*	***bywi***	'thou mayest live'
RD 2210	*nym bus bywe na fella*	***bywa***	'to live'

P.D. The two cases of *bywe* show that Dr Williams is incorrect when he states *(CT §13.28)* that 'to live' in Middle Cornish is always *bewe* or *bewa.* But why the great objection to ***bywnans*** ?

K.G. Because according to Dr Williams' interpretation of the *y~e* alternation, *byw* might have contained [ɪw], but *bewnans* contained [ɛw]. This, if true, would mean that assertion (iii) is false.

P.D. But you have already shown that his interpretation is untenable {Section 15}.

K.G. Yes, because it depends on the Prosodic Shift having taken place .....

P.D. How pivotal the date of the Prosodic Shift is in all this !

K.G. It is indeed the corner-stone of Dr Williams' whole hypothesis. When that falls, almost all falls with it.

P.D. Now what about the other spelling, *bounans ?*

K.G. Nowhere in Middle Cornish, nor for that matter in *CW.,* can I find the word spelled in this way. The first instance is in Nicholas Boson's ***Jowann Chi an Hordh,*** dated *c.*1660.

P.D. Could you have overlooked one ?

K.G. Not, I think, in this case. The computer program which I wrote for locating words in Cornish texts works well. In fact, Dr Williams later states *(CT §17.7)* of *bownans:* "this latter spelling is unknown outside Late Cornish". It is almost irrelevant.

P.D. Is the case of ***klyw*** similar to that of ***byw*** ?

Orthographic profile of *klyw* 'hear !, hears' *Fig. 18.4*

Text-->	MC.	OM.	PC.	RD.	BM.	TH.	SA.	CW.
<yv, yw>	0	0	0	0	0	0	0	0
<ev>	0	0	1	1	0	0	0	0
<ew>	0	4	0	7	0	0	0	0
<ov>	0	0	0	0	3	0	0	0
<ow>	0	0	0	0	0	1	1	5

Orthographic profile of *klyw-* in polysyllables *Fig. 18.5*

Text-->	MC.	OM.	PC.	RD.	BM.	TH.	SA.	CW.
<yw>	0	0	0	0	0	0	0	0
<eu,ev>	0	1	3	0	0	0	0	0
<ew>	22	13	11	13	1	0	0	1
<ov>	0	0	0	0	1	0	0	0
<ow>	0	1	2	0	32	20	2	8
Other types	0	0	0	1	1	0	0	0

K.G. No, there are two distinct differences, shown in Figs. 18.4 and 18.5:
(a) the ***klyw*** words were sometimes spelled with <ov> or <ow>, while the ***byw*** words were not, at least, not until the Late Cornish phase;
(b) the ***byw*** words were sometimes spelled with <yv> or <yw>, while the ***klyw*** words were not.

P.D. What is the significance of these differences ?

K.G. The spelling of the diphthong in the verbal stem changed from type <ew> to type <ow>. This may represent a sound-change from [ɪw] to [ɔw]. Fig. 18.5 shows that the central date of this change was after the time of the Ordinalia, and the newer spelling is not included in ***Kernewek Kemmyn***..

P.D. The monosyllabic ***klyw*** changed similarly, I see from Fig. 18.4.

K.G. I do not think that this was a proper sound-change. Rather the word was re-modelled on the new stem.

P.D. What about the fact that the ***klyw*** words were never spelled with <yv>/<yw> ?

K.G. That may or may not be significant. I have assumed that, before it changed to [ɔw], the diphthong in the ***klyw*** words was the regular [ɪw], and that the absence of <yw>-type spellings is attributable to mere chance. It is possible, however, that ***klywes*** behaved anomalously.

P.D. In what way ?

K.G. The /ɪw/ diphthong in this word might have changed at an early date to /ɛw/, like the way in which the vowel in ***krev*** 'strong' changed from /ɪ/ to /ɛ/ {Section 6}.

P.D. Does this mean that Dr Williams might be right in implying that ***klywes*** contained /ɛw/ ?

K.G. In the narrow sense, yes, he might be right.

P.D. What do you mean by "in the narrow sense" ?

K.G. If ***klywes*** did contain /ɛw/, then it was an exceptional development; because Dr Williams may be right about this one root, it does not mean that he is right about the *w*-diphthongs in general.

P.D. Are you saying that both his interpretation and your interpretation are valid ?

K.G. Yes, so far as this one root ***klyw-*** is concerned.

P.D. I see that the comments which you published in *Kernow* are relevant here.

K.G. Have you got a copy to hand ?

P.D. Yes, as editor I keep all the back numbers. This is what you wrote:

There is a measure of uncertainty ("experimental error") associated with the reconstruction of Cornish. Some is due to variation within the traditional language. Some is due to differing interpretations of the data. Dr Williams' description of ***Kernewek Kemmyn*** as inauthentic means rather that it is at variance with his interpretation of the data. Once a reconstruction approaches traditional Cornish so closely as to be within the zone of uncertainty, then it is as authentic as it can be. It is possible for two reconstructions to be within the zone of uncertainty, and yet to differ.

Any further comments ?

K.G. I stand by this statement, even though Dr Williams tried to use it as evidence that the promoters of ***Kernewek Kemmyn*** were less sure of themselves as they had been.

P.D. This topic is rather complicated. Before we leave it, I should like you to answer Dr Williams' statement in *CT §13.28:* "I believe that these two forms, *klywes* 'to hear' and *bywnans* 'life' are by themselves quite enough to undermine any claim that KK has to acceptability."

K.G. So far I have refrained from using retorts like "Rubbish !" on the grounds that they do not help a reasoned argument. In this case, I have presented the reasoned argument for the use of these forms, and therefore feel free to cry "Rubbish !"

P.D. There's no more to be said.

Well, there is more to be said. Of the three tenets on page 120, (iii) is incorrect. The words contained /ɪw/ in PrimC, but it was lowered to /ɛw/, giving MidC *clewas* > *clowas* and MidC *bewnans* > LateC *bounans.* It was the failure to recognize the early date of this lowering which led to the spellings ***klywes*** and ***bywnans*** in GM09: they represent a phase earlier than the MidC texts, and were changed to ***klewes*** and ***bewnans*** in GM20. In fact the revision went too far; ***byw*** 'alive' was changed to ***bew***, whereas it would have been better to retain ***byw***, showing vocalic alternation with ***bewa*** 'to live'. Dr Williams is right about the spellings of these words, but they have nothing to do with the prosodic shift.

19 Middle Cornish *fowt* and *faut*

P.D. The last criticism concerning *w*-diphthongs is:

C6) Kernewek Kemmyn is unaware that /ow/ and /aw/ were falling together as /aw/ in Middle Cornish

Is this one rubbish ?

K.G. Dr Williams must be scraping the barrel. I am surprised that he picked on this, and not on the change *ew* > *ow,* for which there is far more evidence.

P.D. In *CT §6.7,* he gives a table with a number of examples.

K.G. In the introduction to this table, he writes "Original /ow/ < /o.w/ was also affected by the prosodic shift." This implies to me that the contents of the table are intended to be words which contain original /ɔw/. In fact, all of the words, except ***kavoes****,* contain original /aw/:

KERNEWEK KEMMYN	ENGLISH MEANING	ORIGINAL PHONEME	ETYMOLOGY
fowt	'fault'	/aw/	Norman-French *faute*
jowl	'devil'	/aw/ < /aβ/	Latin *diabolus*
lowr	'enough'	/aw/	Celtic
Sowsnek	'English'	/aw/	Latin *Saxo*
Sowson	'Englishmen'	/aw/	Latin *Saxones*
Sen Powl	'St Paul'	/aw/	Latin *Paulus*
saw	'except'	/aw/	Middle English *sauf*
kavoes	'to get'	/av/	Celtic
owr	'gold'	/aw/	Latin *aurum*

P.D. What is the significance of that ?

K.G. The table is totally irrelevant. If it shows anything, it shows the opposite change to that alleged by Dr Williams, i.e. /aw/ > /ɔw/ (in closed syllables) rather than /ɔw/ > /aw/.

P.D. Amazing ! But does this depend on what is meant by "original" ?

K.G. I am clear what I mean. I mean the phoneme operative in the word at the time of its first inclusion in Cornish, either in Primitive Cornish (from Proto-Celtic or Latin), or later as a loan-word. Most of the phonological developments are summarized on page 147 of *PSRC.*

P.D. What about /ɔw/ finally in unstressed syllables ?

K.G. I have set out the orthographic profile in Fig. 19.1. It is evident that in Middle Cornish, <ow>-type spellings were overwhelmingly dominant.

Spelling of /-ɔw/ when unstressed *Fig. 19.1*

Examples used:
(a) Plurals in /-ɔw/
(b) /-ɔw/ arising from svarabhakti in Old Cornish
e.g. ***marow*** 'dead'
(c) Other words, e.g. ***Kernow*** 'Cornwall', ***pysadow*** 'prayer'

Block -->	OCV	MC+	ORD	BSM	TH+	CW+	L17	EDL	L18
<ow>-type	8	119	515	332	345	143	34	60	63
<o>-type				1	7	0	8	18	12
<aw>-type	1				1	12	16	16	5
<u>-type	1	1					1	16	0
<a>-type					1	0	5	1	3
Other	5		1					1	

<ow>-type includes <ou, oû, ov, ow, owe>
<o>-type includes <o, oe> and the reversed spelling <ogh>
<aw>-type includes <au, aw, awe>
<u>-type includes <u, iu, oo> and the reversed spelling <oug>

P.D. So the pronunciation [-ɔʊ] and the spelling <-ow> are fully justified in ***Kernewek Kemmyn.***

K.G. Correct. Other developments may have been manifest in mediaeval times, but it was only in Late Cornish that they became significant. It is important to note that the development <-aw> mentioned in *CT §6.7* is only one of five, represented by the spelling types <-ow> (the status quo), <o>, <aw>, <u> and <a>.

P.D. Dr Williams also mentions the testimony of Lhuyd.

K.G. It is worth quoting Lhuyd in full here (*Archaeologia Britannica,* p.242):

> *This plural in* ou, *is frequently pronounced at preſent as if it terminated in* o: *as* Noɐdho, *News;* Hụelio, *Works;* Delkio, *Leaves;* Godho, *Geeſe;* Neitho, *Neſts.*
> *And ſometimes in* aụ; *as* Kêaụ, *Hedges;* Guelîau, *Beds;* Breihaụ, *Arms; or elſe in* ụ; *as* Luzụ, *Herbs;* Lụdnụ, *Cattle.*

Clearly, he identifies four of the five developments.

P.D. What do you think the corresponding pronunciations were ?

K.G. <-o> may mean [-ɔ], in which case it is a "new" unstressed [-ɔ], since the "old" one (as in words like ***ganso*** 'with him') had been reduced to /a/. I am by no means convinced that Late Cornish <-aw> and Lhuyd's <-aụ> actually meant [-aʊ], as Dr Williams implies: I suspect that this too meant [-ɔ]. <-u>-type spellings suggest [-u].

P.D. No reduction to schwa here !

K.G. In general, no; though the last development, that of <-a>, the case not mentioned by Lhuyd, may represent a weakening to [ə]. Oliver Padel gives some examples in place-names.

P.D. Can you now sum up your answer to criticism C6 ?

K.G. A firm riposte: firstly, there is no clear evidence that there was a change /ɔw/ > /aw/ (rather the reverse);[1] secondly, those changes which did apply to (unstressed) /ɔw/ belonged to the phase of Late Cornish and not Middle Cornish, so there would be no need for ***Kernewek Kemmyn*** to "be aware" of them;[2] thirdly, because these developments occurred in the Late Cornish phase, they cannot be used as evidence for an alleged prosodic shift in the thirteenth century.[3]

P.D. Thank you very much. That didn't take long to deal with.

K.G. Just a minute ! I have been thinking about the change *ew* > *ow,* which I mentioned earlier.

P.D. What about it ?

K.G. Although Dr Williams does not include it explicitly in his list of 26 criticisms, he does include it in *CT §A3.0(3),* where he has the insolence to emend a passage written in ***Kernewek Kemmyn***, converting it into UCR Almost all of his "emendations" are wrong.

P.D. Don't worry about it; it sounds like a severe case of Matthew chapter 7 verse 3 !

K.G. We still ought to look at *ew* > *ow,* since it is by invoking this change that Dr Williams emends *Kernewek* to *Kernowek.* The change occurred to medial <ew> in polysyllables, but the number of examples of <ew> before a vowel (like ***Kernewek,*** which is not actually attested in Middle Cornish) is very limited. In Fig. 19.2 I have set out what happened to /ɛw/ before a consonant.

Fig. 19.2

Spelling of /-ɛw-/ when stressed before a consonant in polysyllables

Examples used: Mainly words containing the roots
kews- 'to talk', ***rewl-*** 'to rule', ***tewl-*** 'to throw'

Block -->	OCV	MC+	ORD	BSM	TH+	CW+	L17	EDL	L18
<ew>-type	0	40	65	11	5	0	0	3	0
<ow>-type	0	2	1	9	6	13	13	8	3
<u>-type	1	1	0	0	6	0	0	1	0

P.D. The change from <ew> to <ow> appears to have taken place in the sixteenth century .....

K.G. ..... which explains why it is taken into account in UCR, but not in ***Kernewek Kemmyn***.

[1] The discovery of *Bewnans Ke* sheds more light on the first topic discussed in this chapter. The common plural suffix *-ow* is often spelled *-aw* in BK, supporting Dr Williams' suggestion of /-ɔʊ/ > /-aʊ/. This change parallels that of [-ɔC] > [-aC], where C is any consonant or group of consonants.

[2] Stet.

[3] Stet.

20 ***treys* and *payn***

P.D. Criticism C5 claims that "original /ej/ and /aj/ had fallen together as /aj/ in Middle Cornish". What does Dr Williams mean by original /ej/ ?

K.G. By /ej/ he means here the diphthong found in words like ***treys*** 'feet', which is spelled <ey> in ***Kernewek Kemmyn****;* as I said before {Section 9}, I prefer to label it /eɪ/.

P.D. I understand that, but why does he use the expression "original" ?

K.G. /e͡ʊ/ arose mainly from the falling together of three different diphthongs in Old Cornish, so that almost all the words containing it are native Cornish rather than loan-words from English. Some examples are given in Fig. 20.6.

P.D. And the pronunciation, for the record ?

K.G. In ***Kernewek Kemmyn****,* the word ***eyl*** 'second' is pronounced as ['eɪl], that is, somewhat like the English word *ale,* but with a closer first element.

P.D. And what is /aj/ ?

K.G. The symbol used by Dr Williams to denote the diphthong in words like ***payn*** 'pain' .....

P.D. ..... which you write phonemically as /aɪ/ ?

K.G. Yes; in ***Kernewek Kemmyn*** words like ***payn*** are written with <ay>.

P.D. And pronounced more like English *pine* than *pain ?*

K.G. That's right; it's essential to make a difference between the sounds in the two groups of words.

P.D. Ah, now we come to the argument. Dr Williams claims in *CT §13.29* that "the two diphthongs fell together early as a result of the new prosodic system", so he thinks that there was no difference between the sounds.

K.G. Well, we know that the bit about the new prosodic system is nonsense, because the prosodic shift did not take place until the early 17th century. But we still ought to consider whether the two diphthongs coalesced or not.

P.D. How can we do that ?

K.G. The way which I did it in the 1980s was to examine the orthographic profiles produced by over twenty words in each group of words. These are reproduced as Figs. 20.1 and 20.2.

Fig.20.1

Orthographic profile of historical /eɪ/ in 25 words

Block -->	MC+	ORD	BSM	TH+	CW+	L17	EDL	L18
<ay>-type	0	0	0	0	4	0	1	0
<ey>-type	14	**54**	13	**21**	0	1	16	2
<y>-type	2	**38**	11	**8**	10	10	5	14
<e>-type	0	0	0	0	4	0	1	0

K.G. In Middle Cornish, /eɪ/ was represented by a mixture of <ey>-type and <y>-type spellings.

P.D. Why were these ***treys***-type words often written with <y> ?

K.G. To answer that, we have to remember that Cornish was for the most part written as if it were English, and take into account the effect of the Great Vowel Shift in English. We have already looked at this {Section 9}. The vowel in English words like *price, fine* and *mile* suffered a whole series of sound-changes as a result of the Shift (Wells, 1982):

[iː] > [ɪi] > [ei] > [əɪ] > [ʌɪ] > [aɪ]
*c.*1450 *c.*1550 *c.*1625 *c.*1700 *c.*1825

but its spelling did not change so much: at first it was <y> or <i>, representing Middle English [iː]; later, <i-e> was generalized to denote what became known as "long i", by now a diphthong. Sometimes Cornish scribes identified the sound in Cornish /ɛɪ/ with the diphthongal sound in these English words, and therefore wrote Cornish words containing /ɛɪ/ with the contemporary spelling for English "long i", viz. <y>.

P.D. Particularly in Late Cornish, according to the table.

K.G. Yes, except that Lhuyd usually used <ei>. Now look at the spellings of words like ***payn***-type words in Fig. 20.2. In Middle Cornish, /aɪ/ was represented by a mixture of <ay>-type and <ey>-type spellings.

Fig. 20.2

Orthographic profile of Middle Cornish /a✋/ in 21 loan-words

Block -->	MC+	ORD	BSM	TH+	CW+	L17	EDL	L18
<ay>-type	**14**	**27**	**17**	**26**	**27**	0	0	6
<ey>-type	**24**	**40**	**26**	**53**	0	0	0	0
<y>-type	0	1	1	0	1	0	0	2
<e>-type	0	2	4	3	1	0	0	0

K.G. To summarize, the correspondence between the two phonemes and the various graphemes is as follows:

Fig. 20.3

Commonest graphemes used to denote words like *treys* and *payn*

	/ɛɪ/ ***treys*** etc.	/aɪ/ ***payn*** etc.
Middle Cornish	<ey> and <y> types	<ay> and <ey> types
CW.	<ay> and <y> types	<ay> type
Late Cornish	<y> type	<ay> type
Lhuyd's writings	<ey> and <y> types	no data

P.D. I see that <ey>-type spellings were commonly used for both phonemes. Was it this which caused Dr Williams to think that they had fallen together ?

K.G. I think not. In *CT §6.8* he writes about the problem at some length, but his discourse does not, to my mind, take the form of a reasoned argument. His so-called "convincing evidence" seems to be the following (Fig. 20.4):

Fig. 20.4

Dr Williams' arguments for supposed fusion of /ɛɪ/ and /aɪ/

(a) The word ***paynys*** 'pains' was borrowed with /ɛɪ/, but two spellings with <ay> in *MC.* suggest that it was pronounced with /aɪ/.

(b) The word for 'turn' was borrowed with /ɛɪ/, but two spellings with <ay> in *CW.* suggest that it was pronounced with /aɪ/.

(c) The feminine form of 'three', which certainly contained original /ɛɪ/ (cf. Breton *teir)* was spelled thrice with <ay> in *CW.*

(d) The elements ***dreyn*** 'thorns' and ***keyn*** 'back' appear in place-names as <drine> and <kine> respectively, which suggests a pronunciation with /aɪ/.

P.D. What is wrong with this ?

K.G. Nearly everything. Let us take the points in reverse order. (d) is easily explained by invoking the explanation given above for <y>-type spellings of /ɛɪ/: Cornish words containing /☜✋/ were often written using a spelling for English "long i", with which it was identified. At first, this was <y>, but later <i-e> was used. When <drine> was first used to denote ***dreyn,*** the <ine> did not mean [aɪn] as it does in today's standard English, but a sound more like [eɪn], as in *plain*.

P.D. So the sound [aɪn] represents modern English, not Cornish ?

K.G. Exactly. Point (c) may be explained by a similar argument. Because <ay>-type spellings were occasionally used in *CW.* for words in the ***treys*** set, it does not necessarily mean that the pronunciation had changed to [aɪ].

P.D. What other explanation is there, then?

K.G. That the pronunciation stayed the same, but the spelling which represented it changed. The spelling of *CW.* is more like present-day English than that of the

earlier plays. Suppose you asked an English speaker to pronounce the word *dayer* (at *CW.2088)*

P.D. He would rhyme it with the English word *layer,* I would imagine.

K.G. Agreed. Now *dayer* is the word ***teyr*** 'three (f.)', mutated here for no apparent reason, and therefore contained original /ɛɪ/. There is no need to assume a sound-change here.

P.D. Can we go on ?

K.G. Certainly. Points (a) and (b) concern the loan-words. It is known that these had two separate original sources (Gimson, 1962) .....

(i) Middle English /ai/ < Old English [æː] + [j], e.g *clay;*
Old French [ai], e.g. *chain;*

(ii) Middle English /☜i/ < Old English [ɛ] + [j], e.g. *way, play;*
Old French [ei], e.g. *faith, obey*

..... and that these diphthongs fell together *c.*1300.

P.D. Dr Williams points this out in *CT §6.8.*

K.G. Yes, we agree on this. This material is found in any good text-book on the phonological history of English. Where we disagree is when the words were borrowed into Cornish. Dr Williams writes "It seems probable that most of the Middle English borrowings were already in the language before that". I think that most of the loan-words were borrowed into Cornish after the date that the two original sounds fell together.

P.D. Why ?

K.G. Because if they had been borrowed before the fusion of early Middle English /ɛi/ and /ai/, then we would expect almost all of the spellings of those from /ɛi/ to be <ey>, and almost all the spellings of those from /ai/ to be <ay>. This is not the case; words in groups (i) and (ii) above were spelled indiscriminately with <ay> and <ey>, even in the same text.

P.D. So your earlier investigations of this matter appear to be correct ?

K.G. They do. In order to check them further, however, I have looked at the profiles of individual words, on the basis of individual texts. This gives a more detailed picture, shown in Figs. 20.5 to 20.7.

P.D. Why have you separated the data for the word *treylye ?*

Spelling of the diphthong /aɪ/ *Fig. 20.5*

Text -->	MC.	OM.	PC.	RD.	BM.	TH.	SA.	CW.
fay 'faith'								
<ay>-type	0	2	10	5	13	0	0	0
<ey>-type	0	3	7	2	0	0	0	0
hayl 'hail'								
<ay>-type	0	0	3	0	0	0	0	0
<ey>-type	0	4	28	0	1	0	0	0
payn 'pain' + morphological variants								
<ay>-type	11	2	2	5	0	12	2	24
<ey>-type	22	7	4	15	17	0	0	0
<y>-type	0	1	2	1	0	0	0	1
traytour 'traitor' + plural								
<ay>-type	3	0	2	0	0	0	0	0
<ey>-type	2	0	3	2	5	0	0	0

Spelling of the diphthong /ɛɪ/ *Fig. 20.6*

Text -->	MC.	OM.	PC.	RD.	BM.	TH.	SA.	CW.
keyn 'back'								
<ey>-type	0	5	8	1	2	0	0	0
<y>-type	0	1	1	1	0	0	0	0
meyn 'stones'								
<ey>-type	8	3	1	0	0	0	0	0
<y>-type	0	2	0	0	0	0	0	0
seyth 'seven' + compounds; **seythun** 'week'								
<ey>-type	0	2	0	0	0	0	0	0
<y>-type	0	1	0	3	4	0	0	2
treys 'feet'								
<ey>-type	5	1	17	5	4	2	0	0
<y>-type	0	0	4	0	0	0	2	2

The Middle Cornish word *treylye* and its variants *Fig. 20.7*

Text -->	MC.	OM.	PC.	RD.	BM.	TH.	SA.	CW.
<ay>-type	0	0	0	0	0	0	0	3
<ey>-type	0	6	9	2	10	3	0	5
<y>-type	15	0	3	0	0	0	3	0
<e>-type	0	0	0	0	1	10	1	0

K.G. Because, when you compare its profile with those of the words containing /aɪ/, it does not fit.

P.D. In what way ?

K.G. There are no <ay>-type spellings in any text earlier than *CW*. The profile is much more like those of the words containing /ɛɪ/.

P.D. What do you conclude from that ?

K.G. That *treylye* was indeed borrowed with /ɛɪ/, as Dr Williams suggests, and that it was borrowed before *c.*1300, so that it became identified with the ***treys*** set of words rather than the ***payn*** set.

P.D. What implications has this for ***Kernewek Kemmyn*** ?

K.G. The spelling in *GLKK*, ***trelya,*** is incorrect. It should be ***treylya,*** as Julyan Holmes has pointed out to me.

P.D. Does this mean that Dr Williams is right in this matter ?

K.G. His spelling of this word is right. His arguments (a), (b), (c) and (d) in Fig. 20.4 appear false.

P.D. I find it astonishing that a University lecturer in a department of Celtic studies should make such errors, and worse, propagate them.

K.G. I agree.

21 ***kas*** and ***jentyl***

P.D. I have been checking the list of Dr Williams' criticisms, and note that we have dealt with all those which are concerned with phonology. I would now like to return to the orthography of Cornish, and raise the following:

C20) Kernewek [Kemmyn] uses graphs *[sic]* that are at variance with mediaeval and modern practice, e.g. <k> before back vowels as in *Kammbronn;* <kw> for <qu> and <hw> for <wh>.

K.G. It is clear that in this context, Dr Williams regards /a/ as a back vowel, for he objects to <ka->. I ought to point out that <ka-> is by no means unknown in the texts. For people like Ray Edwards, who like to see actual cases cited, here is a list of cases of <ka-> in Middle Cornish:

CE 26c *__ka__m na ve3o*
MC.1562a *__ka__vanskis ef a whelas*
OM 126 *gaver yweges __ka__row*
OM 321 *ny dal thys __ka__uanscuse*
OM 341 *ene tus mara __ka__faf*
OM 471 *ov __ka__fus banneth ov mam*
OM 478 *war an karrygy dege*
OM 497 *__ka__fus y thege hep gref*
OM 750 *guyn ov bys kafus cummyas*
OM 1826 *__ka__fus ken the thyscrysy*
OM 2410 *masons ha __ka__rpentorryon*
OM 2422 *the ol an __ka__rpentoryon*
OM 2482 *__ka__fus gyst cref na vo guan*
PC 30b *hep stryf ha __ka__s*
PC 452 *me a cache an __ka__sadow*
PC 544 *pup vr warnogh ow __ka__rme*
PC 1293 *na venta __ka__mmen tryle*
PC 1579 *wolcom __ka__yfas rum leaute*
PC 2921 *thyn the wruthyl then __ka__ngeon*
BM 15 *y __ka__rsen y exaltya*
BM 65 *ewne yv 3yn 3eth leuf __ka__ra*
BM 74 *me a bys du __ka__radow*
BM 1024 *hag orth an __ka__rrek kefrys*
BM 3168 *kyn settyen oma __ka__rov*
TH 7a *may halla eff __ka__fus mercy war oll*
TH 11 *y thesan ny ow __ka__fas oll pub dadder the worth du an tas*
TH 14a *mas a rese thotha __ka__fus ken gweras,*
TH 15a *eff a* suffras *lyas* kynde *ha sorte a __ka__mmynsoth ha paynys*
TH 17a *na ny yll __ka__ntyll bos annowys ha gorys in dan* busshell,
TH 19 *__ka__fus* recoursse *then moyha* auncient *egglos,*
TH 21a *Han kythsam kerensa na a gottha thyn ny __ka__fus in agan myske*
TH 41a *in vhelder ha in eselder a res __ka__fus* gouernors
TH 51a *An feith a res thyn ny __ka__fus in agan colonow,*

P.D. Why are certain words in the extracts from Tregear in Roman type ?

K.G. Just to remind us how shot through are the Tregear Homilies with untranslated English words. There are plenty of cases of <ko->, too:

MC..612a	***ko****scough lemmyn mar sew prys*
MC..834b	*de3ewys heb koweras*
OM 2347	*salmon ov map* ***ko****roneugh*
OM 2471	***ko****wyth profyyn an styllyow*
PC 390	*y threheuel mara* ***ko****r*
RD 2408	*hag ow* ***ko****ddros*
TH 1	*an gerryow a thu an tas (****ko****wses warlerth an maner an bobill)*
TH 3	*ha mabden dre an* ***ko****ll a henna cothes in* extreme miseri *ha* wretchedness,
TH 21	*nynses tra vith moy* necessary *the vos gylwys warnotha ha* ***ko****wsys anotha* dayly *moy ys charite*
TH 23	*effa rug* acceptya paciently *pub tra a ve* ***ko****wsys thotha eff,*
TH 29	*na rug eff* ***ko****wsse na moye mas an iii degre a* vncharitablines.
TH 31	*rag y ma S poulle ow* ***ko****wse a crist,*
TH 53a	*Rag y bos an gyrryow pleyn ha* symply *the vos kemerys kepar dell vonsy* ***ko****wsys.*
CW..649	***koo****ll ge thym men tha gesky*
CW..664	*ny vynnys* ***ko****la orthe da*

P.D. What about <ku-> ?

K.G. This time, I don't think there is any need to list them all. I have found 59 cases in Middle Cornish.

P.D. How does that compare with cases of <cu-> ?

K.G. There are 150 cases of <cu-> in Middle Cornish.

P.D. So 28% of all cases are spelled with <ku->: that's quite a significant percentage!

K.G. In words containing the cluster /sk/ before a back vowel, the percentage of spellings with <k> is even greater.

P.D. Some people still object to <ka, ko, ku, kr, kl>, however.

K.G. For no logical reason. As readers of English, they are unused to seeing these spellings, and raise objections on aesthetic rather than linguistic grounds, claiming that they are "bizarre", "alien and somewhat sinister", "strange" *(CT §13.15),* "exotic" *(Which Cornish ? page 8).* In my view, these are invalid grounds for objection.

P.D. You said "readers of English": don't you mean Cornish ?

K.G. No, I mean English. The use of <c> before <a,o,u,l,r> and <k> before <e,i,y> is an English convention. It was used in Cornish, though not exclusively, as we have seen, because Cornish had no convention of its own. There is, therefore nothing peculiarly Cornish about the way in which /k/ was spelled.

P.D. So the objections are to an un-English spelling ?

K.G. Yes; readers of English are not used to <ka->, for instance, because there are relatively few words in English, like *kame* (a mound deposited by a glacier) and *karst* (dry limestone scenery) which start with <ka->; but it doesn't take very long to get used to it.

P.D. There are plenty of girls named Kate who would agree with that .....

K.G. ..... but not many named Cate !

P.D. You could say that the absence of a distinctive Cornish orthography in times past has now been put right by the introduction of ***Kernewek Kemmyn***.

K.G. Let us consider a parallel case. It is of interest to compare the mediaeval spelling of /k/ with that of /ʤ/, because they have a lot in common. As in the case of /k/, the spelling of /ʤ/ in Middle Cornish depended on the following phoneme, and the conventions used were the same as those in Middle English {Fig. 21.1}.

P.D. What were these conventions ?

K.G. Initially and medially, <g> was used before <e, i, y>, e.g. *gentyl, danger;* and <i> or <j> (the same letter in mediaeval times) was used before <a,o,u>, e.g. *iustis.* In the Ordinalia, <gg> was sometimes used medially, e.g. *dyscryggygyon* 'unbelievers' at *OM.1855.*

P.D. I see from Fig. 21.1, Dr Williams uses <j> for /ʤ/ in almost all circumstances. In view of this, he can hardly criticize you for using <k> for /k/ everywhere.

K.G. His answer would be that it was necessary to generalize the spelling of /ʤ/ in order to avoid ambiguities, like *cregy* meaning both 'to hang' and 'to believe' *(CT §17.11);* whereas the English conventions for /k/, although cumbersome, are not ambiguous *(CT §13.16).*

P.D. So he is prepared to compromise his principles when there is a need to resolve an ambiguity.

K.G. Yes; this is confirmed by his use of <dh> instead of <th> in order to distinguish /ð/ from /θ/.

P.D. But he does not extend this to distinguish ***troes*** from ***tros***.

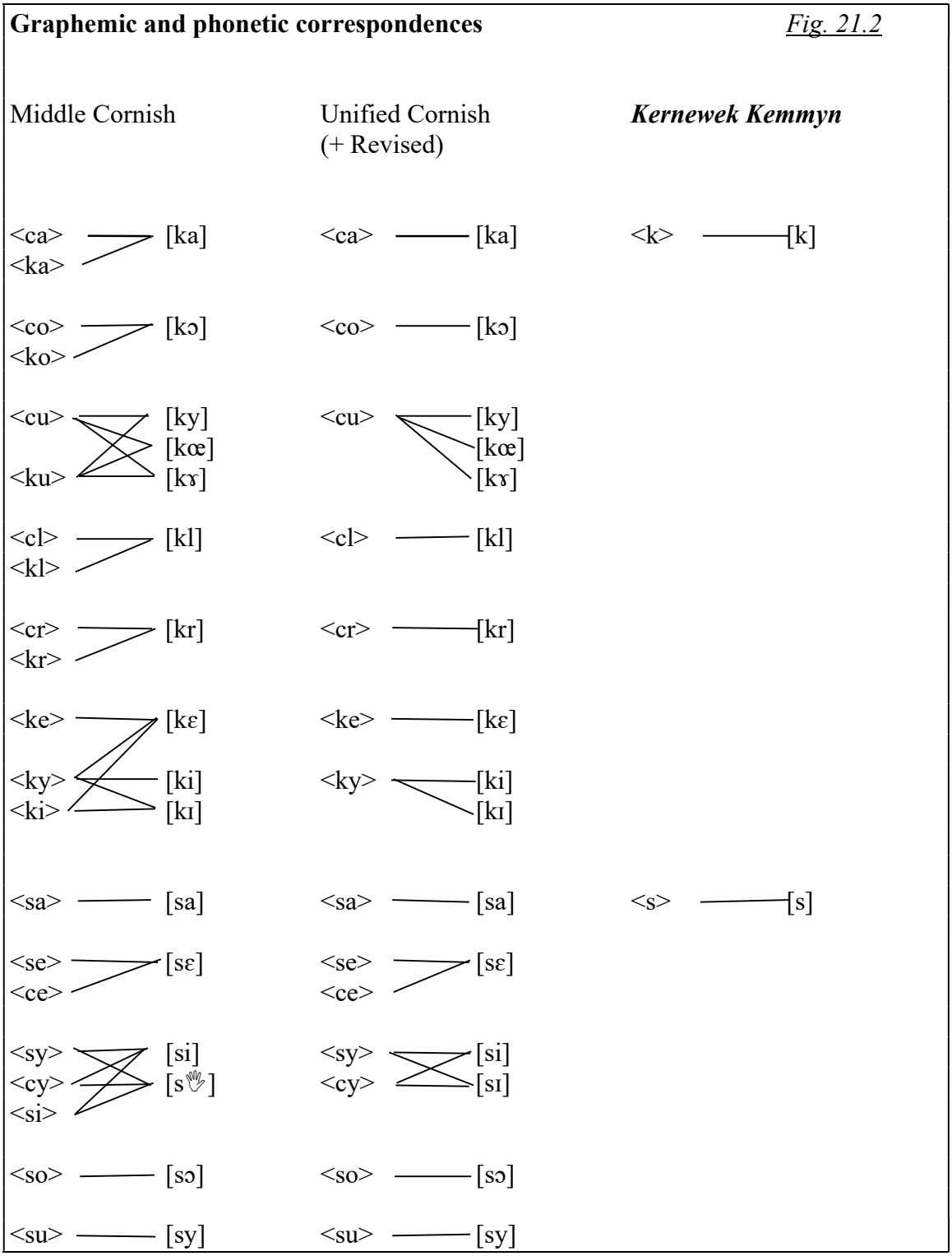
Spelling of phonemes /ʤ/ and /k/ *Fig. 21.1*

	INITIALLY	MEDIALLY	FINALLY
Spelling of /ʤ/			
Middle Cornish texts	<g> before <e,i,y> <i~j> before <a,o,u>	<g> before <e,i,y> <i~j> before <a,o,u>	<g, ch>
Late Cornish texts	<j>	<dg>	<dg>
Lhuyd	<dzh>	<dzh>	<dzh>
Jenner, Nance, Williams	<j>	<j>	<j, ch>
Kernewek Kemmyn	<j>	<j>	<j, ch>
Spelling of /k/			
Old Cornish	<c> before <a,o,u,l,r> <k, ch> before <e,i>	<c> before <a,o,u,l,r> <k, ch> before <e,i>	
Middle Cornish texts	<c> before <a,o,u,l,r> <k> before <e,i,y>	<c> before <a,o,u,l,r> <k> before <e,i,y>	<k>
Late Cornish texts	<c> before <a,o,u,l,r> <k> before <e,i,y>	<c> before <a,o,u,l,r> <k> before <e,i,y>	<ck>
Lhuyd	<k>	<k>	<k>
Jenner, Nance, Williams	<c> before <a,o,u,l,r> <k> before <e,i,y>	<c> before <a,o,u,l,r> <k> before <e,i,y>	<k> <k>
Kernewek Kemmyn	<k>	<k>	<k>

K.G. Indeed ! He prefers to deny the existence of the phoneme /o/ in ***troes***. Dr Williams' brief, his hidden agenda, if you like, is to defend Unified Cornish and to keep close to it. He has been so blinded by this unnecessary requirement that it has clouded his judgement when working out the historical phonology.

P.D. Let us get back to his representation of /k/.

Graphemic and phonetic correspondences *Fig. 21.2*



K.G. To show just how complicated the system is, look at Fig. 21.2. Unambiguous it may be, "elegant" it is not. Because in Unified Cornish, <c> can on occasion represent /s/ (as in *cyta* 'city'), the representations of /s/ have to be included as well.

P.D. Very revealing ! Is it fair, though, to include just <k> and <s> in the column labelled ***Kernewek Kemmyn,*** without indicating the following letters ?

K.G. Very fair ! That's the whole point !

P.D. What have you to say about the use of <kw> and <hw> instead of <qu> and <wh> ?

K.G. Again, <qu> and <wh> are English graphemes, and their relationship with <gw> is by no means obvious. Just look at the mutation table {Fig. 21.3}, and see how much easier it is when expressed in the orthography of ***Kernewek Kemmyn***.

Extract from the table of mutations *Fig. 21.3*

STATE		SOUNDS	UNIFIED CORNISH			***Kernewek Kemmyn***		
1	basic	/k/ /g/ /gw/	<c,k>	<g>	<gw>	***k***	***g***	***gw***
2	soft	/g/ /∇/ /w/	<g>	<∇>	<w>	***g***	***∇***	***w***
3	breathed	/h/ /g/ /gw/	<h>	<g>	<gw>	***h***	***g***	***gw***
4	hard	/k/ /k/ /kw/	<c,k>	<c,k>	<qu>	***k***	***k***	***kw***
5	mixed	/k/ /h/ /hw/	<c,k>	<h>	<wh>	***k***	***h***	***hw***

∇ means "nothing"

P.D. Yes, it's self-evident.

K.G. The relationship with the sounds is also much clearer, and the mutations of /gw/ are shown to be equivalent to those of /g/ + /w/.

P.D. I think that you have made your point.

K.G. I would just like to say that the universal use of <k> for /k/, and the representations of /kw/ by <kw> and /hw/ by <hw>, are not errors; they are improvements.

P.D. A thought just occurs to me. All along you have criticized Dr Williams for using exceptional spellings, and now you are using spellings which are in the minority.

K.G. In the minority, yes; but not nearly so rare as some of Dr Williams' exceptional cases: you earlier described 28% as quite a significant percentage. But that's not the point: Dr Williams uses exceptional spellings to support his untenable hypotheses about Cornish phonology; I am using these spellings because they fit in with the principles of the orthography of ***Kernewek Kemmyn****;* they just happen to be in the minority in the Middle Cornish texts.

P.D. We ought to examine the principles, then.

22 Improving the orthography of Middle Cornish

P.D. In his conclusion to the Appendix of *Cornish Today,* Nicholas Williams argues fiercely in favour of basing the orthography of revived Cornish strictly on that of the Middle Cornish texts. I know that you do not agree with this.

K.G. It would be a poor show, with our vastly increased knowledge of the Celtic languages and of linguistics, if we could not improve on the spelling of Cornish used in the Middle Ages.

P.D. What is wrong with the mediaeval spelling ?

K.G. So far as its application to revived Cornish is concerned, it has two major faults:
F1) its irregularity (the same word could be spelled in different ways);
F2) the correspondence between the spelling and the pronunciation was poor.

P.D. Does this matter ?

K.G. It did not matter to the average Cornish speaker in the Middle Ages, who knew how to pronounce the language, but was largely illiterate. It matters very much to present-day Cornish speakers, in a society with almost 100% literacy, where learners depend very much on the written word for guidance with pronunciation.

P.D. What should be done about it ?

K.G. The faults should be rectified. All proponents of Cornish spelling systems in the twentieth century (except Richard Gendall, at one time) have agreed that F1 should be rectified, by introducing a regular spelling.

P.D. Including Dr Williams ?

K.G. Yes - but he also wants to allow a large number of variants, e.g. for 'to them' he proposes *dhedha, dedha, dhedhans, dhodhans, dodhans, dhodhanjy.*

P.D. *(sarcastically)* Learners are going to love this !

K.G. They may also be interested to learn that none of these six forms is actually attested in the texts.

P.D. Well, well !

K.G. No; if Dr Williams had confined his tidying of the texts just to rectifying F1, he would have written the forms as actually found: *thetha, detha, thethans, thothans, dothans, tho anjye.*

P.D. Is he not "doing violence to the spelling of the texts" ?

K.G. It is clear that Dr Williams has a problem here. It comes about because he has decided also to tackle F2, at least partially. As he writes in *CT §17.1:*

> "Although UCR like UC has normalised the orthography of the texts, there are two significant ways in which both differ from mediaeval and Tudor orthography. In the first place UC and UCR both extend the use of <j> for /ʤ/ to situations where Middle Cornish normally wrote <g>. Moreover both replace <th> and <ʒ> by <dh> when the etymology suggests /ð/ rather than /θ/."

P.D. Isn't this reasonable ?

K.G. It depends on your philosophy. If, like me, you believe that the orthography of revived Cornish should be as phonemic as possible, then these improvements are essential, as indeed are others. But if you believe in Dr Williams' dictum that "Authenticity is the overriding criterion - indeed it ought to be the sole criterion" *(Which Cornish ?* p.6), then you should confine your attentions to rectifying F1.

P.D. So, for instance, Dr Williams should not have used <dh> for /ð/.

K.G. Correct. In *CT §17.12,* Dr Williams agonizes for four pages about this "problem". His assertion that "there is every reason to use <dh> for /ð/" has a hollow ring about it; it does not accord with the rest of his ideology.

P.D. Let us return to the first fault, F1. How should this be rectified ?

K.G. By regularizing (or normalizing) the orthography, so that a given word is always spelled the same way. There is a case to be made out for a standardized Middle Cornish orthography, which I shall call "SMidCor-C".

P.D. Not another spelling system for Cornish, I hope ! ***Dyw re'gan weresso !***

K.G. Now just bear with me for a while; I'm not advocating that these be used for revived Cornish: I'm putting forward the idea only to illuminate my argument. The idea would be to tidy up the mediaeval spelling so that as many words as possible had just one spelling, i.e. most of the orthographic noise would be eliminated.

P.D. Can you give me some examples ?

K.G. Well, the words for 'to go' and 'table', although containing different vocalic phonemes (/ɔ/ and /o/ respectively), would both be spelled *mos,* because this was the commonest spelling in Middle Cornish.

P.D. This is the spelling used for both words in Unified Cornish and in UCR.

K.G. Yes, because neither Nance nor Williams recognize that there are two different phonemes. Another example would be *seth,* which in SMidCor-C could stand for /seθ/ 'arrow', or /seð/ 'sinks'.

P.D. As in Unified Cornish.

K.G. Yes, but not in UCR, which would use *sedh* for 'sinks'.

P.D. This seems simple enough to me. Is it of any use ?

K.G. SMidCor-C might be of interest to someone who was keen on Middle Cornish, but who wanted to eliminate the irregularities: yet I suspect that such a person would still prefer to quote the actual texts in their original spelling.

P.D. Just what are the irregularities which would be eliminated by this ?

K.G. They are the following:
(a) scribal errors;
(b) variations within a text;
(c) variations from text to text.
We could write: *SMidCor-C* = *Middle Cornish text - (a) - (b) - (c)*
= *Middle Cornish text - F1*

P.D. What about rectifying the second fault, F2 ?

K.G. Whereas F1 may be rectified without paying any attention to the sounds which the Middle Cornish graphemes represent, the rectification of F2 must take them into account.

P.D. Can this be done without "doing violence to the spelling of the texts" ?

K.G. Not really. The best that one could do would be an orthography in which the graphemes used for each phoneme are chosen from the many variants present in Middle Cornish, such as to minimize the number of potential homographs. In some cases, this would mean choosing a variant which was not the commonest. I shall call such an orthography "SMidCor-P".

P.D. How would this affect the four examples which you gave ?

K.G. Unlike SMidCor-C, SMidCor-P **would** distinguish between the phonemes /ɔ/ *v.* /o/ and /θ/ *v.* /ð/.

P.D. How ?

K.G. By using <oy> for /o/, and <ʒ> for /ð/; so that we would have contrasts between *mos* 'to go' *v. moys* 'table', and *seth* 'arrow' *v. seʒ* 'sinks'.

P.D. <ʒ> isn't exactly an everyday grapheme !

K.G. No, but it's authentic, ain't it ?

P.D. Even when printed using a word-processor ? But I can see a more serious difficulty. Dr Williams doesn't agree that /ɔ/ and /o/ were separate phonemes.

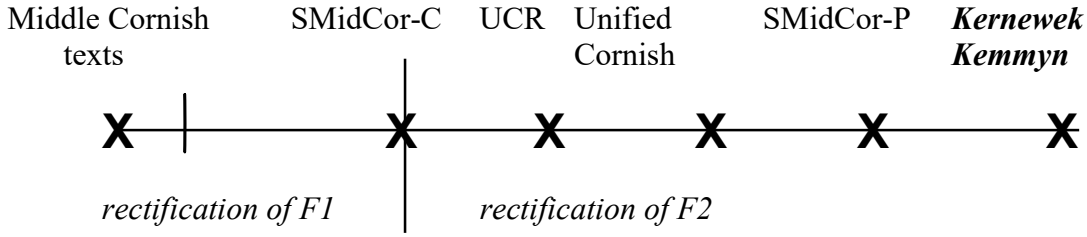
K.G. I have shown that he is wrong {Section 5}; yet you have a valid point: the rectification of F2 is dependent on the supposed phonemic structure.

P.D. How would "SMidCor-P" compare with your "SMidCor-C" ?

K.G. It would be much more phonemic, {Fig. 26.8} but would look rather less like genuine Middle Cornish, because in some cases, rarer graphemes would be used.

P.D. Can't the same be said of UCR ?

K.G. Yes, except that UCR has gone further down the road towards rectifying F2. One can envisage a spectrum of spelling systems: at one end we have the mediaeval texts themselves, with their large numbers of variant spellings; and at the other we have ***Kernewek Kemmyn***:



P.D. How did you rectify fault F2 for ***Kernewek Kemmyn*** ?

K.G. I firstly had to work out what the phonemic structure was, then assign a grapheme to each of the phonemes. The whole procedure was explained in *PSRC* sections 6.3 and 6.4 (though there have been slight subsequent modifications to the results, as everyone knows).

P.D. That seems very straightforward.

K.G. Yet Dr Williams does not appear to understand it. He believes so strongly that the orthography of revived Cornish should be based on that of the texts, that he constantly analyses and criticizes ***Kernewek Kemmyn*** in these terms. This is a sterile approach; it is not the way to look at ***Kernewek Kemmyn***.

P.D. Please give me an example.

K.G. In his lecture at Lostwithiel, he said:

> "Kernewek Kemmyn repudiates Late Cornish in favour of Middle Cornish. Yet Kernewek Kemmyn uses <k> in *krev* 'strong', *kov* 'remembrance', <hw> in *hweg* 'sweet', *hwegh* 'six' and <v> in *ov* 'I am', *gwelav* 'I see' where Unified Cornish uses <c>, <wh> and <f> respectively. These spellings in Kernewek Kemmyn are Late, not Middle Cornish."

Now it is pure coincidence that these spellings are Late rather than Middle Cornish. The orthography of ***Kernewek Kemmyn*** is not a "pick and mix" job from the various spellings in all the texts. In fact, the orthography of ***Kernewek Kemmyn*** is **not based directly** on that of the texts. I cannot emphasize enough that it is the written manifestation of the phonological base, and it is the phonological base which is based on the texts.

P.D. All of the texts ?

K.G. Yes, all of them, and the place-names. In choosing which graphemes to use, the orthography used in the texts was only one of a number of factors taken into consideration. I also took into account the graphemes which are used in Welsh and in Breton.

P.D. So there is no particular reason why the orthography of ***Kernewek Kemmyn*** should be the same as that used in the texts ?

K.G. No; to take an extreme example, if there had been some over-riding reason to use the Cyrillic alphabet to spell Cornish, I would have advocated it. Fortunately there was not.

P.D. All of this sounds very logical, yet the orthography of ***Kernewek Kemmyn****,* by your own admission, is not perfectly phonemic, and Dr Williams obviously doesn't like the way in which you talk about phonemic theory *(CT §13.10).* What have you to say about this ?

K.G. That's a subject for another discussion.

23 Deviations from the phonemic principle

P.D. Please could you tell me how ***Kernewek Kemmyn*** deviates from the phonemic principle of "one unique grapheme to each phoneme".

K.G. There are two forms of deviation from a one-to-one correspondence:
(a) where a single grapheme is used for more than one phoneme;
(b) where a single phoneme is represented by more than one grapheme.

P.D. Which is more serious ?

K.G. For a population which learns Cornish by reading it, definitely the former. Fortunately, there is only one notable deviation in this category in ***Kernewek Kemmyn***.

P.D. Ah, yes, <y>.

K.G. It denotes both the semi-vowel /j/, as in ***yar*** 'hen' and the vowel /ɪ/, as in ***bys*** 'world'. A similar dichotomy occurs also in Unified Cornish and in Dr Williams' revision of it, and in practice, it is not a serious problem.

P.D. What about category (b) ?

K.G. Examples of this are more numerous, because as Dr Williams points out in *CT §13.10,* the near-phonemic orthography was designed primarily for stressed monosyllables.

P.D. Why was it not extended to unstressed syllables ?

K.G. Because some sounds in unstressed syllables are treated in a different way.

P.D. How are they treated ?

K.G. The spelling in ***Kernewek Kemmyn*** refers to the underlying phonology rather than to the actual phonemes involved.

P.D. What do you mean by "the underlying phonology" ?

K.G. The phonological base of ***Kernewek Kemmyn***. This base is at a deeper level than the phonemes themselves, for it takes some account of the morphology as well.

P.D. I don't understand what you are getting at. Can you explain the idea of levels, and give a definition of morphology for the record ?

K.G. Morphology is concerned with chopping up words into roots and affixes; for instance, in the word ***gwydhenn*** 'tree', ***gwydh*** 'trees' may be regarded as a root, and ***-enn*** a singulative suffix, with the meaning 'one individual in a group'.

P.D. Why bring morphology into this ?

K.G. Why indeed ? The strict or classical phonemic theory, and I suspect the one favoured by Dr Williams in *CT §13.10,*, sought to keep phonology fully independent of morphology and syntax. It is this classical theory which is behind his theoretical objections to ***Kernewek Kemmyn***.

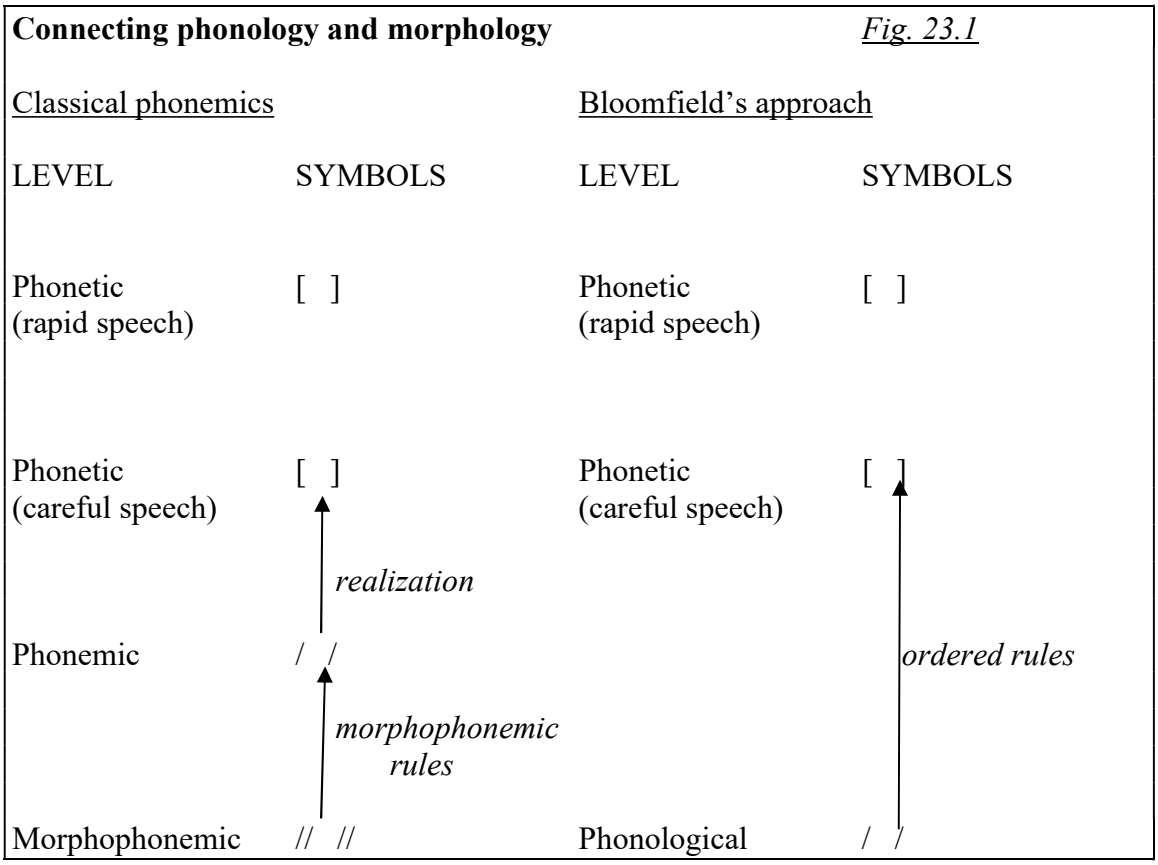
P.D. Do you agree with this principle ?

K.G. No; I believe that one can get only so far with this approach; that the further one goes, the more one comes up against difficulties which are morphological in nature. It is better, in my view, to admit *a priori* that phonology and morphology are really linked; I feel this intuitively, as a linguist. One might as well take account of this fact, and indeed the spelling of ***Kernewek Kemmyn*** takes advantage of it.

P.D. In what way ?

K.G. Before answering that, I want to explain the levels which you asked about. Look at Fig. 23.1. The left part, representing classical theory, shows four distinct levels. The top one represents what one hears in rapid speech .....

Connecting phonology and morphology *Fig. 23.1*



P.D. Like ['gɔffɔs] for ***godhvos*** *?*

K.G. Yes, or ['rakθɔ] for ***ragdho***. The next represents careful speech, such as someone reading aloud. Below that there are the phonemes. Most of the orthography of ***Kernewek Kemmyn*** applies at this level.

P.D. What is the lowest level, then ?

K.G. It is a combination of phonological and morphological factors, known as the morphophonemic level. It represents part of the underlying structure of the language. In order to refer to this level, double slanting lines // // are sometimes used.

P.D. What does the right-hand half of the table mean ?

K.G. It shows Bloomfield's ideas on this subject.

P.D. Who is Bloomfield ?

K.G. Bloomfield was a phonologist who flourished in the 1930s. His idea was to simplify the table by eliminating the phonemic level. In this way he got around a number of difficulties associated with the concept of phonemes. In place of the two-step jump to the phonetic level, he substituted sets of rules which transform the underlying phonology to the speech actually heard.

P.D. I notice that the lowest level is labelled "Phonological"; isn't this confusing ?

K.G. Yes. Also, you will notice that because Bloomfield does not explicitly refer to the phonemic level, he does not need to use the slanting lines to refer to phonemes. In fact they are often used to refer to the lowest level.

P.D. That is even more confusing.

K.G. It certainly is; in *PSRC* I sometimes used / / in this way myself .....

P.D. When it would have been better to use doubled slanting lines // //.

K.G. This, I suspect, has contributed towards Dr Williams' theoretical objections to ***Kernewek Kemmyn***. Like his "general objections", these are largely criticisms of its presentation rather than its structure.

P.D. Let's get back to the deviations from the phonemic principle. How does all this discussion of levels fit in ?

K.G. The orthography of ***Kernewek Kemmyn*** is in almost every respect a written representation of the phonological base, which is at the lowest level. Where there is a one-to-one correspondence between this, the morphophonemic level, and the phonemic level, the orthography is perfectly phonemic. Where there is a difference between the two levels, there is an apparent deviation from classical phonemic theory.

P.D. Can you give me an example ?

K.G. I have tabulated the principal examples in Fig. 23.2.

Cases where spelling depends on the underlying phonology *Fig. 23.2*

UNDERLYING PHONOLOGY	GRAPHEME IN ***KERNEWEK KEMMYN***	RECOMMENDED PRONUNCIATION
//mm,nn,ll,rr//	<mm,nn,ll,rr>	[mm,nn,ll,rr] in stressed syllables [m,n,l,r] in unstressed syllables
//i, y//	<i,y>	[i,y] in stressed syllables [ɪ,ɪ] in unstressed syllables
//o//	<oe>	[oː] when stressed and long [oˑ] when stressed and of mid-length [ɤ] when stressed and short [ɤ] when unstressed
//x//	<gh>	[x] finally [ɦ] medially

P.D. I see that you have used the doubled slanting lines for //nn// this time.

K.G. Because I wish to refer to the base-level, in which //nn// is invariant. At the phonemic level, it will appear as /nn/ if stressed, and /n/ if unstressed.

P.D. I'm beginning to see what you're driving at now. //nn// refers to the long *n* at the base-level.

K.G. Well, I'm pleased about that. These are important features of ***Kernewek Kemmyn***, which Dr Williams appears not to have understood at all. It may be partly my fault, since the presentation in *PSRC* was not as clear as it might have been. Anyway, we can use this theory to look in more detail at the representation of //mm, nn, ll, rr// in ***Kernewek Kemmyn***.

24 ***penn, alena* and *gwydhenn***

P.D. Julyan Holmes (1996) declares himself "completely baffled" by criticism C21:

> C21) Because Kernewek Kemmyn has half-length, which was absent from Middle Cornish, the system is compelled to geminate letters unhistorically in *mamm* 'mother', *gwann* 'weak', for example.

Can you make any sense of it ?

K.G. Not a lot. I find both this and his other observations about <mm> and <nn> quite extraordinary, as if he doesn't understand the reasoning behind the use of these graphemes.

P.D. Which other observations do you mean ?

K.G. In particular, his comment in *CT §13.34* concerning ***gwydhenn*** 'tree': "The geminate <nn> is to show that the final vowel is short". We also ought to examine his misguided notions about the word ***alena*** 'thence' in *CT §9.3.*

P.D. Before looking at these in detail, perhaps it would help if you reiterated the reasons for using <mm> and <nn> in ***mamm*** and ***gwann***.

K.G. As was clearly explained in *PSRC,* primarily to indicate the long or geminate consonant, /mm/ and /nn/ respectively. These words intrinsically contained long consonants, and any orthography which is worth its salt must show this.

P.D. The way that Dr Williams writes, one would think that you had invented these graphemes, or at least stolen them from Breton.

K.G. Despite what one hears from time to time, I am not in the business of "inventing" Cornish. The language contained the long consonants /mm/ and /nn/, and the best way of writing them is <mm> and <nn>. Whether or not these graphemes were used historically is irrelevant.

P.D. They certainly serve to distinguish pairs of words which are not distinguished in Unified Cornish, nor in UCR, such as ***henn*** 'that' and ***hen*** 'old'.

K.G. The graphemes also have two other secondary uses. Firstly, the graphemes <mm> and <nn> may be interpreted as [bm] and [dn] in stressed syllables by anyone who wishes to use [bm] and [dn] in their speech (though this is not the recommended pronunciation). Secondly, the fact that the consonant is doubled shows that the preceding vowel is short.

P.D. If stressed.

K.G. Yes, if stressed; unstressed vowels are automatically short whatever follows them.

P.D. Now that you made this clear, please could we try to understand Dr Williams' observations.

K.G. To understand them, we have to try to follow his contorted chain of argument. Reference to *CT §13.34* helps somewhat: ″If a vowel is followed by a single consonant, then it is long in monosyllables and half-long elsewhere″.

P.D. That looks correct to me.

K.G. Yes, that bit's all right, except that it would have been better to write "a stressed vowel" instead of ″a vowel″. But look at the preceding sentence: "Dr George, imitating Breton, wants every short vowel to be followed by a geminate consonant″. This is nonsense.

P.D. In what way ?

K.G. Firstly, it is the geminate consonants which dictate the nature of the preceding stressed vowels, not the other way round; secondly, in Breton, short vowels are not compulsorily followed by geminate consonants; lastly, and possibly most importantly, it is not what "Dr George wants″ which dictates the phonological rules in ***Kernewek Kemmyn*** but primarily what is innate in Cornish.

P.D. Would it be true, then, to say that Dr Williams is effectively accusing you of introducing non-historical graphemes into the orthography in order to satisfy the quantity rules, which according to him no longer applied after the prosodic shift took place allegedly *c.*1250 ?

K.G. That's the only interpretation which I can put upon it.

P.D. You mentioned also the remarks in *CT §9.3* concerning ***alena*** 'thence'.

K.G. Yes, I would like to look at these in detail. We need to remember that ***alena*** comes from ***a'n le na,*** which in turn is short for ***a an le ena;*** the <n> in Middle Cornish *ena* and *alena* stands for the short consonant /n/, and the preceding <e> stands for the mid-length vowel [ɛ·]. Nance spelled this word as *alenna,* which in my view is incorrect.

P.D. It's obvious to me, but please confirm why do you think that.

K.G. Because elsewhere Nance, like the mediaeval scribes, consistently differentiated medial /nn/ and /n/, by using <nn> for the former and <n> for the latter. As I wrote in *GLKK,* concerning ***alena***: "... the etymology indicates <n>, and if it had contained /nn/, it would have become **aledna* in Late Cornish". Dr Williams in *CT §9.3* has tried to defend Nance. His arguments reveal how much he has misinterpreted the evidence.

P.D. In what way ?

K.G. He writes: "Although the spelling <alenna> is not attested in Middle Cornish, it does occur in the later period". This is quite correct, as is shown clearly in Fig. 24.1. The reasons are:

(a) It is not attested in Middle Cornish because <nn> then meant /nn/, and ***alena*** does not contain /nn/;

(b) It is attested in Late Cornish because the stressed vowel, previously mid-length, had become short after the prosodic shift in the early 17th century.

Orthographic profile of /nn/ in *alena* 'thence' *Fig. 24.1*

Block -->	MC+	ORD	BSM	TH+	CW+	L17	EDL	L18
<n>	3	9	1	1	5	0	1	1
<nn>	0	0	0	0	0	1	0	1

P.D. But since Dr Williams believes that the prosodic shift took place *c.*1250, he must proffer some other explanation.

K.G. He continues: "<Alena> with a single <n> is not mere scribal conservatism. It is the customary spelling in Middle Cornish because scribes did not wish to write <nn> lest it be thought that /^{d}n/ were intended". This makes good sense too, except that I would write /nn/ instead of /^{d}n/, and comment that in Dr Williams' terms, this would apply only in his alleged "western dialect". Unfortunately Dr Williams' belief in an early date for the prosodic shift has prevented him from seeing the real significance of these statements.

P.D. Why do you think that ?

K.G. His next sentence is: "Nance was nonetheless justified in spelling the word <alenna> in order to emphasise that the stressed vowel was short". The point here is that in Middle Cornish, the stressed vowel was not short; it was of mid-length: only after the prosodic shift *c.*1625 did it become short. My criticism of Nance stands.

P.D. The same old story, I see; the dating of the prosodic shift.

K.G. It's a bit rich to suggest that I was confused between phonetic and orthographical considerations. What does he take me for ?

P.D. If his hypothesis is so different from your findings, it is not surprising that you are likely to be at cross-purposes.

K.G. Well, just to prove how off-beam Dr Williams' observations are on this subject, consider the following statement in *CT §13.34,* in respect of words like ***gwydhenn*** 'tree': "The geminate <nn> is to show that the final vowel is short". This is completely wrong. There is no need to show that the final syllable is short; we know that already, because the syllable is unstressed.

P.D. I can see that beginners find it very helpful to be told that all polysyllabic nouns ending in <-enn> are feminine; but I must ask why <-nn> appears in an unstressed syllable.

K.G. I explained this briefly in section 18.1 of *PSRC.* Perhaps I did not explain it clearly enough, because Dr Williams appears not to have understood it. He claims that:

C22) Kernewek Kemmyn is inconsistent with respect to the gemination of consonants: *kalann* 'Calends' but *lovan* 'rope', *blydhen* 'year' but *kribenn* 'comb'.

This is not true. The grapheme <nn> is used, not to show that the preceding vowel is short, but because the singulative suffix ***-enn*** intrinsically contains a long consonant.

P.D. Intrinsically ? Do you mean morphologically ?

K.G. Yes, morphologically, in the sense that ***-enn*** is a morpheme //-ɛnn//; and etymologically, too, because the suffix comes from British *-ennâ,* which contained a long or geminate /nn/.

P.D. But what's the point of writing the consonant as <nn> when it's pronounced [n], even if it comes from an etymological //nn// ?

K.G. Because if we consider the plural, ***gwydhennow*** 'individual trees'.....

P.D. As opposed to ***gwydh*** 'trees in general' ?

K.G. Exactly ..... in ***gwydhennow,*** the <nn> remains, but in this case, being stressed, it is really long.

P.D. What do you mean by "really long" ?

K.G. That it was pronounced throughout the Middle Cornish period as a long and probably geminate consonant, [nn], as compared with the short consonant [n]. From the mid-sixteenth century onwards, it would have been pronounced [dn]. Now, here's the important point.

P.D. At last !

K.G. In Unified Cornish, and in Dr Williams' UCR, nouns ending in //nn// and //n// are both written with <-n>, but their plurals are apparently formed differently; those in //nn// add <-ow> and those in //n// add <-now> or <-yow>. Now there is no way in which you can tell from the singular which plural applies. In ***Kernewek Kemmyn,*** on the other hand, the rules are both simpler and morphologically more correct: to ***-nn*** add ***-ow,*** to ***-n*** add ***-ow*** or ***-yow***.

P.D. In effect, in both Unified Cornish and UCR, plural nouns like *pennow* and *spernennow* 'individual thorns' are split in the wrong place: *pen-now, spernen-now,* instead of ***penn-ow*** and ***spernenn-ow***.

K.G. That's a much simpler way of putting it ! The price which we have to pay for this elegant arrangement is the doubling of consonants in a few loan-words from English, e.g. ***stopp***, ***lett***.

P.D. And vilification by Dr Williams.

K.G. We can withstand that.

25 ***rag*** or *rak* ?

P.D. I have been reading criticism C19, which is:

C19) Kernewek Kemmyn is unaware of the rule that *deg* 'ten', *gwreg* 'wife' always have final /g/ but *medhek* 'doctor' and *gowek* 'mendacious' always have /k/ and that the same voice/voicelessness operates with *b/p.*

What is this all about ?

K.G. It is concerned with the fact that the two phonemes /g/ and /k/ were neutralized in final position.

P.D. What does that mean ?

K.G. That one cannot find minimal pairs (at least in native words) which are distinguished by [-g] *v.* [-k].

P.D. What is the importance of this ?

K.G. It explains why the word meaning 'for' was sometimes spelled *rag* and sometimes *rak* in the Ordinalia. I pointed out years ago (George, 1984) that *rag* was favoured in *OM.,* and *rak* in *PC.* and *RD.*

P.D. In Nance's dictionary the word is written *rak(g).*

K.G. Yes; it looks as if he couldn't make up his mind which to use: he had the same type of problem with *map(b)* 'son'.

P.D. Why is the word spelled ***rag*** in ***Kernewek Kemmyn*** ?

K.G. I am now going to refer to the rather deep discussion we had about the phonological base (Section 23). Morphophonologically the word contains //g//, and application of the phonemic principle therefore requires <-g>.

P.D. Unified Cornish used <-k> in words like *dek* 'ten' .....

K.G. ..... with the result that learners tended to mispronounce *dek* as ['dɛk], i.e. as English *deck,* with a short instead of a long vowel. This error arose because, unlike in ***Kernewek Kemmyn****,* there is no way of determining the length of vowels in Unified spelling.

P.D. The same error could arise with learners of ***Kernewek Kemmyn*** if they were unaware of the rule that single consonants in stressed syllables are preceded by long vowels.

K.G. But the error would be less severe, because if you listen carefully, English short vowels before [-g] are actually longer than those before [-k]: compare *tag* and *tack.*

P.D. What about polysyllables containing //-g// ? They are spelled <-k> in ***Kernewek Kemmyn****,* which appears to be an infringement of the phonemic principle.

K.G. I admit to that. Strict application of the principle would spell the common adjectival ending as <-eg> instead of <-ek>. The neutralization of /g/ and /k/, however, allows us the luxury of choosing which grapheme we use, <g> or <k>; i.e. the luxury of ascending to the phonetic level in Fig. 23.1. In *PSRC section 6.5,* I proposed that <-k> be used in polysyllables, "in order to take account of the commonest realization, and to reduce the changes from the spelling at present in use" [i.e. Unified].

P.D. Let me recapitulate: for words which end in //g//, the spelling <-g> is used in monosyllables, and <-k> in polysyllables.

K.G. That is so; for example, ***teg*** 'fair' with <-g> but ***Kernewek*** 'Cornish' with <-k>. Similarly, //-b// is represented by <-b> in monosyllables and <-p> in polysyllables, e.g. ***glyb*** 'wet' with <-b> but ***gorthyp*** 'reply' with <-p>.

P.D. Forgive me for appearing obtuse, but isn't that exactly the rule that Dr Williams claims ***Kernewek Kemmyn*** is unaware of, in C19 ?

K.G. It is the same rule; it applies to both ***Kernewek Kemmyn*** and to UCR.

P.D. Then what is the problem ?

K.G. The word "always": Dr Williams believes that //-g// was pronounced [-g] in monosyllables and [-k] in polysyllables in all phonetic environments, whereas I think it more likely that the pronunciation depended on the following sounds.

P.D. Is that important ?

K.G. Not in my view; it's a phonetic problem, and one which cannot be fully solved in the absence of traditional Cornish speakers.

P.D. Then let's leave it. By my reckoning, we have now dealt with all twenty-six criticisms listed in Fig. 1.1; but what about the further criticisms in the appendix to *Cornish Today* ?

K.G. As I said in our first discussion, I agree with some of his conclusions, and will incorporate them when a new edition of *GLKK* goes to print.

P.D. Can you say which ones ?

K.G. I am not going to discuss every one. I can go along with his observations on ***heveli*** and the word for 'grandson', and with his idea that the word for 'to fly' contained a diphthong.

P.D. But not his ideas about ***Yowann*** ?

K.G. Not completely; although /j-/ in names like ***Yowann*** may have been replaced by /ʤ-/ in most cases, there is evidence of the change [j] > [ʤ] in the place-name *Skewjack* (Sennen), which was recorded as *Skewyeck* in 1309.

P.D. And *Venton Jean* in Madron is generally reckoned as being ***fenten yeyn*** 'cold spring'.

K.G. I live two miles from a farm named *Treyone,* which was spelled *Treyowan* in 1304 (obviously ***tre Yowann*** 'John's farm'), and *Trezhowan* in 1318. The <zh> here looks like some kind of palatalization.

P.D. Isn't this name pronounced with [j] today ?

K.G. Yes.

P.D. But according to Dr Williams *(CT §11.15),* Cornish was spoken in this area into the sixteenth century. Why was [j-] not then replaced by [ʤ-] ?

K.G. We would all like Cornish to have been spoken in east Cornwall for much longer than it was, but Dr Williams has allowed his wishful thinking to run away with him. So far as we can tell, Cornish died out in St Germans parish, where Treyone is, in the fourteenth century. If the spelling *Trezhowan* does indicate the replacement of [j-] by [ʤ-], then the change did not last, because the original [j-] prevailed in the mouths of English speakers.

P.D. How can you be so sure that Cornish was not spoken in east Cornwall into the sixteenth century ?

K.G. By studying which language was used to name the parts of a settlement which had been divided into parts. In the Cornish-speaking areas, epithets such as *Wartha* 'upper' and *Wollas* 'lower' were commonly used, whereas in the English-speaking areas, *Over-* and *Nether-,* with the same meanings, were later replaced by *Upper* and *Lower.* In Fig. 25.1, I have plotted the positions of divided settlements in which the names for the separate parts first appeared before 1550, and used different shapes, according to whether the original names and the names for the divisions were in Cornish or in English.

P.D. The line AA acts as a fairly clear division on the map.

K.G. Yes; to the east of the line AA, English was used to name the parts of settlements, even those with Cornish names, in over 95% of the cases, during the period 1250 to 1550. This shows that English was spoken by those responsible for giving names to the separate parts. It suggests that the Cornish speakers east of the line AA in the Middle Ages were very much in the minority.

P.D. That looks very convincing. While we are tidying up loose ends, as it were, perhaps we ought to consider Dr Williams' article in *Cornish Studies* (Williams, 1996b).

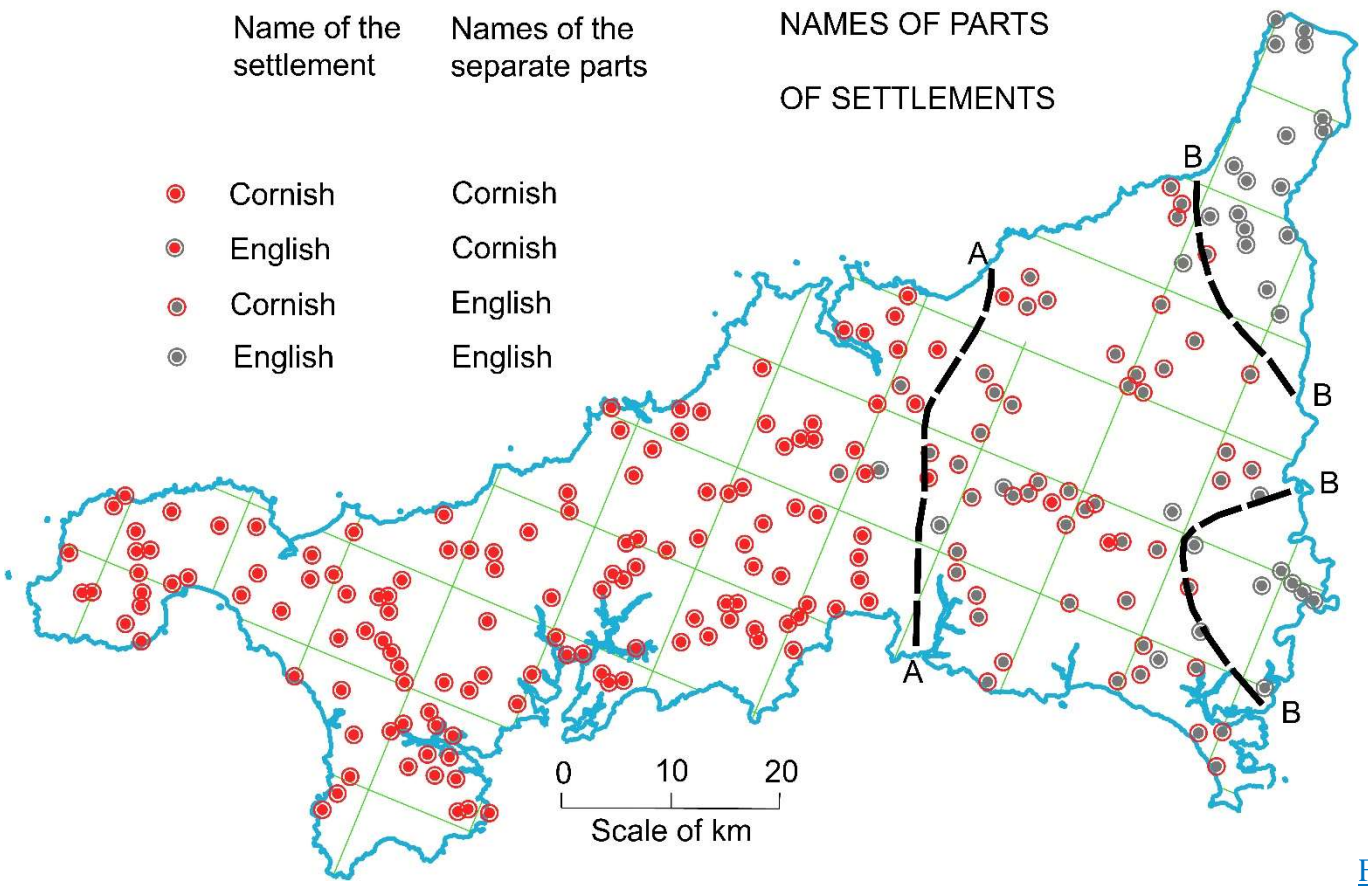


Fig. 25.1
This map has been redrawn for the second edition of the book.

K.G. It is a condensation of those parts of *Cornish Today* which are concerned with criticizing ***Kernewek Kemmyn***.

P.D. Nothing new in it ?

K.G. Not much. Same old stuff, really. Philip Payton notes that *"Cornish Studies* is a fully refereed series", but the referees of Dr Williams' paper failed to realize that most of his ideas on Cornish phonology are dubious if not just plain wrong.

P.D. *Quis custodiat ipsos custodes ?*

K.G. The funniest bit of the article is the section entitled "The origins of the errors in Kernewek Kemmyn".

P.D. Why is that ?

K.G. Because Dr Williams is trying to find reasons for errors which, for the most part, do not exist. He quotes the Celtic scholar Joseph Loth (1897), who thought that the separation of Middle Cornish from Breton was less than the separation of the Leoneg and Gwenedeg dialects of Breton, and then writes:

> "It is quite clear that Loth's view has been an important influence on George's thinking, and therefore on Kernewek Kemmyn".

This is laughable.

P.D. Why ?

K.G. Because before writing *PSRC,* I was fascinated by just this question: is Cornish so close to Breton that one could consider it as a fifth dialect of Breton ? In order to answer the question, I developed some numerical dialectology, and discovered that the phonological distance of Cornish from any one dialect of Breton is greater than the phonological distance between any two of the four conventional Breton dialects.

P.D. So Loth was incorrect ?

K.G. Yes. His ideas had no influence on my thinking whatsoever. I do not operate like that. Had Dr Williams read my paper on this subject (George, 1985) [1], he would not have made such ridiculous suppositions.

P.D. A classic case of "shooting oneself in the foot" !

[1] This paper was written in French. An English version is available at: https://cornishlanguage.info/CorLing/phon/5DB.pdf.

26 Comparison of spelling systems

P.D. In *CT §13.38,* Dr Williams presents two verses from *Pascon agan Arluth* in three different orthographies (reproduced in Fig. 26.1), and invites the readers to judge whether Unified Cornish or ***Kernewek Kemmyn*** "looks the more authentic".

Text from Middle Cornish *Fig. 26.1*

Camen pylat pan welas
ma nan geffo ef sor bras
rag henna ef a iuggyas
the ves y a thelyffras

Pan o Ihesus cryst dempnys
haccra mernans byth ordnys
en grows whath nyn io parys
an prennyer py fens kefys

na ylly crist delyffre
ȝeworth ol an goweȝe
Ihesus ȝeȝe ȝy laȝe
barabas quyth mayȝ elle

aberth yn crows may farwe
ȝe greatur ny vye
nan eȝewon ny woȝye
ȝe wuȝyll crous aneȝe

Text in Unified Cornish

Cammen Pylat pan welas
ma na'n jevo ef sor bras
rag henna ef a jujjyas
dhe ves y a dhelyfras

Pan o Jhesus Cryst dempnys
haccra mernans byth ordnys
an grows whath nyns o parys,
an prenyer py fens kefys

na ylly Cryst delyfra
dhyworth oll an gowetha
Jhesus dhedha dh'y ladha
Barabas quyt mayth ella.

aberth yn crows may farwa -
dhe greatur ny vya
na'n Edhewon ny wodhya
dhe wuthyl crows anedha.

Text in ***Kernewek Kemmyn***

Kammen Pilat pan welas
ma na'n jevo ev sorr bras
rak henna ev a jujyas
dhe-ves i a dhelivras

Pan o Yesus Krist dempnys
hakkra mernans bydh ord'nys
an grows hwath nyns o parys,
an prennyer py fens kevys

na ylli Krist delivra
dhiworth oll an gowetha
Yesus dhedha dh'y ladha
Barabas kwit mayth ella.

a-berth yn krows may farwa,
dhe greatur ny via
na'n Yedhewon ny wodhya
dhe wuthyl krows anedha.

K.G. The invitation is not very subtle. He sets up his own rules: "Authenticity is the overriding criterion"; and since Unified Cornish is manifestly closer to the original text, the implication is that it is in some way superior to ***Kernewek Kemmyn***.

P.D. How does UCR compare with Unified ?

K.G. I am most grateful to Dr Williams for supplying me with a copy of the same two stanzas in UCR (Fig. 26.2):

Text in Unified Cornish Revised *Fig. 26.2*

Cammen Pylat pan welas	na ylly Cryst delyvra
ma na'n jeffa ef sor bras	dheworth oll an gowetha
rag henna ef a jujyas	Jesus dhedha dh'y ladha
dhe ves y a dhelyvras	Barabas quyt mayth ella.
Pan o Jesus Cryst dampnys	abarth y'n grows may farwa
haccra mernans byth ordnys	dhe greatur ny vya.
An grows whath nynj o parys	na an Edhewon ny wodhya
an prennyer py fons kefys	dhe wuthyl crows anedha.

P.D. It is not so obvious how close this is to the original text. How are we to measure its performance ?

K.G. It is quite possible to quantify the comparison. We just split the text up into its phonemes, and consider the graphemes for each one in turn. Take the second part of the first line, for instance:

MidC	n	a	y	ll	y	c	r	i	s	t	d	e	l	y	ff	r	e
Unified	n	a	y	ll	y	C	r	y	s	t	d	e	l	y	ff	r	a
Differences								1									1

There are two differences between Unified and the original text in this half-line.

P.D. No doubt you can do the same for UCR:

K.G. No problem: there are three differences this time.

MidC	n	a	y	ll	y	c	r	i	s	t	d	e	l	y	ff	r	e
UCR	n	a	y	ll	y	C	r	y	s	t	d	e	l	y	v	r	a
Differences								1							1		1

P.D. So do you just carry out the same exercise for the whole passage ?

K.G. Yes, with the following results:

	NO. OF DIFFERENCES FROM MIDDLE CORNISH	NO. OF DIFFERENCES PER 100 PHONEMES	SCORE (%)
Unified	42	15	85
UCR	42	15	85
Kernewek Kemmyn	65	23	77

P.D. Interesting ! UCR is no closer to the original text than Unified. Does this mean that since authenticity ″ought to be the sole criterion″, the whole exercise of devising UCR was a waste of time ?

K.G. No, it shows that there are other criteria, besides authenticity, by which spelling systems ought be be judged.

P.D. Can we look at the differences in more detail, and explain why there are more for ***Kernewek Kemmyn*** than for the other two ?

K.G. The short answer is that ***Kernewek Kemmyn*** is optimized, or nearly so, to clarify morphophonemic differences, whereas Unified and UCR are intended to be regularized forms of the "systems" used in the Ordinalia and *BM./TH./CW.* respectively.

P.D. I notice that the extract is from *Pascon Agan Arluth,* however. Is it possible to determine how many of the differences are attributable to the fact that this text is different from the reference texts ?

K.G. Yes, with the aid of the Standard Middle Cornish orthography (SMidCor-C) which we talked about earlier (Section 22).

P.D. I was wondering when we would return to that. Please remind me what it is.

K.G. It is a regularized orthography which uses the commonest Middle Cornish grapheme for each phoneme, taking into account the environment; e.g. <k> for /k/ before <e,i,y>, <c> for /k/ before <a,o,u,l,r>. It eliminates fault F1 (i.e. scribal errors, variations within a text, and variations from text to text.

P.D. Can all this be quantified ?

K.G. yes, but first we need the text in SmidCor-C (Fig. 26.3):

Text in "SMidCor-C" *Fig. 26.3*

Cammen Pylat pan welas
ma na'n gevo ef sor bras
rag henna ef a iuggyas
the ves y a thelyffras

Pan o Jesus Cryst dempnys
hackra mernans byth ordnys
an grows whath nyns o parys
an prennyer py fens kefys

na ylly Cryst delyffre
thyworth oll an gowethe
Jesus thethe th'y lathe
Barabas quyt mayth elle

aberth yn crows may farwe
the greatur ny vye
na'n Ethewon ny wothye
the wuthyl crows anethe

K.G. There are 23 differences from the original text, (or 8 per 100 phonemes); they are classified in Fig. 26.4. This means that SMidCor-C scores 92% when compared with the original text, which makes it a good deal more "authentic" than UCR.

Differences between original text and "SMidCor-C" *Fig. 26.4*

ORIGINAL TEXT	SMidCor-C	NO. OF CASES	REMARKS
Orthographic variation within the text			
<ou>	<ow>	1	for /ɔw/
Orthographic variations from text to text			
<ȝ>	<th>	11	for /ð/
<ȝ>	<th>	2	for /θ/
<ff>	<v>	1	for /-v-/
<cc>	<ck>	1	
<l>	<ll>	1	for /-ll/
<m>	<mm>	1	for /-mm-/
<Ih>	<J>	2	<Ih> is used *"pour la belle escripture"*
Orthographical and phonological variations from text to text			
<en> 'the'	<an>	1	*en* is an older form
nyn io	*nyns o*	1	
Scribal errors			
<th>	<t>	1	for /-t/

P.D. This is very detailed ! Are you sure about "scribal errors" ? Dr Williams wouldn't like that at all !

K.G. We always have to be on our guard that an apparent error might indicate a hitherto unrecognized phonological development. In this case, writing *quyth* instead of the expected *quyt* has been interpreted as an error, but it might have been a phonological variant.

P.D. The fact that you have alluded to phonological variations means that you must have considered the pronunciation as well as the spelling.

K.G. Yes, the job of rationalizing the spelling cannot be done without reference to the pronunciation. In Fig. 26.5, I have set out the phonemic representation of the original text.

P.D. As you interpret it.

K.G. Yes, as I interpret it, after a profound study of the subject.

Phonemic representation of Middle Cornish text	*Fig. 26.5*	(edited)
/kammɛn pilat pan wɛlas	na ɪlli krist dɛlivrɛ/	
/ma nan ʤevɔ ɛv sɔrr bras	ðwɔrθ ɔll an gɔwɛθɛ/	
/rak hɛnna ɛv a ʤyʤas	ʤɛsys ðɛðɛ ðɪ laðɛ/	
/ðə vɛs i a ðɛlivras	barabas kwit maɪð ɛllɛ/	
/pan ɔ ʤɛsys krist dɛmpnɪz	abɛrθ ɪn krɔʊs maɪ farwɛ/	
/hakkra mɛrnanz bɪð ɔrdnɪz	ðə grɛatyr nɪ viɛ/	
/ɛn grɔʊs hwaθ nɪnʤɔ parɪz	nan ɛðɛwɔn nɪ wɔðjɛ/	
/an prɛnnjɛr pɪ fɛnz kɛvz	ðə wyðɪl krɔʊs anɛðɛ/	

P.D. I am sorry to go on, but there must be an element of doubt about this phonemic representation.

K.G. This is a problem faced by anyone trying to revive Cornish. When faced with doubtful items, the philosophy adopted by ***Kernewek Kemmyn*** is quite different from that proposed for UCR.

Kernewek Kemmyn defaults to:
maximum number of phonemes --> minimum number of homographs
minimum number of variant spellings

UCR defaults to:
minimum number of phonemes --> maximum number of homographs
maximum number of variant spellings

P.D. Should Dr Williams not be advocating SMidCor-C instead of UCR, seeing that it is more "authentic" ?

K.G. Perhaps he should. The problem is that he has chosen to incorporate in UCR principles other than that of "authenticity", even though that is his paramount criterion.

P.D. Such as ?

K.G. The resolution of ambiguities. We are therefore justified in quantifying the various orthographies according to how ambiguous they are.

P.D. How can you do that ?

K.G. We first need to draw up a table (Fig. 26.6) which lists the ambiguities in the orthography.

Potentially ambiguous graphemes in various orthographies *Fig. 26.6*

	Middle Cornish	SMidCor-C	SMidCor-P	Unified	UCR	***Kernewek Kemmyn***	
<ay>	/a, ai/						
<c>	/k, s/	/k, s/		/k, s/	/k, s/		
<e>	/ɪ, ɛ/				/ɛ, ɪ/		
<eu>	/œ, ɛw/						
<ew>	/ɛw, ɪw/	/ɛw, ɪw/	/ɛw, ɪw/	/ɛw, ɪw/	/ɛw, ɪw/		
<ey>	/eɪ, aɪ, ɛ, ɪ/	/eɪ, aɪ/					
<f>	/f, v/	/f, v/		/f, v/	/f, v/		
<ff>	/ff, v/						
<g>	/ʤ, g/	/ʤ, g/					
<gh>	/x, xx/	/x, xx/	/x, xx/	/x, xx/	/x, xx/		
<i>	/i, ɪ, ʤ, j/						
<j>	/ʤ, ɪ/						
<l>	/l, ll/	/l, ll/		/l, ll/	/l, ll/		
<ll>	/ll, l/						
<m>	/m, mm/	/m, mm/		/m, mm/	/m, mm/		
<mm>	/mm, m/						
<n>	/nn, n/	/n, nn/		/n, nn/	/n, nn/		
<o>	/ɔ, o/	/ɔ, o/		/ɔ, o/	/ɔ, o/		
<ou>	/u, ɔw/						
<ov>	/ɔw, u/						
<oy>	/ɔɪ, ɔ, o/		/ɔɪ, o/				
<r>	/r, rr/	/r, rr/		/r, rr/	/r, rr/		
<s>	/s, ss, z/	/s, z/	/s, z/	/s, z/	/s, z/		/s, z/
<ss>	/ss, s/						
<th>	/θ, θθ, ð/	/θ, θθ, ð/	/θ, θθ/	/θ, θθ, ð/	/θ, θθ/		
<u>	/y, œ, ɪw, v/	/y, œ/		/y, œ, u/			
<y>	/i,ɪ,ɛ,eɪ,j/	/i, ɪ, j/	/ɪ, j/	/i, ɪ, j/	/i, ɪ, j/		/ɪ, j/
<yw>	/iw, ɛw/						
<ʒ>	/θ, θθ, ð, j/						

N.B. The list for Middle Cornish is not exhaustive.

P.D. I would expect ***Kernewek Kemmyn*** to be the least ambiguous, since it's nearly phonemic, but I notice from Fig. 26.6 that SMidCor-P has few ambiguities, fewer than UCR. Please could you remind me what it is.

K.G. SMidCor-P is a Standard Middle Cornish, tuned so as to be as phonemic as possible, while still retaining graphemes used in the texts (Fig. 26.7).

Text in "SMidCor-P"	*Fig. 26.7*
Cammen Pylat pan welas	na ylli Cryst delivre
ma na'n jevo ev sorr bras	diworth oll an gowethe
rag henna ev a jujyas	Jesus ȝeȝe ȝ'y laȝe
ȝe ves i a dhelivras	Barabas quit mayȝ elle
Pan o Jesus Cryst dempnys	aberth yn crows mar farwe
hackra mernans byȝ ordnys	the greatur ny vie
an grows whath nyns o parys	na'n Eȝewonnyworȝye
an prennyer py fens kevys	ȝe wuthyl crows aneȝe

P.D. How can you use Fig. 26.6 to quantify the ambiguities ?

K.G. It can be done roughly by looking at every grapheme in the two stanzas from *MC.,* and assigning to each one a weight equal to the number of possible phonemes which it might represent. Then if we add up the weights for all the graphemes, the text with the least weights is the least ambiguous, and the most phonemic.

P.D. Why is that a rough procedure ?

K.G. Because it takes no account of the frequency of the multiple phonemes which may be represented by each grapheme. There are 277 graphemes in the passage; a perfectly phonemic orthography would have a total weight of 277; if an orthography has a total weight of *N,* then we can express its phonemicity in percentage terms as 100(277/*N).*

P.D. I can see an objection to this. You say that <y> is ambiguous in ***Kernewek Kemmyn****,* because it could stand for /ɪ/ or for /j/; yet is quite easy to distinguish which is meant from the context. If <y> is followed by a vowel, as in ***yar*** 'hen', it means /j/; if followed by a consonant, as in ***ytho*** 'then', it means /ɪ/. Should you not take account of this ?

K.G. You are quite right. These ambiguities apply to individual graphemes, and many of them could be resolved when put in context. For this reason, I have examined the various orthographies from two standpoints; that of potential ambiguities on the basis of individual graphemes, (which indicates how phonemic the spelling is), and that of real ambiguities which cannot be resolved, even when taking the context into account.

P.D. What are the results ?

K.G. They are given in Fig. 26.8. ***Kernewek Kemmyn*** and SMidCor-P are way ahead of the field. UCR is no significant improvement on Unified.

Results of quantitative comparisons of orthographies *Fig. 26.8*

	How phonemic is the text ?		***How unambiguous is the text ?***	
	INDIVIDUAL AMBIGUITIES		REAL AMBIGUITIES	
	WEIGHT *N*	%AGE SCORE	NUMBER	%AGE SCORE
Middle Cornish	621	45	74	79
SMidCor-C	475	58	67	81
Unified Cornish	446	62	58	83
UCR	457	61	51	84
SMidCor-P	324	85	23	93
Kernewek Kemmyn	318	87	23	93

P.D. Although ***Kernewek Kemmyn*** is demonstrably the least ambiguous and the most phonemic orthography, it does not score 100% on either count. Is there any way of increasing its score ?

K.G. The 23 real ambiguities in ***Kernewek Kemmyn*** all arise because of its failure to distinguish between /s/ and /z/. This failure is shared by all other systems (except that of Lhuyd). If <z> were introduced to represent /z/, then the score for ***Kernewek Kemmyn*** would approach 100%.

P.D. What are the implications of this ?

K.G. It would remove ***Kernewek Kemmyn*** even further from the mediaeval spelling, though that is not in my view grounds for objection. For example, *cos* 'wood' would appear as ***koez***.

P.D. As it does in Tim Saunders' spelling, I believe. But even without <z>, the performance of ***Kernewek Kemmyn*** is remarkable.

K.G. What is more, it possesses a most useful property which the other orthographies lack, either wholly or in part.

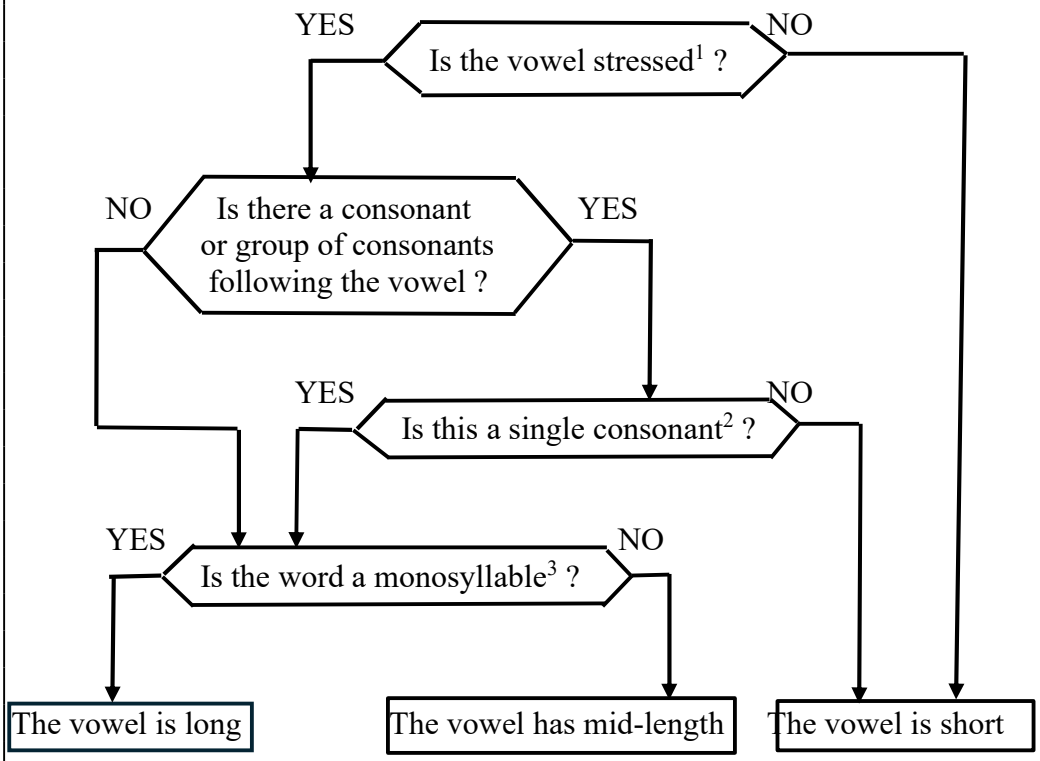
P.D. What might that be ?

K.G. In almost all cases, it is possible to determine the length of vowels in ***Kernewek Kemmyn*** from the spelling, by application of the quantity rules. For those who like flow diagrams, I have shown how this may be done in Fig. 26.9. For example, we know that the vowel in ***lenn*** 'cloth' is short, because it is followed by two consonants, whereas that in ***len*** 'faithful' is long, because it is followed by only one.

P.D. That doesn't work in Unified Cornish.

Fig.26.9

How to determine the length of vowels from the spelling of *Kernewek Kemmyn*



NOTES

1 Stress is not usually indicated by the spelling.

2 The consonantal group /st/, and the group /❷n/ before a dental consonant, behave in this respect as if they were a single consonant.

3 This applies also to words with stress on the last syllable, such as ***yma*** ‘there is, there are’ and ***ynwedh*** ‘also’.

K.G. Nor in UCR; the student using these has to learn whether vowels are long or short separately for each individual word, having looked them up in Nance’s dictionary, where the long vowels are indicated by an overbar (or macron).

P.D. That is a great weakness.

K.G. Dr Williams' argument that this "cannot be remedied without doing violence to the spelling of the texts" *(CT §17.4)* is absurd. So long as he is hide-bound by a perceived, but quite unnecessary, need to stick as closely as possible to the spelling of the texts, his orthography will remain inferior to that of ***Kernewek Kemmyn***. He is fighting with one hand tied behind his back.

P.D. His orthography is lamentable, an absolute non-starter in comparison with ***Kernewek Kemmyn***: we have only to look at his "gwyn gwyn", intended to represent ['gwiːn 'gwɪnn] 'white wine', to see that.

K.G. That sums it up neatly.

P.D. In short, he is constantly backward-looking, and thereby stuck in the sixteenth century, whereas you are a realist with vision, looking forward to the twenty-first.

K.G. I will take that as a compliment.

27 Concluding remarks

P.D. In our first discussion (Section 1), we looked at the 26 points of criticism which Dr Williams made concerning ***Kernewek Kemmyn***. Can you now summarize your findings about these ?

K.G. They are laid out in Fig. 27.1, together with the sections in which we discussed them.

Dr Williams' criticisms of *Kernewek Kemmyn* *Fig. 27.1*

	ALLEGED DEVELOPMENTS	REMARKS	SECTION
C1)	Loss of ½ long vowels	they continued until *c.*1625	4
C2)	Fusion of /ɪː/ and /eː/	occurred *c.*1625	6
C3)	Fusion of /ɔː/ and /oː/	did not occur	5
C4)	/-iː/ > /-ej/	occurred much later than *c.*1250	9
C5)	Fusion of /ej/and /aj/	did not occur	20
C6)	Fusion of /ow/ and /aw/	did not occur	19
C7)	/-yː/ > /-ɪw/	this did occur	17
C8)	Stressed /i/ > /ɪ/ or /e/	did not occur	16
C9)	Pronunciation of /aː/	*not proven*	8
C10)	Alternation *y* ~ *e*	*misinterpreted by NJAW*	16
C11)	Fusion of /iw/, /ɪw/, /ew/	*not proven*	17
C12)	Alternation of *yw* ~ *ew*	*misinterpreted by NJAW*	17
C13)	Unstressed vowels > schwa	*exaggerated and mis-timed by NJAW*	14, 15
C14)	/mɪː/ and /tɪː/	certainly existed	9
C15)	/ðiz/ and /ðiːz/	2 forms did not exist	7
C16)	***deghow*** 'right'	*not admitted by KJG*	1
C17)	Geminate consonants	did exist	11
C18)	Voiceless sonants	*misinterpreted by NJAW*	11
C19)	Final consonants	*not proven*	25
C20)	<k> before back vowels	*not an error*	21
C21)	<-mm> and <-nn>	*not an error*	24
C22)	<-n> and <-nn>	*misunderstood by NJAW*	24
C23)	<oe> used for /ɔ-☜/	*very rare*	1
C24)	<sh> used for /s-h/	*very rare*	1
C25)	Etymologies faulty	*exaggerated by NJAW*	1
C26)	Defective database	*exaggerated by NJAW*	1

P.D. It seems to me that you are being unnecessarily fussy in your remarks. Why not just say that most of the criticisms are wrong ?

K.G. Natural caution, I suppose. You will have noticed that Dr Williams precedes practically all of his statements by "It appears that ... ", "It seems that ...", etc. He will now have to fall back on these caveats.

P.D. It won't stop him losing face.

K.G. It is also worth looking at the cumulative evidence for the prosodic shift (Fig. 27.2), even though this overlaps the material in Fig. 27.1. In *CT §12.1,* Dr Williams writes: "Taken together, they seem to me to represent a very strong body of evidence".

Dr Williams' evidence for the prosodic shift *Fig. 27.2*

	DEVELOPMENTS		REMARKS
1)	spellings like *dadder*	C1	rare exceptions
2)	/iː/ > /ej/	C4	occurred much later than *c.*1250
3)	/uː/ > /ew/	--	*withdrawn by NJAW*
4)	/yː/ > /ɪw/	C7	this did occur
5)	/kuːn/ > /kœːn/	--	so did this, but it's just one word
6)	Fusion of /ɪː/ and /eː/	C2	occurred *c.*1650
7)	Fusion of /ɔː/ and /oː/	C3	did not occur
8)	/i/ > /ɪ/ or /e/	C8	did not occur
9)	Fusion of /iw/,/ɪw/, /☜w/	C11	*not proven*
10)	Fusion of /ej/ and /aj/	C5	*not proven*
11)	/ew/ > /ow/	C12	dated *c.*1525, may not be real
12)	/ow/ > /aw/	C6	did not occur
13)	Unstressed vowels > schwa	C13	*exaggerated and mis-timed*
14)	Unstressed /i/ > /ɪ/	--	this did occur
15)	[-ˈVg] *v.* [-Vk]	C19	*not proven*
16)	/e>a/ in eastern Cornish	--	eastern Cornish did not exist
17)	pre-occlusion in western Cornish	--	western Cornish did not exist

P.D. Does this refer to the outer loop in Fig. 4.2 ?

K.G. Yes. Now, Fig. 27.2 shows that, of the seventeen items, only three (numbers 4, 5 and 14) appear to have taken place at about the time of the alleged prosodic shift, i.e. *c.*1250. The others are either false, unproven, or occurred at a much later date. The body of "evidence" is worthless.

P.D. Supporters of Unified Cornish, after reading *Cornish Todaay,* might be regretting that Dr Williams' ideas were not adopted ten years ago, before ***Kernewek Kemmyn*** was introduced.

K.G. Let's just follow that flight of fancy for a moment. Suppose that ***Kernewek Kemmyn*** had never been devised, and that Dr Williams had proposed UCR as a minimal set of improvements to Unified Cornish.

P.D. Would it have been adopted as the new standard for Revived Cornish ?

K.G. I have my doubts. The Cornish Language Board did not adopt ***Kernewek Kemmyn*** without a great deal of scrutiny, and they might not have accepted UCR. It lacks ***Kernewek Kemmyn'***s appeal of being easier to learn.

P.D. Let us suppose, neverthless, that speakers were taken in by Dr Williams' persuasive package of phonological piffle. I have no wish to insult our readers' intelligence, but I suggest that many speakers would have taken the package as read, without investigating it in detail, coming from from a professional Celticist.

K.G. That seems likely enough.

P.D. Then, after some years, you, or some other Celtic scholar, would have investigated UCR in detail, and discovered that it was based largely on misconceptions. Just imagine what a mess the Cornish language movement would be in, on making this discovery !

K.G. Dr Williams thinks that this is just what has happened, but with ***Kernewek Kemmyn*** instead of UCR. It evidently irks him constantly to think that the form of Cornish used by the majority of speakers is, in his view, "very unsatisfactory". This explains his hostility to ***Kernewek Kemmyn,*** but does not excuse the intemperance with which he has sometimes prosecuted his campaign against it.

P.D. Now that you have shown that ***Kernewek Kemmyn*** is not unsatisfactory, his mind may be set at rest.

K.G. We shall have to wait and see.

P.D. In our first talk, you suggested that the time we have taken could have been better spent on some other aspect of Cornish.

K.G. I would certainly like to publish my translation of *The Magic Flute.*

P.D. Has the exercise been a waste of time, then ?

K.G. Some good has come out of it: firstly, it has stimulated further research into traditional Cornish, which might not otherwise have been done; secondly, it has provided an opportunity to check the basis of ***Kernewek Kemmyn***.

P.D. Have Dr Williams' researches produced any sound evidence at all that would indicate a need for changes to ***Kernewek Kemmyn*** ?

K.G. Hardly anything. There seems to be very little wrong with its structure, but a few words have been incorrectly spelled.

P.D. Why is that ?

K.G. Because it was not always possible to identify correctly all of their constituent phonemes.

P.D. Please can you produce a list of these words ?

K.G. Many of them have been referred to in our discussions; please refer to Fig. 27.3.

Words in *Kernewek Kemmyn* which ought to be re-spelled *Fig. 27.3*

SPELLING IN *GLKK* (1993)	IMPROVED SPELLING	REMARKS
tryga 'to dwell'	***triga***	<y> identified as /ɪ/ instead of /i/
pryson 'prison'	***prison***	ditto
pryv 'reptile'	***prev***	/ɪ/ > /ɛ/ early, as in ***krev***
toth 'speed'	***toeth***	<o> identified as /ɔ/ instead of /o/
terros 'destruction'	***terroes***	ditto
trelya 'to turn'	***treylya***	Contains /ei/ rather than /ɛ/
nija 'to fly'	***neyja***	<y> identified as /i/ rather than /ei/
plu 'parish'	***plyw***	<u> identified as /u/ instead of /ɪw/
gyw 'spear'	***gu***	<yw> identified as /ɪw/ instead of /u/

P.D. I presume that the improved spellings would be included in a new edition of *GLKK.*

K.G. That is the intention.

P.D. What about Dr Williams' predictions of the demise of ***Kernewek Kemmyn*** ?

K.G. Premature, to say the least; ***Kernewek Kemmyn*** has an assured future as the Cornish of the twenty-first century.

P.D. Can we be so sure of Dr Williams' reputation as a lecturer in Celtic studies ?

K.G. It would be improper for us to speculate on that. I will say that, so far as his hypotheses about Cornish are concerned, his credibility is tending to zero.

P.D. If you ask me, on balance, it's already negative. Is there anything more to be said ?

K.G. Just a list of conclusions (Fig. 27.4), and my thanks for your co-operation in these discussions. ***Gonn meur ras dhis***.

P.D. ***Ha meur ras dhis, ynwedh***.

Fig. 27.4

Conclusions **(for those who may not wish to read the whole book)**

1. ***Kernewek Kemmyn*** rules (are) O.K.

2. The spelling of a few words is wrong and needs to be corrected.

3. Serious consideration should be given to using <z> for /z/.

28 ***Ger warlergh*** by Paul Dunbar

I feel that it should be made clear that the need for technical accuracy of content has meant that by far the lion's share of reporting our discourses has been Ken's responsibility. My part was threefold: to act as interlocutor, to give continuous feedback and to read the proofs. We wished thereby to ensure that Ken's explanations would not go over the heads of all save expert phonologists; a consideration which has added to the length of the work.

Have we, with *"**Kernewek Kemmyn*** - Cornish for the 21st Century", achieved our aim to produce a work which was both learned and accessible ?

I believe, and hope, that we have. To be sure, the less one knows about Cornish or linguistics, the more slowly and gently one will have to proceed. Some aspects of the topics which have to be dealt with take a deal of thought and perseverance to grasp - even, it seems, for expert phoneticians.

To those who find the subject daunting I would say - persist. The book is worth the candle.

To those with little Cornish, as well as Cornish speakers like myself who know little of phonological theory - and one can, as I stated in my foreword, be extremely fluent in a language and yet have little or no theoretical understanding of it - it may be that a broad and approximate understanding of much of Ken's work is as much as can be achieved, at least initially. The subject is - it bears repeating - by no means an easy one. However, a broad understanding should help to reassure and to dispel some of the doubt and confusion which has occurred, and has even, I am sorry to say, been fostered in some quarters.

Kernewek Kemmyn is the preferred spelling system of almost all fluent Cornish speakers. To anyone wishing to carp about this, but who is not willing or able to work their objections into a reasoned argument, I can only suggest origami as an alternative pursuit.

While intended primarily to serve the Cornish language movement, no doubt scholars and academics will find this rather novel presentation of Ken's latest research a valuable contribution to the corpus of works on Cornish. Who knows ? It may set a trend.

For academics, though they may be reluctant to admit it, are as subject to fashion as everyone else. The Cornish language illustrates this very well. At one time only the historical language - safely and conveniently "dead", or so it seemed - was thought worthy of serious study. Indeed, in the earlier days of the revival, disapproval, academic and otherwise, was rife. Reviving languages was clearly held to be an indecent and unnatural act, a threat to the natural order of things, unpatriotic and probably seditious. A whiff of this remains today - there are still one or two, who, with rheumy eyes, glare disapproval from cobwebbed corners.

Today the Cornish revival, linguistic, cultural and political, is gaining more and more momentum and academic attention. As the number of Cornish speakers continues to grow, both the revival and the revived language itself are being increasingly acknowledged as important, remarkable, exciting phenomena and a "keenly lode" for dissertations and theses. Each year sees an increasing number of students and academics arrive in Cornwall from the corners of the globe, later to depart loaded with tape-recordings and full notebooks.

I am sure that anyone interested in Cornish today, including professional Celticists, will find much in *"**Kernewek Kemmyn*** - Cornish for the 21st Century" to occupy their thoughts.

Paul A R Dunbar

A1 Orthographic profiles by Ken George

An **orthographic profile** is a table showing the frequency of use of different graphemes in texts or blocks of text. Two slightly different forms have been used in this work: some of the profiles are based on:

(a) **blocks of text**

In George (1984), the extant literature of traditional Cornish was divided into blocks, as follows:

OCV Old Cornish Vocabulary
MC+ Charter Endorsement and *Pascon Agan Arluth.*
ORD The Ordinalia
BSM *Beunans Meriasek,* 1504
TH+ Tregear's Homilies *(c.*1558), Sacrament of the Altar, plus some minor texts
CW+ *Creacon of the World,* 1611; plus some minor texts
L17 Other seventeenth-century texts
EDL Writings of Edward Lhuyd, 1707
L18 Other eighteenth-century texts

It is acknowledged that this division of the texts is not the best which could have been used; it would be better to separate the plays of the Ordinalia, and to separate Tregear's Homilies from the Sacrament of the Altar. For this reason, some of the orthographic profiles have been based on:

(b) **individual texts** in Middle Cornish, plus *Creacon of the World.*

The following abbreviations have been used for these texts:

CE. Charter Endorsement
MC. "Mount Calvary", i.e. *Pascon agan Arluth*
OM. *Origo Mundi*
PC. *Passio Christi*
RD. *Resurrectio Domini*
BM. *Beunans Meriasek*
TH. Tregear's Homilies
SA. Sacrament of the Altar (i.e. the 13th homily)
CW. *Creacon of the World.*

A2 Phonetic symbols

In *PSRC,* a chapter on phonetic symbols was included to help readers who were not familiar with them. This is repeated here.

SYMBOLS FOR VOWELS

Conventional description of vowels

Vowels may be defined in terms of four features:

(a) height of tongue in the mouth
For languages which have vowels at three distinct levels, the terms **high**, **mid** and **low** are used to describe these levels. In Cornish (as in French), vowels exist at four distinct levels, and the terms **close**, **half-close**, **half-open** and **open** are used for these.

(b) position of tongue fore-and-aft in the mouth
The terms **front**, **central** and **back** are used to describe three discrete positions of the tongue.

(c) rounding of lips
Different vowels are produced according to whether the lips are **rounded** or **unrounded** (spread).

(d) nasality
In principle, any vowel may be nasalized, i.e. be produced by air passing through the nose rather than the mouth. There were no nasal vowels in native words in Cornish, but some speakers may have used nasal vowels in such loan-words as *dons* 'dance'. This pronunciation is not used in ***Kernewek Kemmyn***.

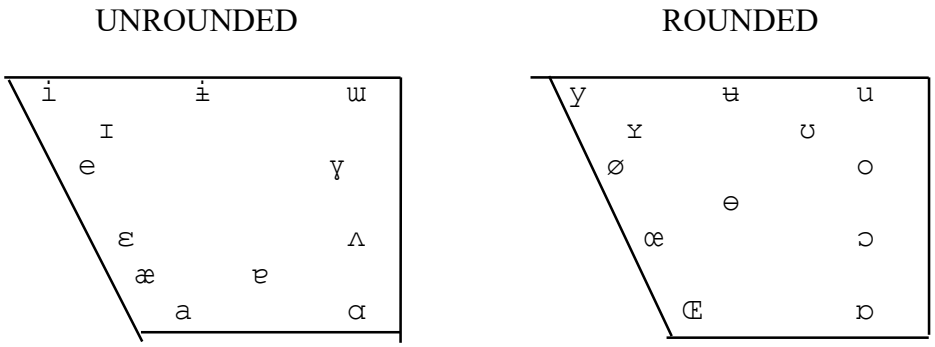
Symbols for vowels in the International Phonetic Alphabet (IPA)

Combination of the first three features gives the following table, with IPA symbols added:

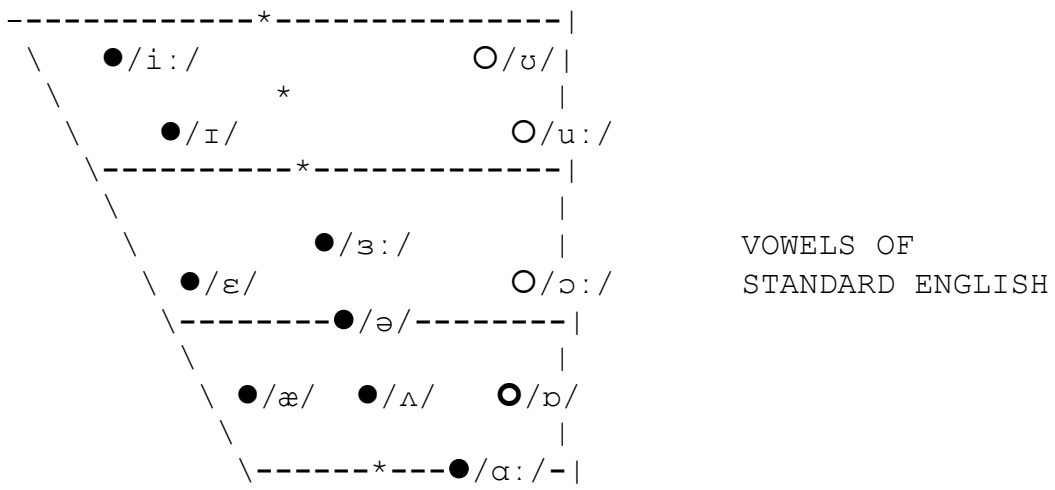
	UNROUNDED			ROUNDED		
	front	central	back	front	central	back
CLOSE	i	ɨ	ɯ	y	ʉ	u
HALF-CLOSE	e		ɣ	ø		o
HALF-OPEN	ɛ		ʌ	œ		ɔ
OPEN	a		ɑ	Œ		ɒ

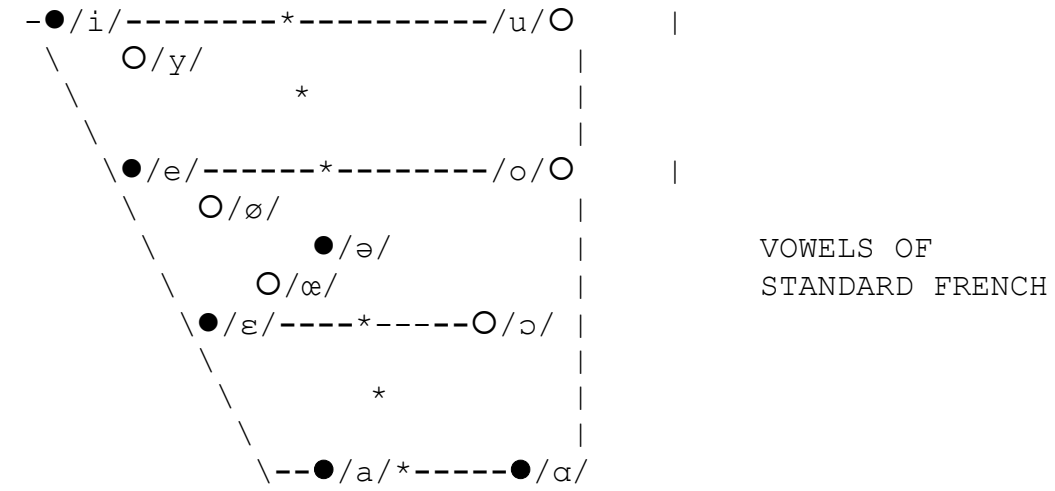
It will be observed that there are more spaces than symbols in the table. This is because the domain defined by features (a) and (b), in effect the space within the mouth, is not rectangular. There is more space aloft than below. To allow for this, vowel diagrams are often presented in the form of a trapezium {Fig. A2.1}. Some further symbols, such as æ, have been added.

Trapezoidal vowel diagrams *Fig. A2.1*



The reader may be assisted by the trapezoidal vowel diagrams for standard English and standard French {Fig. A2.2}.





SYMBOLS FOR CONSONANTS AND SEMI-VOWELS

Consonants may be described conventionally in terms of three features:

(a) nature of the constriction of the air-flow
This classifies consonants under the headings **occlusives**, **affricates**, **spirants**, **nasals** and **liquids**.

(b) position of the tongue during articulation
From front to back of the mouth the positions are **bilabial**, **labio-dental**, **dental**, **alveolar**, **palatal**, **velar** and **glottal**.

(c) presence of absence of voice
Consonants may be classed as **voiced** or **voiceless**.

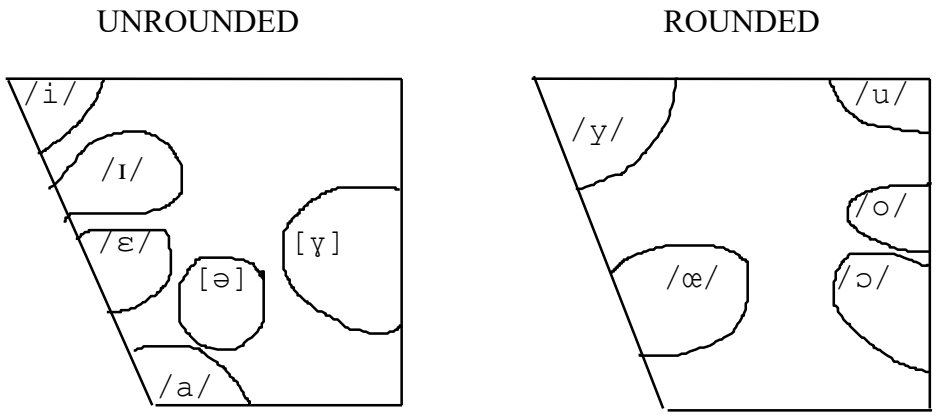
A typical conventional table of common consonants is given in Fig. A2.4, together with the graphemes used in ***Kernewek Kemmyn***. There then follows a check-list of phonemes in standard English, with (in the appropriate cases), their rough equivalents in Cornish.

CONVENTIONAL TABLE OF CONSONANTS AND SEMI-VOWELS

with spelling used in ***Kernewek Kemmyn***

		BILABIAL	LABIO-DENTAL	INTER-DENTAL	ALVEOLAR	PALATAL	VELAR	GLOTTAL
OCCLUSIVES	voiceless	p <p>			t <t>		k <k>	
	voiced	b <b>			d <d>		g <g>	
AFFRICATES	voiceless				ts		ʧ <ch>	
	voiced				dz		ʤ <j>	
SPIRANTS	voiceless	Φ	f <f>	θ <th>	s <s>	ʃ <sh>	x <gh>	h <h>
	voiced	β	v <v>	ð <dh>	z <s>	ʒ	ɣ	ɦ
NASALS		m <m>			n <n>	ɲ	ŋ <ng>	
LIQUIDS					l <l>			
					r <r>			
SEMI-VOWELS						j <y>	w <w>	

Vowels in the phonological base of *Kernewek Kemmyn* *Fig. A2.2*



CHECK-LIST OF PHONEMES IN STANDARD ENGLISH

SYMBOL	DESCRIPTION	EXAMPLE	***Kernewek Kemmyn*** (rough equivalents)
Vowels			
/ɪ/	short close front unrounded	*b**i**t*	*gw**y**nn*
/ɛ/	short mid front unrounded	*b**e**t*	*k**e**nn*
/æ/	short open front unrounded	*b**a**t*	*k**a**nn*
/ʌ/	short half-open central unrounded	*b**u**t*	*sk**oe**ll*
/ʊ/	short close back rounded	*p**u**t*	
/iː/	long close front unrounded	*b**ee**t*	*gw**i**n*
/ɜː/	long mid central unrounded	*B**er**t*	
/ɑː/	long open back/central unrounded	*B**ar**t.*	
/ɔː/	long mid back rounded	*b**ough**t*	*mos*
/uː/	long close back rounded	*b**oo**t*	*d**ou**t*
Diphthongs			
/ɛɪ/		*b**ai**t*	*s**ey**th*
/aɪ/		*b**i**te*	*p**ay**n*
/ɔ✋/		*b**uoye**d*	*m**oy***
/əʊ/		*b**oa**t*	*H**ow**l*
/aʊ/		*b**ou**t*	*gl**aw***
/ʊə/		*b**ee**r*	
/ɛə/		*b**ea**r*	
/ʊə/		*b**oo**r*	

SYMBOL	DESCRIPTION	EXAMPLE	***Kernewek Kemmyn*** (rough equivalents)
Consonants			
/p/	voiceless bilabial occlusive	***p****ale*	***p****enn*
/t/	voiceless alveolar occlusive	***t****ale*	***t****enn*
/k/	voiceless velar occlusive	***k****ale*	***k****enn*
/b/	voiced bilabial occlusive	***b****ale*	***b****en*
/d/	voiced alveolar occlusive	***d****ale*	***d****en*
/g/	voiced velar occlusive	***g****ale*	***g****en*
/ʧ/	voiceless palatal affricate	***ch****ap*	***ch****i*
/ʤ/	voiced palatal affricate	***J****ap*	***j****ag*
/f/	voiceless labio-dental spirant	***f****ie*	***f****el*
/v/	voiced labio-dental spirant	***v****ie*	***v****il*
/θ/	voiceless dental spirant	***th****igh*	*ow* ***th****as*
/ð/	voiced dental spirant	***th****y*	***dh****e*
/s/	voiceless alveolar spirant	***s****ip*	***s****agh*
/z/	voiced alveolar spirant	*zip*	
/ʃ/	voiceless palatal spirant	*me****sh****er*	***sh****am*
/ʒ/	voiced palatal spirant	*mea****s****ure*	
/h/	voiceless glottal spirant	***h****igh*	***h****i*
/m/	voiced bilabial nasal	***m****ight*	***m****os*
/n/	voiced alveolar nasal	***n****ight*	***n****os*
/ŋ/	voiced velar nasal	*lo****ng***	*mo****ng***
/l/	voiced alveolar liquid - lateral	***l****ight*	***l****os*
/r/	voiced alveolar liquid - retroflex	***r****ight*	***r****os*
Semi-vowels			
/j/	voiced palatal semi-vowel	***Y****ale*	***y****ar*
/w/	voiced velar semi-vowel	***w****ail*	***w****ar*

A3 Glossary of technical terms

affection The sound change caused in a vowel by the anticipation of a subsequent vowel, e.g. the past participle of ***kara*** 'to love' is ***kerys*** rather than ****karys,*** since [a] is affected to [ɛ] under the influence of the subsequent [ɪ].

allophone One of a set of similar speech sounds which together constitute a phoneme; e.g. in English, [p^h], [p] and [p] are the three allophones of the phoneme /p/. These sounds are slightly different from one another, but we do not normally notice the differences, because they are not phonemic. In Cornish, [oː], [o˙] and [ɤ] are allophones of /o/; [x] and [ɦ] are treated as allophones of /x/.

alternation The use of two different graphemes for the same (original) phoneme; e.g. <y> and <e> for /ɪ/ {Section 16}.

assibilation A sound-change in which the result is [s] or [z]; e.g. Old Cornish [-d] in *tat* 'father' > Middle Cornish [-z] in *tas.*

close vowel A vowel which is produced with the tongue high up in the mouth (also called a high vowel).

closed syllable A syllable ending in one or more consonants.

diphthong A speech sound whose quality varies continuously from that of one vowel to that of another, within one syllable; e.g. [ɔɪ] is the diphthong in Cornish and English ***joy***.

duality The principle whereby an older and a newer sound can be used in Cornish rhymes in the same work.

etymology The origin and history of words.

falling together The fusing or merging of two phonemes into one.

fixed orthography A spelling system in which each word is always spelled in the same way.

geminate consonant One which is repeated, e.g. [nn] in ***pennow*** 'heads'.

grapheme A minimum distinctive unit of writing in a language, e.g. <k>, <ch>.

homophone One of two or more words which have the same pronunciation, but differ in meaning (and perhaps also in spelling); e.g. English *there, their;* Cornish ***goel*** 'feast', ***goel*** 'sail'.

imperfect rhymes Rhymes in which the last syllables of the rhyming words are not phonetically identical, but sufficiently close to be frequently used as acceptable rhymes, and thereby included in a rhyming ensemble.

lexical diffusion A mechanism for sound-change, whereby one sound is replaced by another, this happening one word at a time.

liquid An [l-] or [r-] - like consonant.

long consonant A consonant whose duration is long; often the same as a geminate consonant.

marginal A feature which has so few examples one cannot be sure about it.

metathesis The exchange of sounds in a word (or group of words); e.g. Middle Cornish *e(p)scop* 'bishop' > Late Cornish *ispak.*

mid-length Neither long nor short; sometimes called half-long.

minimal pair Two words which differ only in a single sound, and thus serve to define a phonemic difference; e.g. English *pet* and *bet* show /p/ *v.* /b/; Cornish ***Sul*** 'Sunday' and ***seul*** 'whoever' show /y/ *v.* /œ/, a phonemic difference recognized by Williams but not by Nance.

monoglot Speaking only one language.

monosyllable A word consisting of only one syllable.

morpheme A word or part of a word which has grammatical meaning.

morphology The study of the structure of words.

morphophonemic Referring to a combination of phonemes and morphemes.

nasal A speech sound produced by air passing through the nose. In Cornish, the nasal consonants are [m, mm, n, nn]; there are no nasal vowels.

open vowel A vowel which is produced with the tongue low down in the mouth (also called a low vowel).

open syllable A syllable ending in a vowel.

orthographic conservatism The practice of spelling words in a way which reflects an obsolete pronunciation; e.g. *night* in English includes <gh>, even though [ç] is no longer pronounced. Dr Williams has to invoke orthographic conservatism on a massive scale in order to support his hypotheses.

orthographic profile A table showing the frequency of use of different graphemes in texts or blocks of text.

orthography A spelling system.

palatalization A sound-change in which a consonant which is not normally palatal becomes palatal (i.e. one produced by raising the tongue towards the hard palate); e.g. the change [dz] > [ʤ] in Middle Cornish *pygy* 'to pray'

perfect rhymes Rhymes in which the last syllables of the rhyming words are phonetically identical (except for stress)

phoneme A minimal significant contrastive unit in the phonological system of a language.

phonemic principle The principle whereby each phoneme in a language is represented by a different grapheme; this is aspired to in ***Kernewek Kemmyn***, but not quite attained.

phonetics The study of speech sounds in the absolute, without necessarily referring them to any particular language.

phonology The study of speech sounds within the framework of language.

poor rhymes Rhymes which do not fall within a rhyming ensemble, and are bad enough to bring forth groans from an audience.

post-tonic The syllable immediately following the stress; e.g. the last syllable in the word ***leverel*** 'to speak' [lɛv' ę·rɛl].

pre-occlusion The sound-changes [nn] > [dn] and [mm] > [bm].

pre-tonic The syllable immediately preceding the stress; e.g. the first syllable in the word ***leverel*** 'to speak' [lɛv' ę·rɛl].

prosodic shift The breakdown of the quantity rules in Cornish, whereby the threefold distinction of length (long, mid-length and short) became a twofold distinction (long and short). Dr Williams claims that this occurred "between the Old and Middle period", but arguments are presented here {Section 4 and elsewhere} to show that it occurred in the seventeenth century.

quantity The relative duration of a speech sound. In Cornish, three degrees of vocalic quantity occur; these are the long vowels, the mid-length vowels, and the short vowels.

quantity rules Rules which link the length of stressed vowels with the length of the following consonants.

realization The actual way in which a phoneme is pronounced in a given phonetic environment, often described in great phonetic detail.

reversed spelling When a phoneme P_2 falls together with another phoneme P_1, the original spelling for P_2 is sometimes used to denote P_1; this is known as reversed spelling; e.g. when the final [θ] was lost in *lowarth* 'garden', the reversed spelling *lowarth* was occasionally used to denote ***lowr*** 'enough'.

rhyming ensemble A group of sounds which are frequently rhymed, even though the rhymes may not be perfect.

schwa An unstressed mid-central vowel, represented by [ə]; e.g. the sound of *a* in English *around.* The extent of its occurrence in Cornish is the subject of dispute {Sections 14 and 15}; it occurs in ***dhe*** 'to', ***dhe'm*** 'to my', and ***re'm*** 'by my'.

short consonant A consonant whose duration is brief; often the same as a single consonant.

stress Emphasis on a particular syllable in an utterance.

syntax The structure of sentences.

unstressed Lacking emphasis.

vowel A speech sound produced with vibration of the vocal cords, and with no obstruction to the passage of air from the lungs.

vowel harmony A sound-change whereby a vowel acquires the same sound as another vowel preceding or following it.

A4 A note to computerphobics by Paul Dunbar

Occasionally one hears the accusation that Dr. Ken George's work is "Cornish invented by computer". Assuming - charitably - that this is not mere scraping the barrel for lack of more articulate and reasoned criticism, it would seem that in 1997 there are still those to whom computers are a sort of black art.

My own understanding of computers is limited: I regard my computer as a sort of souped-up typewriter upon which I can do word-processing, with a desk-top publishing package which enables me to do smart layouts. That is currently all that I wish to use a computer for. I am not sure I know what a spreadsheet is, and have so far had no occasion to use a database.

Nevertheless I do not find it difficult to understand, in broad terms, how Ken has made use of computers to analyse Cornish and arrive at accurate conclusions about its sounds. If I can grasp it, there is hope for others. Essentially one can use a computer as if it were a souped-up card index, which can supply details of data sorted in different ways as required.

I was given a dramatic demonstration of this at Ken's home. To test Dr Williams' assertions, Ken suggested that we should look at all the words in the texts containing the grapheme <dd>. A few key strokes, and up on the screen came 113 lines of text, each one with the textual source and line number identified, and the words containing the graphemes highlighted. It is worth emphasising that Ken's program trawls for, and finds, all the examples of the graphemes requested in the texts on its data-base. Occasionally it is necessary to see more than a single line of text to establish definitely which word it is one is looking at. Simple. A couple of key strokes, and the whole page of text which surrounds the single line appears. Word identified, a few key strokes takes one back to the list of lines. Within about half an hour, we had scrutinised every example of the <dd> and other tell-tale graphemes, and it was perfectly clear to both of us that Dr Williams' dating of the prosodic shift was completely wrong. The data were irrefutable evidence. The texts themselves destroyed the core of Dr Williams' attack on ***Kernewek Kemmyn***. Later, Ken applied a much more sophisticated program (the "dud light bulb" test), which showed that, in the case of the "long-o problem", the probability of Dr Williams' being correct varied, according to text, from about 1.5% to 1 part in 10^{18}.

To sum up: a computer enables one person to do in a short time what would take a team of researchers years to accomplish using pre-computer methods. Even better, it enables several methods to be tried in order to establish the best, and cross-checking is also very quick. It would also be equally rapid, for anyone who wants to see the basis for ***Kernewek Kemmyn*** for themselves, to check Ken's work in minute detail. One would, of course, have to have the necessary linguistic as well as computer skills.

A5 References

GEORGE, K.J. 1983 'A computer model of sound-changes in Cornish'. *Assn. Lit. & Linguistic J.,* **4**, 39-48.

GEORGE, K.J. 1984 *A phonological history of Cornish*. Unpublished doctoral thesis presented to the University of Western Brittany, Brest. 555 pp.

GEORGE, K.J. 1985 'Le cornique - un cinquième dialecte du breton ?' *La Bretagne Linguistique,* **1**, 117-124.

GEORGE, K.J. 1986 *The pronunciation and spelling of Revived Cornish.* *PSRC* Cornish Language Board, Saltash.

GEORGE, K.J. 1992 'An delinyans pellder-termyn: toul rag studhya an yeth Kernewek'. In *Bretagne et pays celtiques: Mélanges offerts à la mémoire de Léon Fleuriot,* ed. G. Ar Menn and J.-Y. Le Moing, Roazon and S. Brieg.

GEORGE, K.J. 1993 *Gerlyver Kernewek Kemmyn: An Gerlyver Meur Kernewek - Sowsnek.* *GLKK* Cornish Language Board, Saltash.

GIMSON, A.C. 1962 *The pronunciation of English.* Edward Arnold.

HOLMES, J.G. 1996 *Nebes moy geryow a-dro dhe Gernewek.* Unpublished reply to Dr Williams' *Cornish Today.*

JACKSON, K.H. 1967 *A historical phonology of Breton.* Dublin Institute for Advanced Studies.

LOTH, J. 1897 *Revue Celtique*

MURDOCH, B.O. 1981 *Pascon agan Arluth: the literary position of the Cornish poem of the Passion.* Studi Medievali **22**, 822-836.

PADEL, O.J. 1985 *Cornish Place-Name Elements.* English *[sic]* Place-Name Society, **56/57.** Nottingham.

POOL, P.A.S. 1973 *The place-names of West Penwith.* Federation of Old Cornwall Societies.

THOMAS, A.C. 1985 *Exploration of a drowned landscape.* Batsford, London.

WELLS, J.C. 1982 *Accents of English **1**: an introduction* Cambridge University Press.

WILLIAMS, N.J.A. 1990 'A problem in Cornish phonology'. *Celtic Linguistics,* ed. M.J.Ball, J.Fife, E.Poppe and J.Rowland, pp. 241-74.

WILLIAMS, N.J.A. 1995 *Cornish Today.*
CT Kernewek dre Lyther, Sutton Coldfield.

WILLIAMS, N.J.A. 1996a *A supplement to* Cornish Today.
CT Faculty of Celtic Studies, University College Dublin.

WILLIAMS, N.J.A. 1996b 'Linguistically sound principles: the case against Kernewek Kemmyn'. *Cornish Studies (2nd series),* **4**,

WILLIAMS, N.J.A. 1996c *Which Cornish?* Lecture given in Lostwithiel, 1996 Sep.

WILLIAMS, N.J.A. 'Pre-occlusion in Cornish.'
Pre-occlusion Submitted to *Studia Celtica.*