

Journal

Advanced Design Practice

Journal

This journal is a record of how I worked during the research, the overall progress and its findings.

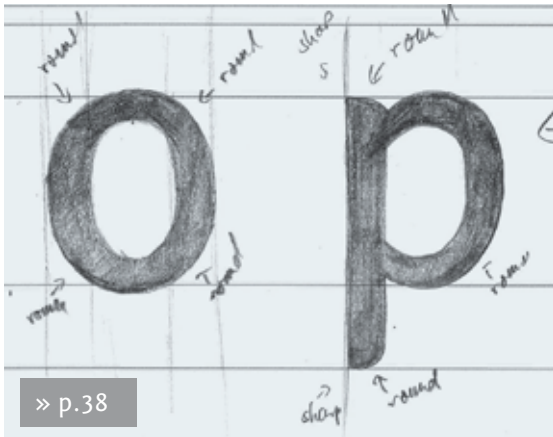
The Artifact Series was based on the findings mirrored in my journal.

(please see A2 poster series)



CONTENTS

 JOURNAL OF PROJECT

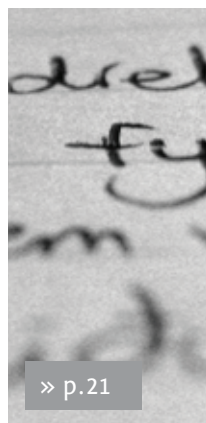
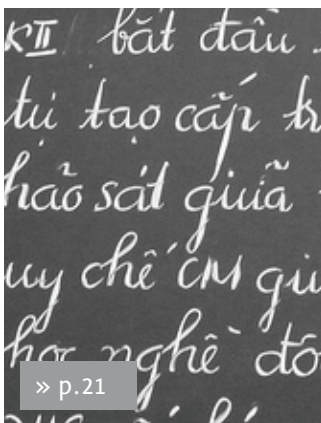


6 Introduction

The following findings lead up the current research. They are not part of the Master Thesis, but need to be explored as an introduction as they are the building blocks of the current investigation.

8 Approach/Brief & Time Management

The successful approach to this research is to know and analysis theoretically and practically possibilities and restrictions within the given time frame. Moreover it relies on the honest assessment of skills and accessible tools.



10 Literature Search

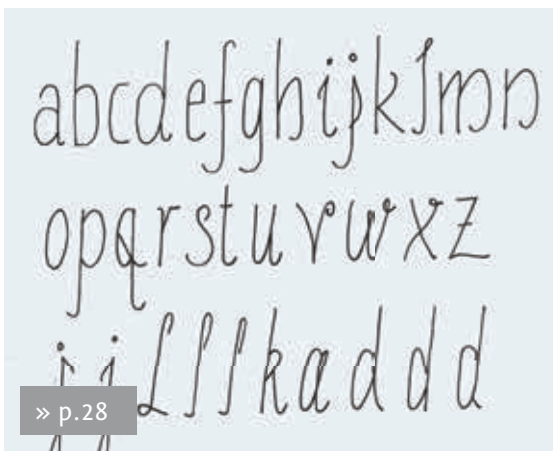
The Literature Search is the foundation of the development of my theory and it spans over several research fields and design practice examples of outstanding work.

14 The Theory

The first step is to answer the question of the validity of this research. The background research and experiments of the last term suggesting there is a enough reason to believe a further investigation is appropriate.

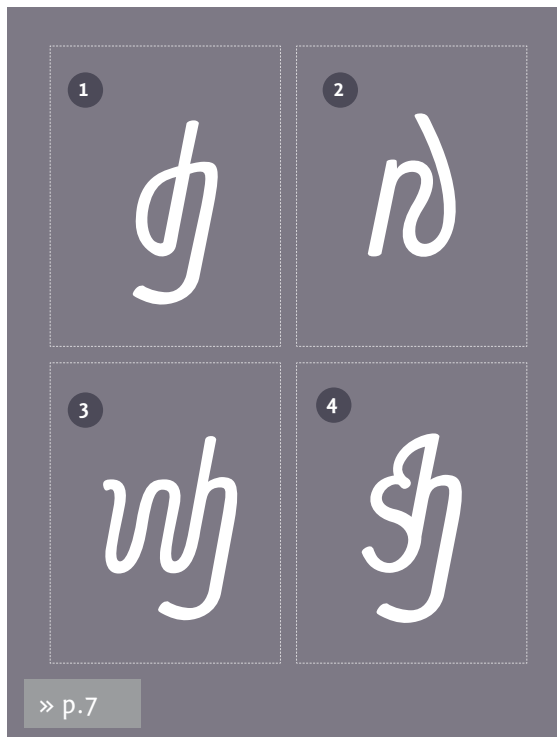
24 Investigating Grammar, Tools

Irish Gaelic is a very complex language consisting of vowels, simple consonants, aspirated consonants, eclipsed consonants, diphthongs, double consonants and exceptions.



26 Test Software, First Experiments

The testing was successful and therefore this research can now continue. The handwritten typeface might not look very 'high quality', but it will 'do a very good job' in finding and creating a possible ligature system. Most importantly it allows me to change/amend creations while user tests are taking place, so test users will have a direct input in the development.



30 Prototype

I decided to work with a handwriting typeface for the first user tests as I thought it was quicker to amend the prototype and test its functionality. I used the bold cut. Simplicity was important and working with a bold version helped me to be disciplined. In addition I hoped that this method would outline emerging problems at an early stage.

36 Drawing Type to Type Tests

On the next pages I show the drawings of an alphabet that will form the basis of my concept. I drew a full lowercase, uppercase alphabet including numbers and graphemes.

56 Lenition and Concept Tests

This concept sees the afflicted consonants merged to a single ligature to make it easier to understand the change in language, without losing the integrity of the overall writing system. The emphasis is to achieve 'read how you speak'.

72 The Noon

This typeface originates from the discussions of my concepts with the participants at the crafting type design workshop in Dublin on the 4th - 6th of October 2013. It was found that my new sketches of the (a, e, n, o) were better suited to my concept than the 'unhappy Avow' and there were lots of ideas from the people involved in the workshop that are mirrored in this typeface.

86 Concepts

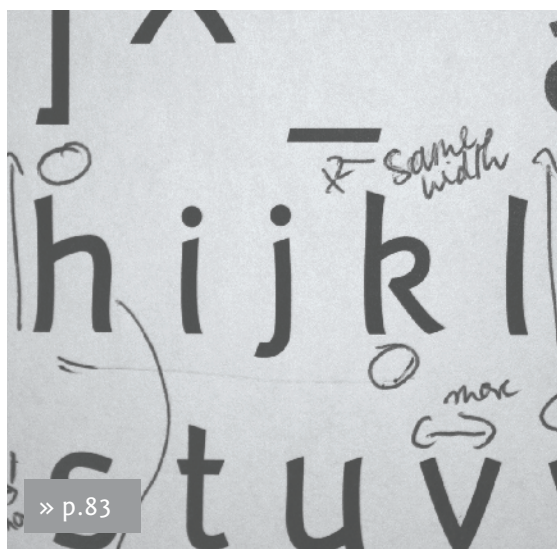
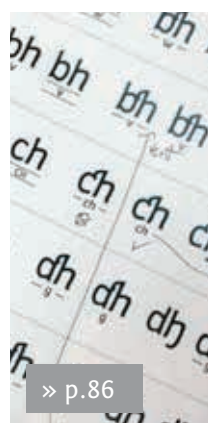
Concept 1 shows the descriptor at the top and bottom of the lenition with the spoken equivalent sound in English. Idea: The core of this approach are 'soft' ligatures, with this I mean the usage of ligatures that only indicate lenition, and keeping the integrity of the letters that are generally used in common practice intact.

102 Survey, Results and Findings

To fully verify the research question, more research and comprehensive user tests are needed. Next steps regarding the design practice would be the creation of accurate ligature pairs for all exceptions incorporating all characteristics as part of the typeface.

109 Noon & Pairs

If the Irish Gaelic language wants to be sexy to learn, than it has to be accessible and understandable for people of all walks of life. Make it easy. There is nothing wrong with that. For people from people, use a language that everybody understands.



INTRODUCTION

WORK LEADING TO RESEARCH

The following findings lead up the current research. They are not part of the Master Thesis, but need to be explored as an introduction as they are the building blocks of the current investigation.

PERSONAL THOUGHTS AND THE REFINEMENT OF THE RESEARCH QUESTION

Staunton (2010) appeals to Irish type designers to analyse the structure of the Irish language and to produce a typeface that suits its particular needs, without returning to manuscript models. So I decided to follow Staunton's call.

The first research question was therefore: **Is it possible to visualize Irish Gaelic as a spoken language?**

All explorations are taking my design practice towards various concepts, in which I try to connect sound and phonetics with letter shape resulting in a modern Irish Gaelic typeface.

I am half Greek and half German and my mother tongues are German and Greek. I haven't spoken German since the arrival in Ireland six years ago and the last time I spoke Greek was seventeen years ago. Out of my own personal circumstances, I know that languages can be forgotten: my German is very bad at this stage, my Greek almost non-existent. English and French are my second languages.

I am not an Irish Gaelic speaker. My perception was, while listening to the sound of the Irish Gaelic language and comparing it with the written words, that the flow of the language and how it is spoken does not reflect its written record.

For example:

Concubhar - which most non Irish Gaelic speakers would read and pronounce most likely '**concubar**' is actually pronounced '**crohur**'.

This makes it very hard to understand and learn this language, because it implies a decoding process for the

brain on two levels: grammatically and phonetically.

I thought in the beginning, that Irish Gaelic with its numerous vowels might sound as soft as French or like 'Elvish' from the Lord of the Rings. But it doesn't. The Irish Gaelic language comes alive when it is spoken. It can be as strong as it is soft and as melodic as it harsh. I wonder if this is a contributing reason why the success of the revival of the Irish Gaelic language so difficult to achieve? The primary use of the English language with its coherent reference of spoken to written record is used with ease in modern Ireland. It is the language of business and trade.

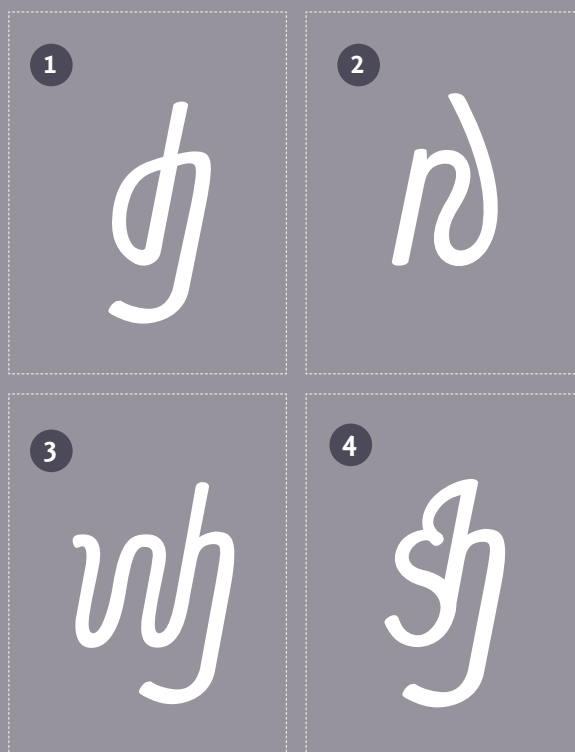
Irish Gaelic might be very difficult to learn as second language and needs a lot of discipline and passion, because of its complex grammar and the distance in relation of spoken and written record.

My partner and many of his friends learned Irish Gaelic as second language in school throughout the years of their entire education, but they have difficulties to speak, remember words, sentences and pronunciations.

Is it possible, that the decoding process for the brain to connect the opposing written and spoken record, makes it more difficult to learn, understand and remember Irish Gaelic?

I believe, there is a truth in this question and therefore I want to examine the possibility of developing a concept for typographic expression that allows words to be read as they are spoken or heard. I want to create a typeface in which the Irish Gaelic language commands the Latin language system, rather than being pressed into it.

If the characteristics of grammatical language rules such as lenition, eclipsis or diphthong can form a new expression that refers to its' pronunciation quicker and more clearly by using the Latin language system tools, would it be possible that it would be easier to learn, read



The green circles are referring to the four categories:

1. Ligatures that are nearly silent like 'gh'
2. Ligatures where one letter is silent such as 'eo', 'nd', 'adh'
3. Ligatures where the sound of the written letter changes to another such as 'mh' becomes 'w' or 'v' (depending if sound is broad/'forgot word', 'e' can become 'a' in certain grammatical situations).
4. Ligatures that are spoken but not written such as 's' is spoken 'sh'

FIGURE 1

and write Irish Gaelic? And if this typeface would have its own ligatures and characteristics - its own integrity - mirroring the language, would it create a form of identity? Therefore I revised the initial research question to:

Typographic expressions of spoken Irish Gaelic through ligatures? The challenge was to find an entrance to a possible system. I intuitively chose ligatures as starting point into the overall research and outlined four main separate categories in order to develop a possible concept:

1. Ligatures that are nearly silent like 'gh'
2. Ligatures where one letter is silent such as 'eo', 'nd', 'adh'
3. Ligatures where the sound of the written letter changes to another such as 'c' becomes 'k', 'mh' becomes 'w' or 'v' (depending if sound is broad > 'forgot word', 'e' can become 'a' in certain grammatical situations).
4. Ligatures of letters that are spoken but not written such as 's' is spoken 'sh'

By developing words with ligatures of all four categories it was important that they a) show they distinct differences

without b) being in disharmony with the typeface. The positive findings of this research show that this concept is worth pursuing, refining, testing and extending. In my Master Thesis, I would like to investigate the following questions:

1. Is it possible to create a basic Irish Gaelic typeface consisting of a complete ligature system reflecting the spoken Irish Gaelic language?
2. Can this typeface and ligatures easily written by hand?
3. How will non-speakers and speakers react to the prototype typeface?
4. How does the brain responds (*Neurolinguistics*) to the new typeface in comparison to currently used typefaces?

Staunton, M. D. (2010) Trojan Horses and Friendly Faces: Irish Gaelic Typography as Propaganda, *Revue LISA/LISA e-journal* [Online], Vol. III - n°1 | 2005, Online since 27 October 2009, connection on 29 October 2012. URL > <http://lisa.revues.org/2546>; DOI:10.4000/lisa.2546

APPROACH

APPROACH/BRIEF & TIME MANAGEMENT

The successful approach to this research is to know and analysis theoretically and practically possibilities and restrictions within the given time frame. Moreover it relies on the honest assessment of skills and accessible tools.

APPROACH

This five month Master Thesis project is divided into the following five stages:

Stage 1: Explore and Defining the Brief (July)

Stage 2: Focus (August)

Stage 3: Develop (September)

Stage 4: Deliver (October)

Stage 5: Revise (November)

NAME OF PROTOTYPE TYPEFACE

The typeface 'Avow' - ideally (*when the output is of high quality*) - reflects the following ideals:

1. to acknowledge the embrace of the nature of the Irish Gaelic language within the Latin writing system
2. to declare the importance and need of such system as true.

Meaning of the verb avow (*Source: <http://www.thefreedictionary.com/avow>*)

1. to declare or affirm solemnly and formally as true avow
- to declare or affirm solemnly and formally as true;
"Before God I swear I am innocent"
2. admit openly and bluntly avow - admit openly and bluntly; make no bones about avouch

THE BRIEF

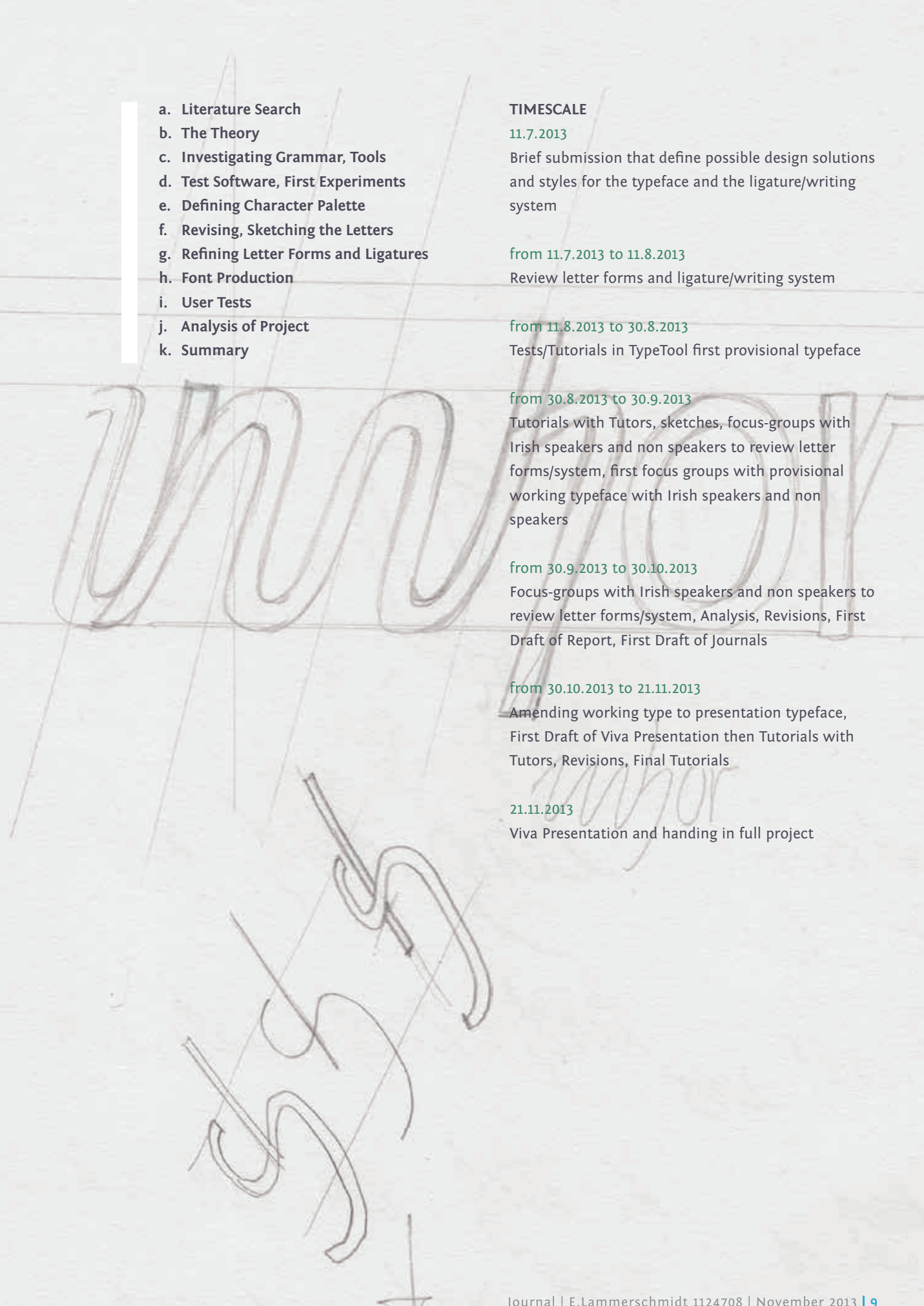
Development of a single prototype typeface. This prototype will consist of upper/lowercase letters and the required elements such as ligatures, diacritical marks, alternate characters and extras. The style can be described as a formal sans serif. With formal I refer to balanced, clear, elegant nestling in an organic structure/model.

As a organic structure/ model I mean that the development of the letters and their relationship to each other have a interdependence of the component parts, as well as their differentiation, including speech, writing, reading etc. and of course the feedback of Irish and non Irish speakers.

The attempt developing the Avow will include answering the following three questions raised in the conclusion of my former work:

1. Is it possible to create a basic Irish Gaelic typeface consisting of a complete ligature system reflecting the spoken Irish Gaelic language?
2. Can this typeface and ligatures easily written by hand?
3. How will non-speakers and speakers react to the prototype typeface?

Defining and outlining the Brief precisely is very important in order to deliver an appropriate outcome and focus on the right issue at the right time. This is a very complex project. I will have to learn and freshen up knowledge. This includes: using TypeTool3, the anatomy of typefaces and merging this knowledge with my research. Therefore I outlined the stages of this project as followed:

- 
- a. Literature Search
 - b. The Theory
 - c. Investigating Grammar, Tools
 - d. Test Software, First Experiments
 - e. Defining Character Palette
 - f. Revising, Sketching the Letters
 - g. Refining Letter Forms and Ligatures
 - h. Font Production
 - i. User Tests
 - j. Analysis of Project
 - k. Summary

TIMESCALE

11.7.2013

Brief submission that define possible design solutions and styles for the typeface and the ligature/writing system

from 11.7.2013 to 11.8.2013

Review letter forms and ligature/writing system

from 11.8.2013 to 30.8.2013

Tests/Tutorials in TypeTool first provisional typeface

from 30.8.2013 to 30.9.2013

Tutorials with Tutors, sketches, focus-groups with Irish speakers and non speakers to review letter forms/system, first focus groups with provisional working typeface with Irish speakers and non speakers

from 30.9.2013 to 30.10.2013

Focus-groups with Irish speakers and non speakers to review letter forms/system, Analysis, Revisions, First Draft of Report, First Draft of Journals

from 30.10.2013 to 21.11.2013

Amending working type to presentation typeface, First Draft of Viva Presentation then Tutorials with Tutors, Revisions, Final Tutorials

21.11.2013

Viva Presentation and handing in full project

LITERATURE

LITERATURE SEARCH

The Literature Search is the foundation of the development of my theory and it spans over several research fields and design practice examples of outstanding work.

LITERATURE MAP

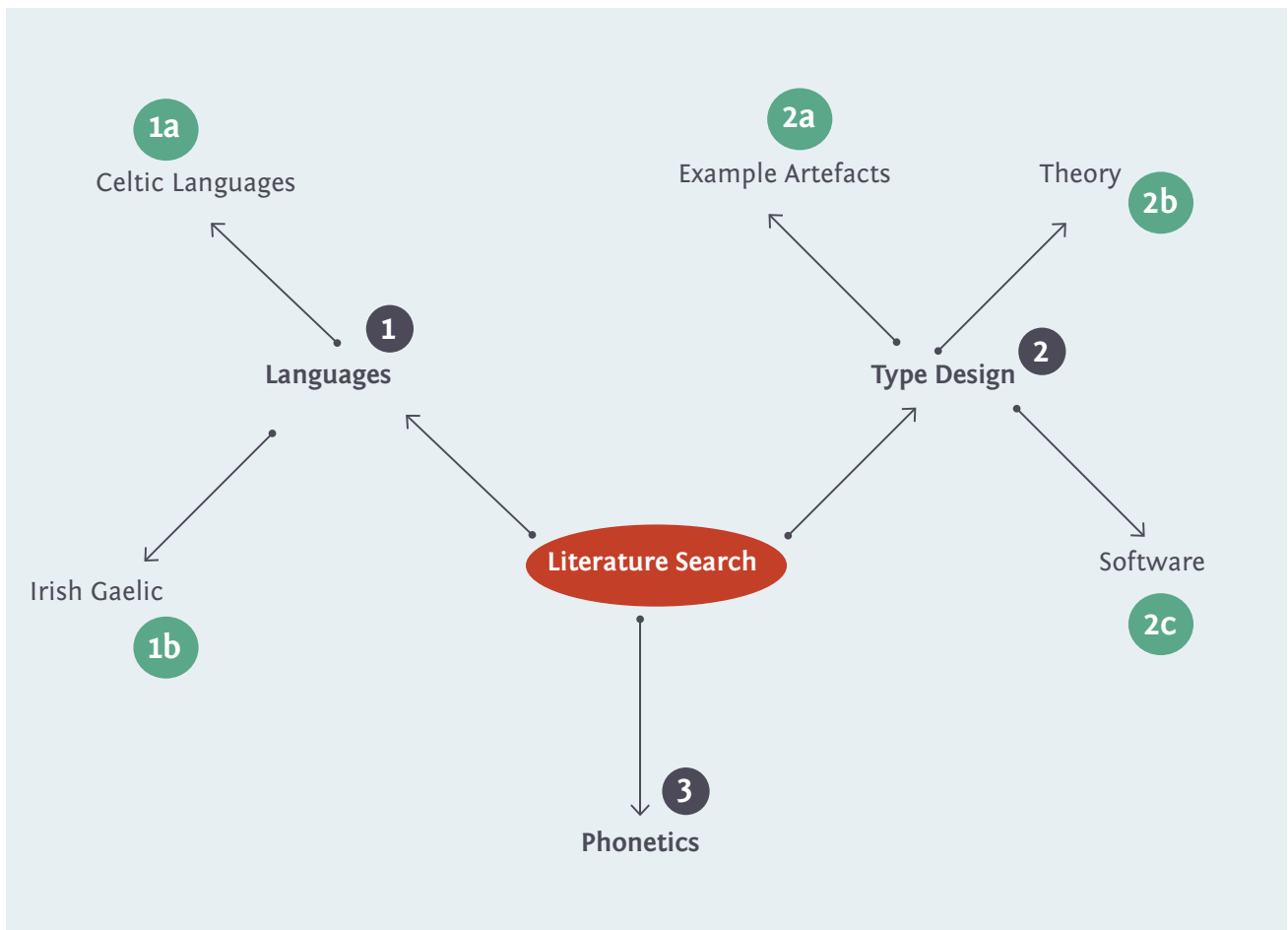


FIGURE 2

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Example Artefacts - References:

1. Eckert, Jennifer (Betreuung: Prof.in Silke Juchter). (2010). *Alexey Brodovitchs grafisches Orchester*, Muthesius Kunsthochschule, Kiel. URL: <http://www.muthesius-kunsthochschule.de/de/design/kommunikationsdesign/konzeption-entwurf/projekt-folder/GestalterportraitsSS10/BrodovitchJennifereEckert.pdf>
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eo → o	éoin	first silent	
gh → /	asúr ghasúr	totally silent	
c → k	caisín kash	c → gets k ai' → i silent s → gets sh d → silent	<div style="border: 1px solid black; padding: 5px; display: inline-block;"> ghasúr caisín ndorn mhór </div>
nd - n	ndorn		
adh → a	maradh margadh marga	dh → silent	
↓ or adh → ai'	Fag Tadhg taig	dh → gets i	
mh → w mh ^{only} → v	mhór wóir iimhóir ivíir	mh → gets w ui → u silent → i mh → gets v	
e at end of word	duine dina	ui - gets i → u silent e → gets a	
ai'	caisín	í → silent	

groups

silent letters

like gh completely

like eo nd adh ui one letter / two letter silent but one spoken

changing letters

like c (k)
mh (v/v)
(sometimes e (a))

letters change consonant / vowel in spoken language

letters spoken that are not written

like sh (sh)
(sometimes s)

THEORY

THE THEORY

The successful approach to this research is to know and analysis theoretically and practically possibilities and restrictions within the given time frame. Moreover it relies on the honest assessment of skills and accessible tools.

APPROACH TO THE THEORY

The first step is to answer the question of the validity of this research. The background research and experiments of the last term suggesting there is a enough reason to believe a further investigation is appropriate. *Figure 1* shows the interconnection of the research question.

The second step is to focus on how such a character system would look like and how many glyphs, ligatures, marks and numbers are needed to show the logic, function in its application. Furthermore the limitation in character/ glyph/mark/number development have to be clear as this research has to be concluded in November.

The third step is to understand the need of simplicity in order for users to understand and interact with a system. However, the main question in this context remains: *What system is appropriate and how does it look like.* In an email conversation with Cornelius Buttmer (Appendix 16.2) he wrote it is a challenge to develop a different grapheme for lenition on one hand and nasalisation on the other: *"...at a practical phonological level, you already know some basics of Irish. 'Bó' is 'cow' but 'My cow' is 'Mo bhó'. The 'bh' is pronounced 'v'. In the medieval past, a point known as a 'punctum delens' was put over the 'b' to indicate a change in sound value. It might be an interesting challenge to come up with a different modern grapheme to render this alteration. The process involved, known as lenition, is systematic throughout the sound system, as is another, called nasalisation. All these phenomena relate to the sound element of the challenge you face which you will encounter as you get further into language learning. It would be interesting to see what again Arabic or Chinese have done to represent such issues as occur in those languages at a design or graphic level."*

At this point in time I have only looked at lenitions and focused on solving this problem through the development of ligatures. It is important to step back and look at the overall systems in order to frame an appropriate approach, as Dr. Buttmer suggested as well to look into the integration of a distinctive graphic element with an aural: *"... you could integrate a distinctive graphic element with an aural if in an e-book the creation of a distinctive grapheme or design triggered the distinctive sound in the spoken text ... a challenge would be for your graphic design not to look too much or at all like an adaptation of the International Phonetic Alphabet symbology, which can be off putting for an ordinary reader. Some of the latter may overlap with strategies in the Text Encoding Initiative or other schemes for allowing visual and editorial interface or interaction..."*

Dr. Buttmer's advice suggests that in order to develop a character system that is functional and applicable has to be flexible towards the Irish Gaelic language in three accounts: **grammatically, phonetically and morphologically**. The reason why these three areas are important derives from the nature of linguistics itself. There is a need to include the principles of the study of language structure, or **grammar** that focuses on the system of rules followed by the users of one or more languages; the study of **morphology** (the formation and composition of words) as well as **phonology** (sound systems, the research of the actual properties of speech sounds/non speech sounds, and how these are produced and perceived).¹ All three accounts influence the **graphetics** which includes **typography** – the way language is written, read, spoken, understood and used by people to communicate with each other.²

Thinking Process (Overview)

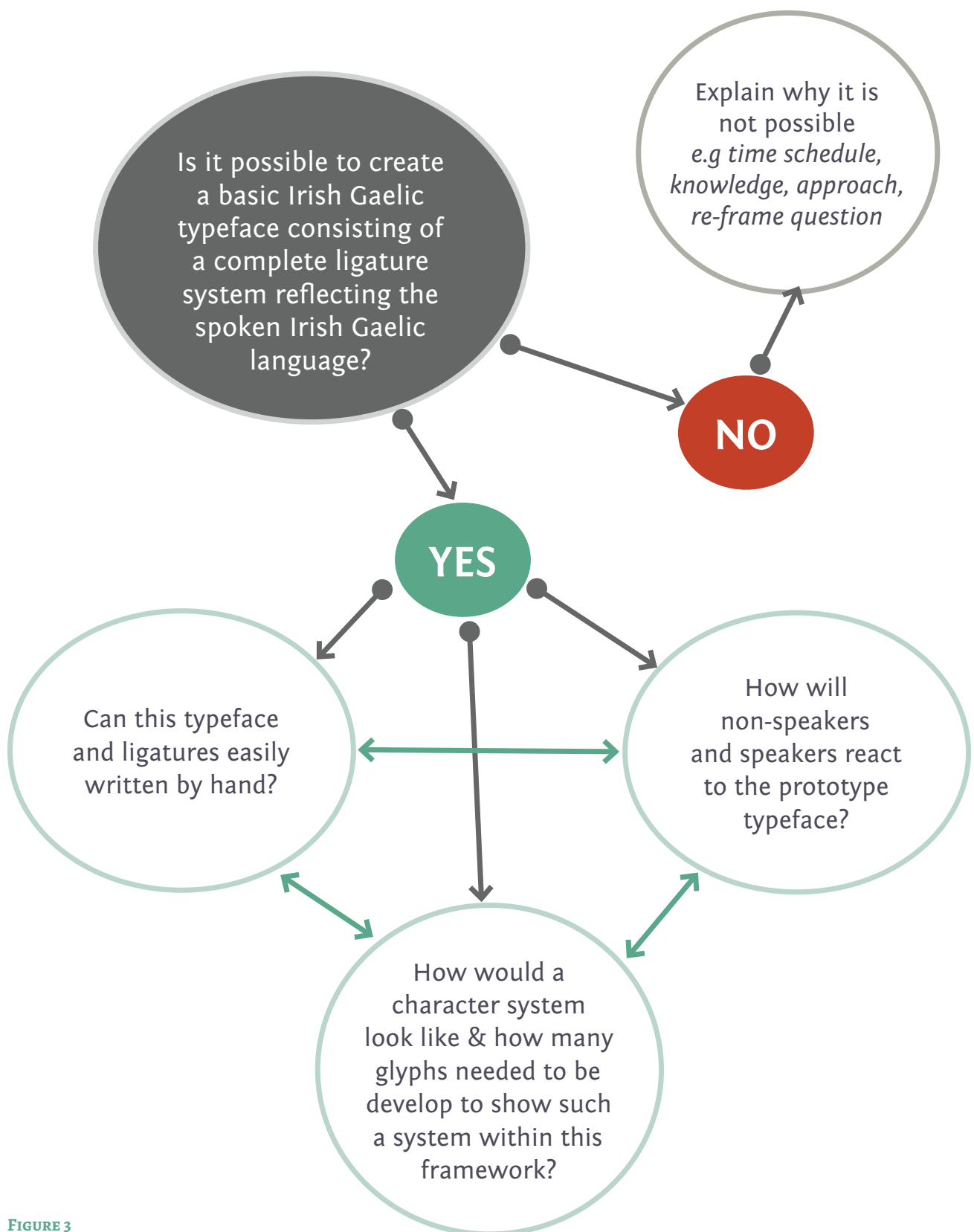


FIGURE 3

MOVING FORWARD

In order to move forward the following question needs to be answered as best as possible: *What system is appropriate and how does it look like.*

Karen (2006, p1)⁴ points out the difficulty to find 'how-to' guidelines for those interested seeking to design an orthography, as most articles, books or interviews focusing on either typology, history, describing the writing system and type design itself rather than explaining lessons learned for the benefit of a language. This highly complex process spans through several fields and therefore she states that only knowing the language does not mean that a person is adequately equipped shaping or remodelling an orthography.

Orthography is described by dictionary.com⁵ as the art of writing words with the proper letters, according to accepted usage; correct spelling; the part of language study concerned with letters and spelling; a method of spelling, as by the use of an alphabet or other system of symbols; spelling; a system of such symbols: Missionaries provided the first orthography for the language; an orthographic projection, or an elevation drawn by means of it.

A writing system is defined *"a method of representing the sounds of a language by written or printed symbols"* (WordNet)⁶ and *"the set of glyphs used for representing a given human language in written form, generally along with their conventions for use."* (Free On-line Dictionary of Computing)⁷

Karan (2006, p31) writes about an orthographic theory which *"...predicts that the reading process is not the same for languages which have consistent sound-symbol correspondences and those which don't..."* and the possibilities that comes with modern technology and the use of Unicode.

Unicode is a encoding language that covers most of the world's writing systems and is constantly in development; at the moment it covers more than 110 000 characters and 100 scripts.⁸

Karen concludes that in the past the study of writing systems were linked to the fields of archaeology, anthropology, graphology or typography, but this view has shifted in favour of its being a respected area of research and study in itself.

"Taxonomies of writing systems have usually been based, at least loosely, on the notion of representation...according to the nature of the linguistic unit that is represented by a grapheme...the minimal functional distinctive unit of any writing system" (Henderson 1984:15).

Overall Karen (2006, p34) defines six different types of writing systems/scripts which are as followed: logographic, syllabary, consonantal, alphabetic, alphasyllabary, and

featural; the Irish Gaelic language uses the alphabetic writing system since Henry Sidney, Lord Deputy of Ireland under Elizabeth I, developed the first written account of the language in 15th century.

Even though the phonemic analysis *"accurate representation of speech"* is still seen as foundational, writing is these days seen as representing language. The author also points out that an orthography design or reform should pay attention *"to factors such as underlying form and morphophonemic processes, mother-tongue speaker perception and intuition, and reading fluency for experienced readers"*. Karen (2006, p70) outlines a **successful writing system** as followed:

Motivation '*refers for me to Acceptability*'

- a) to the majority of the Mother Tongue (MT) speakers of the language;
- b) to the government;

Representation '*refers for me to Representability*'

- c) represents the sounds of the language accurately through written characters;

Ease of Learning '*refers for me to Simplicity*'

- d) is as easy as possible to learn;

Ease of Transfer & Reproduction '*refers for me to Efficiency and Usability*'

- e) can MT speakers transfer between the minority and majority languages; and
- f) can be reproduced and printed easily

Language is a natural product of the human mind ... while writing is a deliberate product of human intellect ... Language continually develops and changes without the conscious interference of its speakers, but writing can be petrified or reformed or adapted or adopted at will.

(Peter T. Daniels 1996)

In trying to pin-point the problems of the Irish Gaelic language revival, I compared the list Karen outlined to Irish Gaelic language and found that points a,b,e and f, pass the given criteria to more or less extend while points c and e are representing the links of imparity.

In the beginning of my journey I stated that the difference in spoken and written account of the language (most likely through the early adaptation into the latin

The visual language of the type design has to make sense on three accounts:

The 'sense making' in its visual form does not have to be necessarily restricted to the latin glyphs - it can be forms that suit the sound of the language itself.

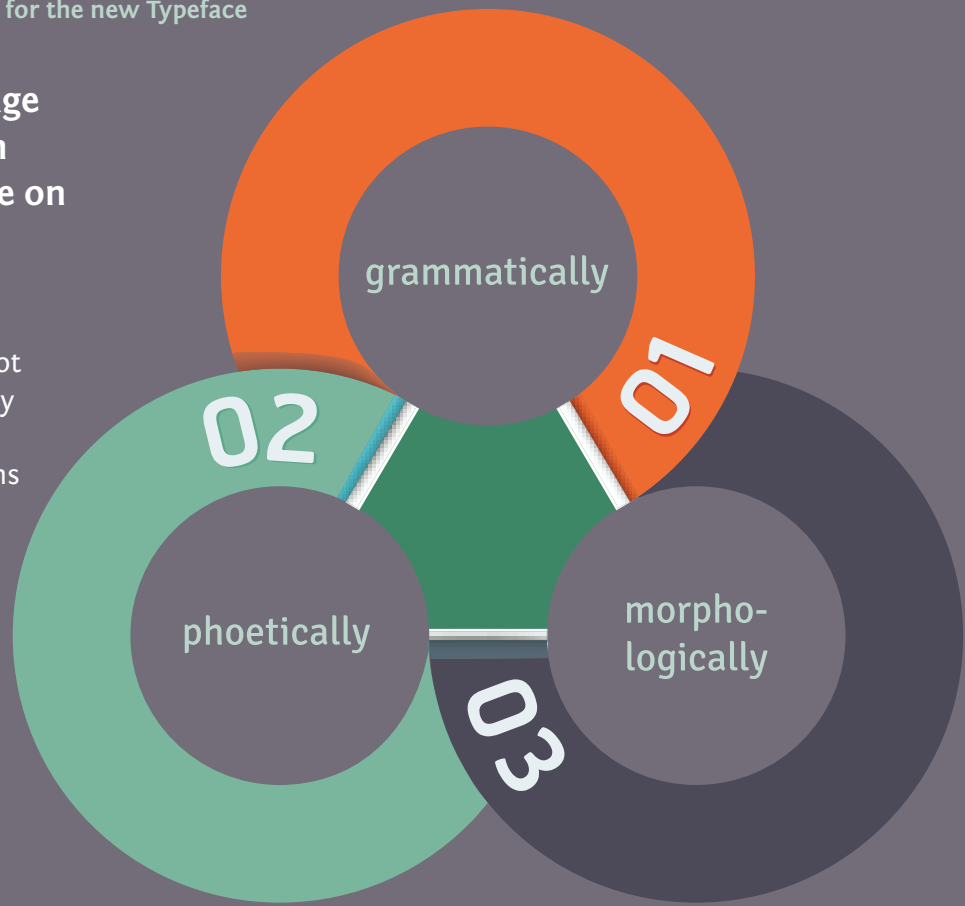


FIGURE 4

To think about:

The English alphabet includes five vowels as has Germany (after turbulent reform, and excluding <sch>, <ei>, or <eu> for umlauts such as <ä> or <ü> from in dictionaries. However, looking at Icelandic and Swedish we find an integration of its letters with diacritics (unique symbols) throughout its alphabet. (Karen, p 52)

English, French, German	a b c d e f g h i j k l m n o p q r s t u v w x y z
Swedish	a b c d e f g h i j k l m n o p q r s t u v x y z å ä ö
Icelandic	a á b d ð e é f g h i í j k l m n o ó p r s t u ú v x y ý þ æ ö

TABLE 1

alphabet 15th) might highlight an important problem and I found evidences in Karen's research that underline this theory as she writes "...one goal of adopting the writing system of another language is 'easy transfer' to that language..." by referring back to comments from Coulmas (1989):

Where the phonology and other structures of a particular language differ very much from those of the major contact language, every feature that favors transferability frustrates faithful mapping. The Cyrillic orthography for Karakalpak, a Turkic language of central Asia, is a typical example. At a linguistic conference in 1954 it was condemned for its inadequacy... in spite of great differences between Russian and Karakalpak, the Cyrillic alphabet was used in a way very similar to the Russian orthography. Transferability was high, but the faithful representation of speech was low. (1989:236-237)

Another highlighted case, showing similar patterns to the problem of the Irish Gaelic language writing system is:

The adaptation of Tibetan for Tibeto-Burman languages (ethnic/religious identity reasons) causes an imbalance of written and spoken language, that means people psychologically read the proto-form of their language and in order to figure out pronunciation and its meaning they have to bridge the gap mentally from one to another. This process takes time, persistence, discipline and makes usage much more difficult. (Chamberlain 2004; see 8.3.1).

In Karen's (2006, p79) research I found one of the first recommendations for the design of the adaptation/reformation of languages, as she summarizes the following points from her discussion as important:

1. Linguistic analysis must not be taken lightly.
2. Phonemes, not phones, should be written.⁹
3. Differences which mother-tongue speakers do not perceive should not be written.
4. Sound differences perceived by mother-tongue speakers should be written.
5. Phonemic and morphophonemic analysis can provide valuable predictions about what sound differences are likely to be perceived.
6. Orthography decisions should take into account the intuitions of the speakers and their needs and preferences, and not be based on foreigners' needs or desires.

The author (2006, p155) furthermore outlines two main challenges for adapting writing system such as "*finding solutions for features which differ from the language(s) in which the writing system is already used*" and "*not carrying over unnecessary burdens inherent in the system*" and also describes seven possibilities to symbolize features that are not framed within the writing system being adapted:

1. *assigning different values to symbols not needed due to phonological differences*
2. *combining letters to form a digraph or trigraph*
3. *slightly modifying the appearance of an existing symbol*
4. *adding a phonetic symbol (Latin script)*
5. *using special ligatures*
6. *using diacritics, underline or punctuation marks*

She sees the adaptation is the speech as speakers pronounce certain sounds slightly differently and are usually not conscious of the difference. Therefore by adapting a system, "*the same glyphs can serve for sounds that are the same or slightly different.*" Most Roman alphabets contain somewhere between 20 (Biali in Benin) and 46 letters (Duruma in, Kenya) (Hartell 1993), which depends on how digraphs are used and if unused letters are being left out. For example in French (27 letters) the <w> is still included as a handful of loan words from English and German contain <w>; Spanish retained <k> and <w>; Vietnamese uses <j>, <w>, and <z> in foreign loans even though these letters are not part of the initial alphabet. Karen (2006, p156)

The UNESCO highlight in their article¹⁰: "*The technical, linguistic basis is only part of the story. Linguists may plead for a writing system to take the structure of the language fully into account; indeed, it may be that the linguistic reality and its analysis offer solutions which are elegant and relatively simple. However, a writing system is not only a linguistic reality, it is also a social convention, to be adopted and used by a community of speakers with their particular history, social relations, political context and cultural heritage. Thus all these factors must form part of decisions about how to write a language.*"

(http://www.unesco.org/education/languages_2004/keyelements_developing.pdf)



www.tiro.nu/Articles/sylfaen_article.pdf

[3] Vietnamese characters in Sylfaen.

[4] A few of my favourite African diacritics from Sylfaen.

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MY QUESTION AND ANSWERS FROM A VISUAL POINT OF VIEW

1. Can a designer create a typeface for a language he does not speak?

John Hudson (2000)¹⁰ writes in his article *Sylfaen : Foundations of Multiscript Typography* - "...There are examples of type designers who excelled in designing type for language they could not speak or read and who, in many cases, exceeded the achievements of their native colleagues. Perhaps the most dramatic example is that of the Indian punchcutter Ranu Ravji Aaru, who cut celebrated original types for many of India's scripts and languages during the late 1800s, despite being illiterate even in his own language..."

My point of view is that a typeface creation is always a collaborative process, involving ideally all research areas. I choose the same argument as in my research about community identity: If a designer seeks to create an application for a community, that carries a community or national identity, he/she or they will have to involve deeply the people he/her are designing for, because the people will be the ones using the created application.

Therefore it is possible that a person creates a typeface in collaboration and advise of a number of people if that person is respectful of the communities traditions, conventions, history and social interaction.

2. Is it possible to create a basic Irish Gaelic typeface consisting of a complete ligature system reflecting the spoken Irish Gaelic language?

It is not impossible the research so far suggests that with the help of linguists and a Irish Gaelic community as well as Irish Gaelic non-speakers an adaptation of a writing system can improve the weak link of the Irish Gaelic language revival which is that imbalance of written and spoken account. The challenge here is not to fall back into the past or trying to event something complete different, as there are reasons to remain within in the latin alphabet, because of geographical, business orientated, historical and social conventional reasons that outline life and living in modern Ireland.

The cases of Vietnam and Iceland are most interesting: John Hudson (2000) sees the modern Vietnamese orthography is probably the most complex implementation of the Latin script: "... It is based on a system codified by a French Jesuit scholar and missionary, Alexandre de Rhodes, in 1651, and the basic Vietnamese alphabet consists of 37 letters. Additionally, the eleven vowels can be spoken in six different phonemic tones, which are indicated in text with a system of diacritic markers. A fairly simple Vietnamese text may easily require in excess of 80 letters..."

Icelandic is of particular interest as Sigurdson (2000)¹¹ writes that "...Scholars of Old Icelandic generally agree that Icelandic literature was influenced by the Gaelic world where oral literature was highly developed and written prose sagas were produced in the vernacular. Ireland and Iceland are the only countries in NW Europe where sagas of this kind were written down. The problem arises however when the importance of the influence on Icelandic culture has to be assessed. In this book, the author looks at the possible channels by which Gaelic influence could have reached Iceland and looks at the nature of the numerous parallels in different genres of Old Icelandic literature with Gaelic literature, especially Old Irish..."

Wikipedia¹² writes "...Iceland has been a very isolated and linguistically homogeneous island historically, but has nevertheless beheld several languages. Gaelic was native to many of the early Icelanders, the Icelandic or Norse language however prevailing, albeit absorbing Gaelic features. Later, northern trade routes brought German, English, Dutch, French and Basque. Some merchants and clergymen settled in Iceland throughout the centuries, leaving their mark on culture, but linguistically mainly trade, nautical or religious terms. Excluding these and Latin words, Icelandic has altered remarkably little since settlement, the island's residents living in seclusion..."

On the website www.gaeilge.org/irish.html I found out that: "...Ireland was invaded many times prior to the coming of the Celts. These invaders (Parthalonians, Nemedians, Tuatha De Danann, Fir Bolg and Milesian Celts, to name a few) are all considered to be "ancient" inhabitants of Ireland...Ireland was a land of many diverse languages, cultures and peoples (even though the population must have been small). Old Irish is the earliest variant of the Celtic languages in which extensive writings still exist... was in Ogham (sometimes referred to as the "tree-alphabet")... when St Patrick set foot on Irish soil in AD 432, he not only brought Catholicism but also the Roman alphabet. Thus from 500-900 A.D., Old Irish, as it is known, was recorded using the Roman alphabet...the Viking invasions between the eighth and tenth centuries A.D. left lasting traces on the culture and language of the population, and many typically Scandinavian words are found in modern Irish, in particular those relating to ships and navigation..."

The Icelandic language has very distinctive glyphs and is bold enough in its execution. It has a distinctive identity. The above accounts suggest even though it is established that Icelandic is a Germanic language - there are connections to the Irish Gaelic language throughout its development as people at that time lived side by side, whether they were slaves, tradesman, servants, freeman or wives. It seems that not everything is as clear cut as it seems.

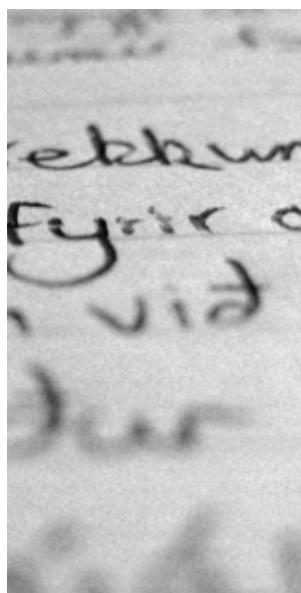
I think that Vietnamese and Icelandic are examples of intelligent, creative adaptation of languages within the latin alphabet and I hope that inspiration of those could lead to a possible extension in the writing system of Irish Gaelic, sensibly and logically, that has the possibility to gap the imbalance between written and spoken account of the language.

My approach for amendments will be subtle, simple as less design as possible and hopefully timeless - as will not follow a trend - If I follow the advise of the researched theory and the inspiration I base my work on I hope to develop an efficient and workable system.

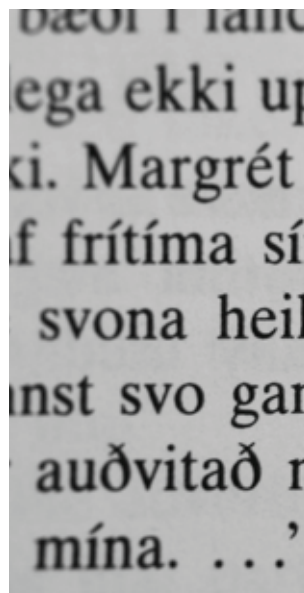
This system will be a work in progress and will include lenition and eclipses. Diphthongs would be good to include but it is sensible not to touch them as the time frame would not allow an in-depth study with an appropriate application - I expect I will be hit by a stroke of genius, which is rather unlikely.

I state as well, that this research is an experiment and we all know that experiment can go wrong. But most importantly - experiments may lead to new insights and may be a source of innovation. My practical research will also follow the guidelines by Dieter Rams, who defines good design with ten principles as follows:

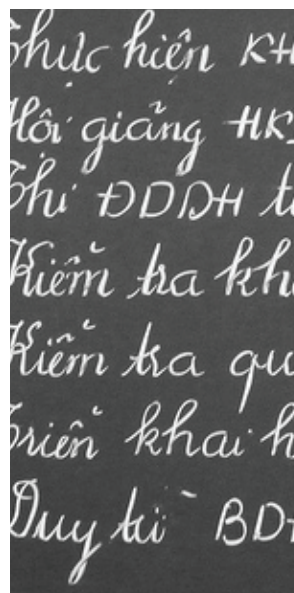
1. Innovative
2. A product useful
3. Aesthetic
4. Understandable
5. Unobtrusive
6. Honest
7. Long-lasting
8. Thorough down to the last detail
9. Environmentally friendly
10. As little design as possible¹³



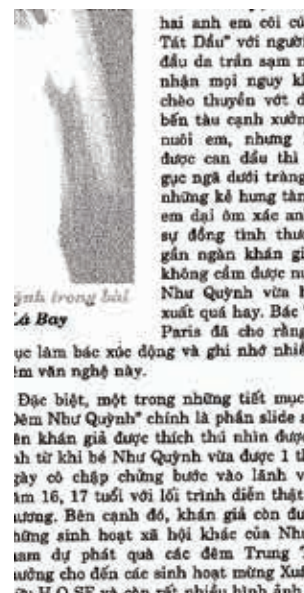
Icelandic Hand Writing
Source: http://en.wikipedia.org/wiki/File:Icelandic_handwriting.JPG



Icelandic Text Extract
Source: http://upload.wikimedia.org/wikipedia/commons/1/1a/Icelandic_Text_Extract.jpg



Vietnamese Hand Writing
Source: <http://media.smashing-magazine.com/wp-content/uploads/2010/05/typography88.jpg>



Vietnamese Text Extract
Source: http://www.dannydancers.com/News/Moi19991106_1.jpg

¹ Isac, Daniela; Charles Reiss (2013). I-language: An Introduction to Linguistics as Cognitive Science, 2nd edition. Oxford University Press. ISBN 978-0199660179.

² Crystal, David (2003). "Graphetics". Dictionary of Linguistics and Phonetics. The Language Library (5th ed.). Malden, MA: Blackwell. ISBN 978-0-631-22663-5. Retrieved October 10, 2011.

³ Klemp, Klaus and Ueki-Polet, Keiko (2011). Less and More: The Design Ethos of Dieter Rams. Die Gestalten Verlag. ISBN 978-3-89955-39-0

⁴ Karan, Elke. (2006). Writing System Development and Reform: A Process. (M.A. Theses in Linguistics

at the University of North Dakota). Retrieved from http://arts-sciences.und.edu/summer-institute-of-linguistics/theses/_files/docs/2006-karan-elke.pdf

⁵ <http://dictionary.reference.com/browse/orthography?s=t>

⁶ WordNet © 2.0, © 2003 Princeton University <http://dictionary.reference.com/>

⁷ The Free On-line Dictionary of Computing, © 1993-2005 Denis Howe <http://dictionary.reference.com/>

⁸ <http://en.wikipedia.org/wiki/Unicode>

⁹ <http://www.voxforge.org/home/docs/faq/faq/what-is-the-difference-between-a-phone-and-a-phoneme>

between-a-phone-and-a-phoneme A phoneme is the smallest structural unit that distinguishes meaning in a language. Phonemes are not the physical segments themselves, but are cognitive abstractions or categorizations of them. On the other hand, phones refer to the instances of phonemes in the actual utterances - i.e. the physical segments - the words "madder" and "matter" obviously are composed of distinct phonemes; however, in american english, both words are pronounced almost identically, which means that their phones are the same, or at least very close in the acoustic domain.

¹⁰ http://portal.unesco.org/education/en/ev.php-URL_ID=28341&URL_DO=DO_TOPIC&URL_SECTION=201.html

¹¹ Gisli Sigurthsson.(1988).Gaelic influence in Iceland:historical and literary contacts:a survey of research.Reykjavik:Bokautgafa Menningarsjofhs

¹² http://en.wikipedia.org/wiki/Languages_of_Iceland

¹³ Klemp, Klaus and Ueki-Polet, Keiko (2011). Less and More: The Design Ethos of Dieter Rams. Die Gestalten Verlag. ISBN 978-3-89955-397-0

MY QUESTION AND ANSWERS FROM A LANGUAGE POINT OF VIEW

I find it very difficult to truly understand Irish Gaelic and maybe it is a German habit to look for proper manual that shows an overview in detail - easy to understand, ideally in forms of tables with nice graphics that are easy on the eye; a complete summary of all the functions, differences, exceptions, grammatical rules, orthography, similarities to other languages etc. To make it short, I didn't find anything like this, but what comes close to this query is the work and research of Raymond Hickey, Chair of Linguistics, from the Essen University in Germany. Prof. Hickey is an Irish Gaelic speaker how wrote several pieces about and surrounding the Irish Gaelic language. In his *'Typology of Modern Irish'* he writes about the deep rooted key elements of Irish Gaelic and points to languages that have similar occurrences.

In my first part of the investigation into theory was based on my initial instinct as a designer, which means that I was looking for research that is attached to visual output and how to develop orthography as well as how other languages dealt creatively with the latin alphabet.

This second part will deal with the Irish Gaelic language itself. The relevant parts of Hickey's (2013)¹⁴ presentation *'Typology of Modern Irish'* are palatalisation, initial mutation (sandhi phenomena), nasalisation and languages that are displaying the sandhi phenomena similar to the initial mutations of Irish.

3. What is palatalisation in Irish Gaelic?

Hickey (2003) outlines palatalisation in Irish Gaelic as a *"synchronic process where a consonant is shifted in articulation towards the region of the palate. It occurs in nominal/adjectival inflections and various word-formational processes. Palatalisation has its origin in the assimilation of consonants to high vowels which followed them, typically in suffixal inflections. In this respect it is similar in origin to umlaut in Germanic."*

He points out the two types of palatalisation which are: a) an alteration where the tongue is lifted by articulation of palatal sounds towards the palate and b) a movement where the tongue is lowered to create sound of non-palatal consonant to palatal vowel. Figures 7 and 8 on the right hand side show how these sounds are created visually.

4. What are initial mutations in Irish Gaelic?

Hickey (2003) describes the initial mutation as a change in the manner and possibly place of articulation of a consonant at the beginning of a word. Such changes were originally sandhi phenomena. This is paralleled by the nasalisation of words preceded by nasals. Wikipedia¹⁵

defines Sandhi as a term that stands for a wide variety of phonological processes that occur in a language at morpheme or word boundaries.

Thus Sandhi is most visible in the phonology in Indian languages, it is also common in other languages in the world. The phonological process can be described as a fusion of sounds spanning the word boundaries, that results in a change how following or immediate surrounding sounds are spoken. There are two types of Sandhi: Internal sandhi (change of sounds within morpheme boundaries) and external sandhi (change of sounds at word boundaries). In French this is called 'liaison', in Italian 'addoppiamento fonosintattico'.

Hickey (2003) describes the that initial mutations are found at the beginnings of words, while palatalisation can be seen at the ends of words. The author elaborates that *"lenition (initial mutations) in Irish essentially involve the change of stops to fricatives; this is both a diachronic phonological process and part of the synchronic morphological process. All stops in the language can become fricatives in an environment for lenition. In addition, /f/ lenites to zero and /s/ lenites to /h/."* On page 21 Hickey outlines the scope of lenition in the verbal area:

No lenition Present, Future

Tá/Bíonn, Beidh

(Examples are from the verb 'to be')

Lenition Past

Imperfect, Conditional

Bhí, Bhíodh, Bhéinn

(Examples are from the verb 'to be')

5. What is Nasalisation in Irish Gaelic?

Hickey writes that nasalisation also known as eclipsis (Irish: urú) is effectively *"a voiced stop changing to its nasal equivalent"* which happens in particular grammatical occurrences such as *seacht ndún* (seven castles). He outlines three stages of nasalisation voiceless, voiced and nasal.

voiceless		voiced		nasal
p	>	b		
		b	>	m

"If one compares seacht with Latin septem one sees that there was originally a nasal at the end of this word which caused the following consonant of a noun to change to a homorganic nasal."

The author points out that in the case of voiceless segments only the first stage of nasalisation is completed such as:

a. capall : a gcapall 'horse' : 'their horses'

b. gúna : a ngúnaí 'dress' : 'their dresses'

Overall he writes that nasalisation only applies to stops; fricatives and nasals are unaffected with the exception of /f/

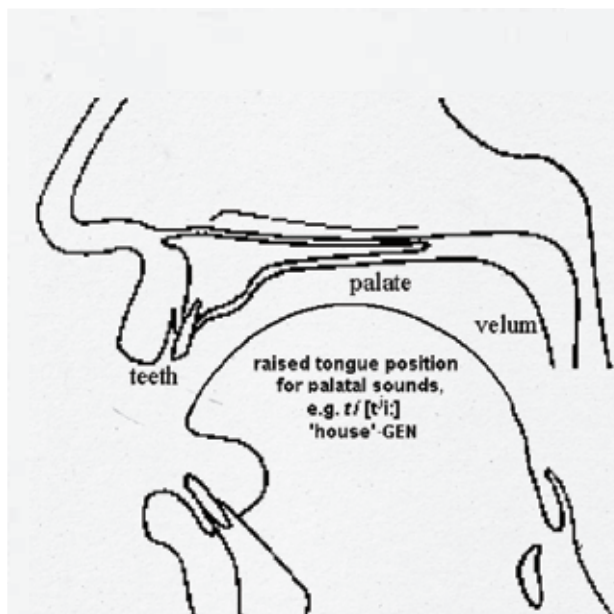


FIGURE 7 Palatalisation in Irish - Speech for Palatal Sounds Hickey, Raymond (2013), 'Typology of Modern Irish', page 17 retrieved from Source: http://www.uni-due.de/IEN/Typology_of_Modern_Irish.pdf

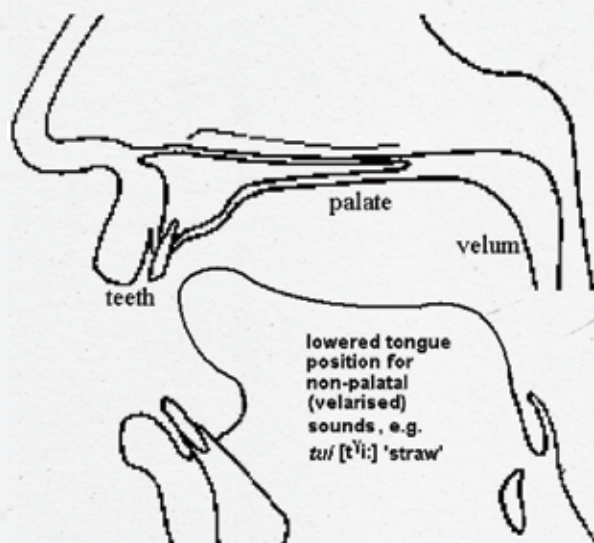


FIGURE 8 Palatalisation in Irish - Speech for Non-Palatal Sounds, Hickey, Raymond (2013), 'Typology of Modern Irish', page 18 retrieved from Source: http://www.uni-due.de/IEN/Typology_of_Modern_Irish.pdf

which nasalises to /v/ for example:

- a. fir : caint na [v-] bhfear 'men' : 'talk of the men'
- b. focal : a [v-] bhfocail 'word' : 'their words'

Other varieties and languages showing sandhi phenomena comparable to the initial mutations of Irish are: Tuscan Italian, Andalusian, Canary Spanish, Fula, Southern Paiute, Nivkh, Danish, Finnish, Estonian, Scottish Gaelic and Welsh.

5. What does the study of Prof. Hickey's 'Typology of Modern Irish' mean for this research?

The study of Prof. Hickey is in line with Dr. Buttmer's recommendations (see page 11) to focus on two major unusual phonetical occurrences which are *lenition* and *nasalisation*. It makes sense to focus on these two areas and outline a possible body of work in order to define a system, that has the possibility to embrace the Irish Gaelic language within the latin alphabet and gives the visual appearance a closer connection to the spoken account on one hand and a unique identity similar to the the cases of Icelandic and Vietnamese.

Manifestation of the initial mutations									
Lenition					Nasalisation				
1)	p, b	→	f, v		1)	p, b	→	b, m	
2)	t, d	→	h, γ		2)	t, d	→	d, n	
3)	k, g	→	x, γ		3)	k, g	→	g, ŋ	
4)	f	→	0		4)	f	→	v	
5)	s	→	h						
6)	m	→	v						

FIGURE 9 Palatalisation in Irish - Speech for Non-Palatal Sounds Hickey, Raymond (2013), 'Typology of Modern Irish', page 26 retrieved from Source: http://www.uni-due.de/IEN/Typology_of_Modern_Irish.pdf

¹⁴ Hickey, Raymond (2003), 'Typology of Modern Irish', retrieved from Source: http://www.uni-due.de/IEN/Typology_of_Modern_Irish.pdf
<http://en.wikipedia.org/wiki/Sandhi>

GRAMMAR

INVESTIGATING GRAMMAR, TOOLS, LIBRARIES

Outlining the briefing for the body of work in more depth, I have to decide what is possible to achieve within the given time frame. Irish Gaelic is a very complex language consisting of vowels, simple consonants, aspirated consonants, eclipsed consonants, diphthongs, double consonants and exceptions.

THEORETICAL AND PRACTICAL APPROACH

In order to move forward in this very complex language I use the summary from www.standingstones.com/gaelpron.html which lays out the main rules within Irish Gaelic as follows:

1. Vowels
2. Simple Consonants
3. Aspirated consonants
4. Eclipsed consonants
5. Diphthongs
6. Double consonants
7. Exceptions

Looking at the Grammar it makes sense trying to solve cases which are most imbalanced in written to spoken account, this is where a letter such as 'mh' is pronounced 'v' or 'w'. These cases occur grammatically in aspirated (Lenition) and eclipsed consonants (Eclipsis). Of course diphthongs, double consonants and exceptions would be as well important to look at, but given the time frame it is not possible to draft variations of letters, run user tests and then transfer the working typeface into the final showcase typeface Avow. Michael Robinson and Vicki Parrish published in 2002 a summary of Irish Gaelic grammar on their website www.standingstones.com/gaelpron.html which is very easy to understand for a Non Irish Gaelic speaker like me. *As I am going to do an Irish Gaelic language course in UCC at the end of September, I will show this summary to the teacher at the course and revise contents if necessary. Participating in the course will*

Comparing this to the research on...

also give me access to potential test groups, as it is difficult to pin down people for testing and participating. Robinson and Parrish (2002) outlining the Lenition as followed:

Aspirated consonants (Initial mutations)

Consonants in Irish can undergo a transformation called *séimhiú*, which is somewhat inaccurately (to a real linguist) translated as "aspiration". In the old Irish script this was shown by putting a little dot above the letter. Nowadays Irish is printed using the standard Western alphabet, and the little dot has been replaced by the letter "h" following the consonant. The "h" in Irish is not a letter, it is an operation. ("h" sometimes appears at beginning of a word before a vowel, or in words borrowed from English. It is pronounced the same as in English when used by itself before a vowel.) There is both a broad and a slender version for each. There are a few exceptions to these rules. Broad dh or gh in the middle of a word is usually pronounced "y", such as *fadhb* "fibe" ("problem"). Sometimes broad bh or mh ("w") can result in a combination which is hard to say, like *mo bhróga* ("my shoes"). In that case, a "v" sound is used instead. Also, sometimes a "v" sound occurs when bh or mh is at the end of a word, such as *creidimh* "krej-iv" ("belief").

This means that Lenition are associated with the following consonants: p, t, c, b, d, g, m, f, s. The following shows how these consonants change:

b → bh, c → ch, d → dh, f → fh, g → gh, m → mh
p → ph, s → sh, t → th.

More importantly the change will affect as well the spoken record. Robison and Parrish (2002) are showing in the table below in a comparison the spoken and written account:

Aspirated consonants			
Broad consonant	Pronounced	Slender consonant	Pronounced
bh	Eng. "w"	bh	Eng. "v"
ch	As in "loch" or "chutzpah"	ch	Like the broad version
dh	Like "ch" but based on a "g" sound	dh	Eng. "y"
fh	Silent	fh	Silent
gh	Like "ch" but based on a "g" sound	gh	Eng. "y"
mh	Eng. "w"	mh	Eng. "v"
ph	Eng. "f"	ph	Eng. "f"
sh	Eng. "h"	sh	Eng. "h"
th	Eng. "h"	th	Eng. "h"

(The *h* serves as a notation of lenition (*séimhiú*): *bh, ch, dh, fh, gh, mh, ph, sh, th*). The Eclipsis is the second occurrence I will be investigation and Robinson and Parrish (2002) outlining the these as followed:

Eclipsed consonants (Nasalisation)

*In English, in different grammatical situations, we sometimes change the end of words, such as "child" becomes "children". We also can change the middle of words, such as "man" turns into "men". In the Celtic languages, the beginning of a word can also change. When the first letter of a word changes in what is called *urú* or "eclipsis", the spelling gives first the letter as pronounced, followed by the original letter before it was changed. The following letter combinations at the beginning of a word should be interpreted this way: *mb, gc, nd, bhf, ng, bp, ts, dt*. Note that *bh* is considered to be a single letter!*

This means that Eclipses occur in both consonants and vowels. The 7 consonants that eclipse are: **p, t, c, f, b, d, g**. Mutations that occur if the word begins with a consonant: *b → mb, c → gc, d → nd, f → bhf, g → ng, p → bp, t → dt*.

Eclipses occur for consonants and vowels. Mutations that occur when there is a vowel at the beginning of the word: *a → n-a, e → n-e, i → n-i, o → n-o, u → n-u*.

An example of an eclipse that occurs with vowels is by adding a "t-" to words beginning with vowels. If the vowel is a capital letter at the beginning of the word, the hyphen is dropped. Also, if the word begins with an *s*, you add a *t* before it: *t-a → tA, t-e → tE, t-i → tI, t-o → tO, t-u → tU*.

Eclipsed consonants		
Initial consonant	Eclipsed form	Pronunciation
p	bp	b
t	dt	d
c	gc	g
b	mb	m
d	nd	n
g	ng	ng *
f	bhf	w (broad), v (slender) *
sh	Eng. "h"	sh
th	Eng. "h"	th

Examples:

mbád: pronounce the "m" ("b" is now silent)

gcát: pronounce the "g" ("c" is now silent)

ndinnéar: pronounce the "n" ("d" is now silent)

bhfuilimid: pronounce the "bh" ("f" is now silent)
ngeata: pronounce the "n" ("g" is now silent)

bpeann: pronounce the "b" ("p" is now silent)

dteach: pronounce the "d" ("t" is now silent)

b is always eclipsed by *m*: ar an **mbád** (on the boat)

c is always eclipsed by *g*: leis an **gcát** (with the cat)

d is always eclipsed by *n*: ár **ndinnéar** (our dinner)

f is always eclipsed by *bh*: an **bhfuilimid?** (are we?)

g is always eclipsed by *n*: ag an **ngeata** (at the gate)

p is always eclipsed by *b*: faoin **bpeann** (under the pen)

t is always eclipsed by *d*: a **dteach** (their house)

SOFTWARE

TEST SOFTWARE, FIRST EXPERIMENTS

The testing was successful and therefore this research can now continue. The handwritten typeface might not look very 'high quality', but it will 'do a very good job' in finding and creating a possible ligature system. Most importantly it allows me to change/amend creations while user tests are taking place, so test users will have a direct input in the development.

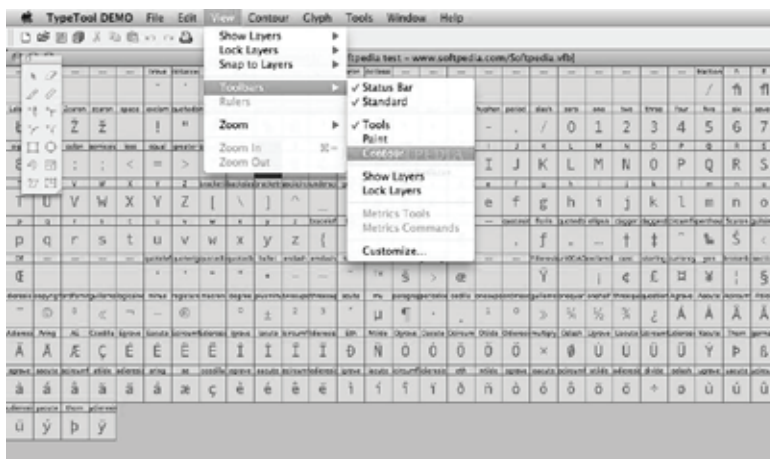
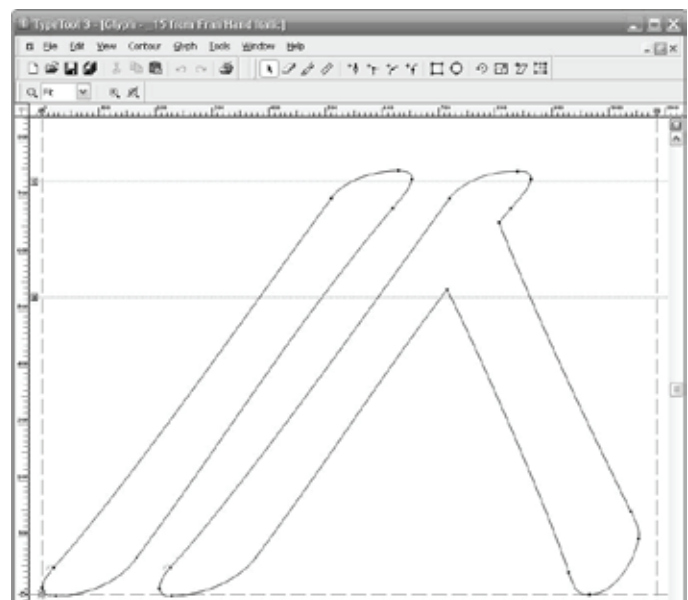
TYPETOOL

TypeTool is a basic font editor for Mac OS and for Windows and includes support for OpenType fonts with up to 65,000 glyphs, Unicode 5.0 support, new bitmap Background and outline Mask layers, improved Bézier drawing with open contours and tangent points, multi-line metrics and kerning editing, superb screen quality autohinting, better printouts, and much more.

For students, hobby typographers and creative professionals who occasionally need to create or customize fonts.

I am using TypeTool from Fontlab to create a the font.

Source: <http://www.fontlab.com/font-editor/typetool>

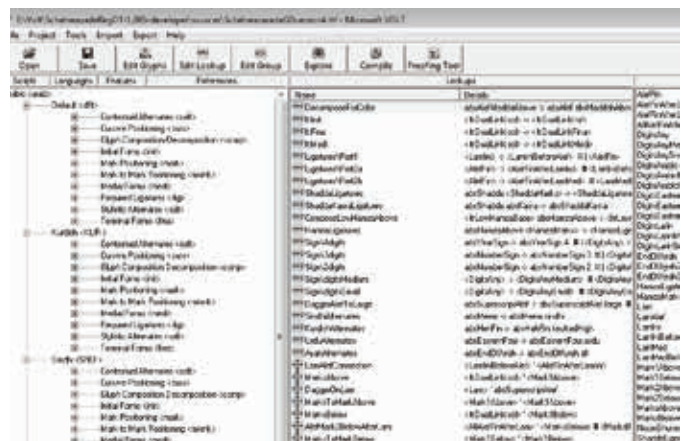


MICROSOFT VOLT

VOLT supports a wide range of substitution and positioning types. It also contains a proofing tool for reviewing the application of layout table lookups. It allows import and export of glyph names, lookups, glyph groups and a full project.

The tool has been used by community members to add OpenType layout tables to various fonts supporting scripts, including Arabic (Naskh and Nastaliq writing styles), Bengali, Cyrillic, Devanagari, Greek, Gujarati, Gurmukhi, Kannada, Latin, Sinhala, Syriac, Telugu, and Thaana.

I am using Microsoft VOLT to assign glyphs to keyboard strokes like **nd** to the new designed ligature. Source: <http://www.microsoft.com/typography/VOLT.mspx>



	vowelRuu			Unassigned
	ID	Unicode	Components	
	109	U+0961	1	

vowelRuu ID: 108 Char: U+0960 Type: Unassigned	vowelRuu ID: 109 Char: U+0961 Type: Unassigned	vowelRuu ID: 110 Char: U+0962 Type: Unassigned

Practical Process of Research

THE FOLLOWING PROCESS IS TESTED AND WORKS WITH THE SOFTWARE I HAVE ACCESS TO:

Ideally writing ligatures should work in Microsoft Word too. I looked up tutorials, however I could not get this to work and instead of focusing on this issue I will use my laptop with Indesign installed for user tests for this research.

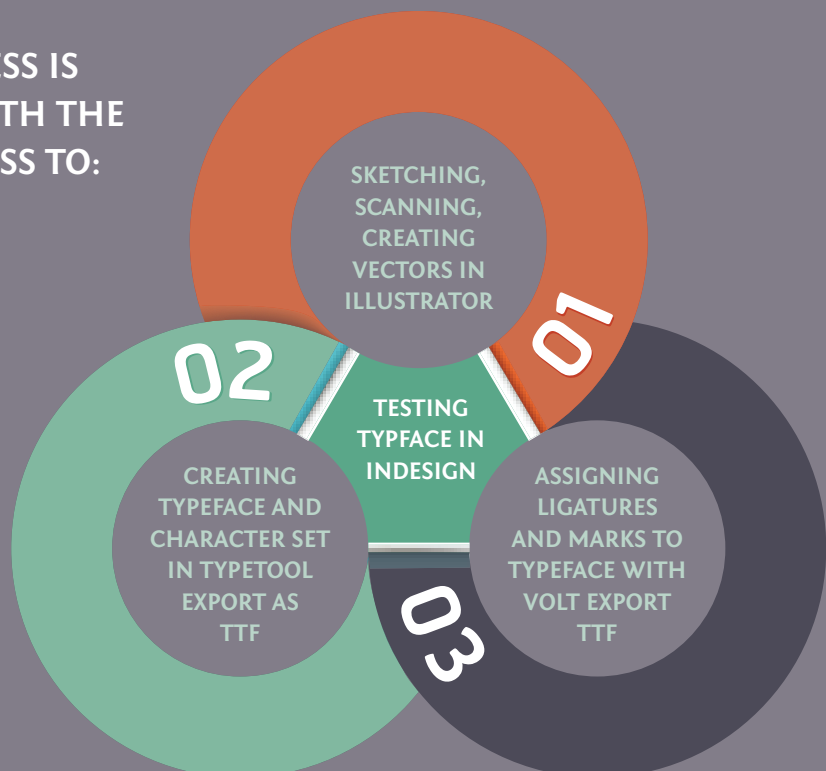


FIGURE 10

STAGE 1 - SKETCHES

I decide to work with a handwriting typeface for user testing as it is quicker to amend and test functionality. I use a thick version, because if it works in bold then it works in light, regular as well. Simplicity is important and working with a bold version helps me to be disciplined and shows problems at a very early stage.

STAGE 2 - TYPEFACE CREATION

First of all 255 characters are the minimum for a typeface these character will have to be created, then depending on cases the new ligatures are added and named properly

STAGE 2 - TYPEFACE CREATION

Assigning ligatures to keystrokes. I finally got it working after testing and trying, sourcing a PC etc. - I took me a month. Once figured out it is actually very easy to assign glyphs to keystrokes.

)	*	+	,	-	.
I	J	K	L	M	N
J	J	K	L	M	N
i	j	k	l	m	n
i	j	k	l	m	n
berthous	Scaron	guilsingll	OE	---	---
0/00	Š	◀	Æ		
copyright	ordfemir	guillemo	logicalnc	minus	register
©	ª	«	¬	—	®
Eacute	Ecircumf	Edieresis	Igrave	Iacute	Icircumf
É	Ê	Ë	Ì	Í	Î
eacute	ecircumf	edieresis	igrave	iacute	icircumf
é	ê	ë	ì	í	î
ai	Ai	oi	Oi	mh	Mh
ā	ā	oi	oi	wh	wh

FIGURE 10

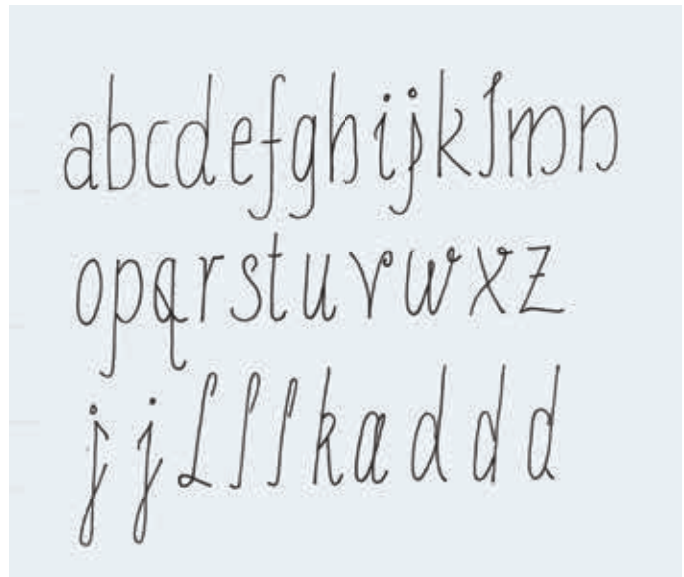


FIGURE 11

The quick brown fox
jumps over the lazy
dog.

12345678910

ABCDEFGHIJKLMNOPQRSTUVWXYZ

abcdefghijklmnopqrstuvwxyz

‘Text sample’

The Latin names of some of these letters are disputed. In general, however, the Romans did not use the traditional (Semitic-derived) names as in Greek: the names of the plosives were formed by adding to their sound.

FIGURE 12

TEST IF KEYSTROKES WORK FOR LIGATURES CREATED WITH VOLT AND CHARACTERS CREATED IN TYPETOOL WORK IN INDESIGN

rd - n d

rd - N d

mh - m h

mh - M h

eo - e o

eo - E o

aøh - a d h

aøh - A d h

oi - o i

oi - O i

ai - A i

ai - a i

CONCLUSION OF THE TESTING PERIOD AND RESULTS

The testing was successful and therefore this research can now continue. The handwritten typeface might not look very 'high quality', but it will 'do a very good job' in finding and creating a possible ligature system.

Most importantly it allows me to change/amend creations while user tests are taking place, so test users will have a direct input in the development. This flexibility is essential to base a typeface on research and feedback, rather than the beauty of a form or the attachment to a certain design.

It furthermore allows as well checking back with historical marks and symbols, to see if they would work in a written text. Discarding these marks and symbols is only possible if I can rectify, why they are not working within the system as Dr. Buttmer suggested in his email from the 17th of July.

Email from Dr. Buttmer:

http://www.vanhamel.nl/wiki/Project:Tionscadal_na_Nod. The above which I hope will open for you shows lettering in early Irish and the employment of abbreviations or contractions to save space when writing in medieval manuscripts. The link and site should provide a starting point or at least a reference point for aspect of the origins and evolution of writing systems in the period. It might also be worthwhile checking for internet citations on Ogham, possibly even for the latter to act as a mode of representation either to consider or reject.

At the end of October I will stop researching forms and shapes and start create ligatures based on the findings of the working typeface for my typeface called Avow, with which I choose to present my research.

PROTOTYPE

 HAND DRAWN TYPEFACE

Handwriting practice sheet for English and Tamil. The sheet is divided into two main columns. The left column contains English alphabet tracing exercises (a-z, A-Z) and Tamil letter tracing exercises (அ-ஊ, ஀-ற). The right column contains English alphabet tracing exercises (a-z, A-Z) and Tamil letter tracing exercises (ஂ-ற, ஃ-ற). The exercises are designed for children to practice letter formation and recognition.

abcdefghijklmnopqrstuvwxyz ÷ \$ dmn fq o pqrstuvwxyz n fi

STAGE 1 - SKETCHES

I decided to work with a handwriting typeface for the first user tests as I thought it was quicker to amend the prototype and test its functionality. I used the bold cut. Simplicity was important and working with a bold version helped me to be disciplined. In addition I hoped that this method would outline emerging problems at an early stage.

STAGE 2 - TYPEFACE CREATION

First of all I created the minimum set of 255 characters to ensure proper testing and then depending on cases added and properly named new ligatures.

STAGE 3 - PROGRAMMING THE LIGATURES

Assigning ligatures to keystrokes was the hardest part. I finally got it working after testing and trying, sourcing a PC etc. - I took me over a month. Once figured out, it was surprisingly simple to assign glyphs to keystrokes.

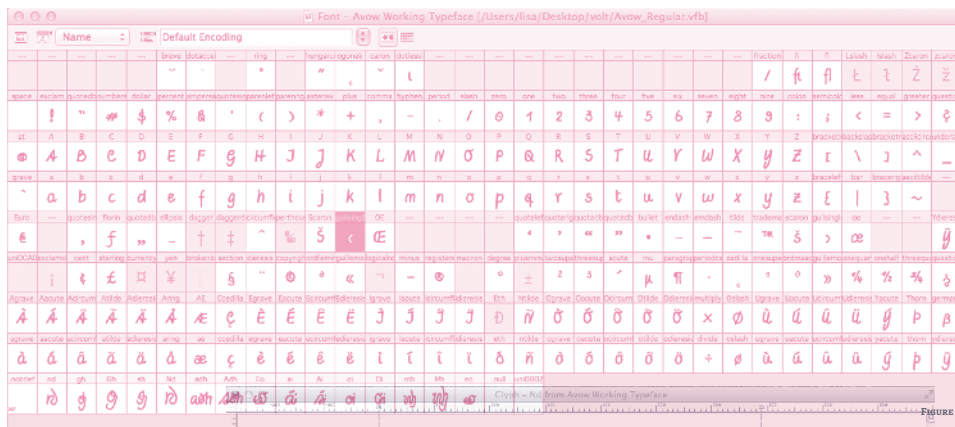


FIGURE 1

Prototype and Testing

SKETCHING,
SCANNING,
CREATING
VECTORS IN
ILLUSTRATOR

CREATING
TYPEFACE AND
CHARACTER SET
IN TYPE TOOL
EXPORTING AS
TTF

ASSIGNING
LIGATURES AND
MARKS TO
VOLT EXPORTING
TTF

PRACTICAL PROCESS OF RESEARCH

THIS PROCESS WAS TESTED AND WORKED WITH THE SOFTWARE I HAD ACCESS TO:

Note: Ideally writing ligatures should work in Microsoft Word too. I looked up tutorials, however I could not get this to work in MS Word. Instead of focusing on this issue, I used Indesign on my laptop for the user tests.

FIGURE 2

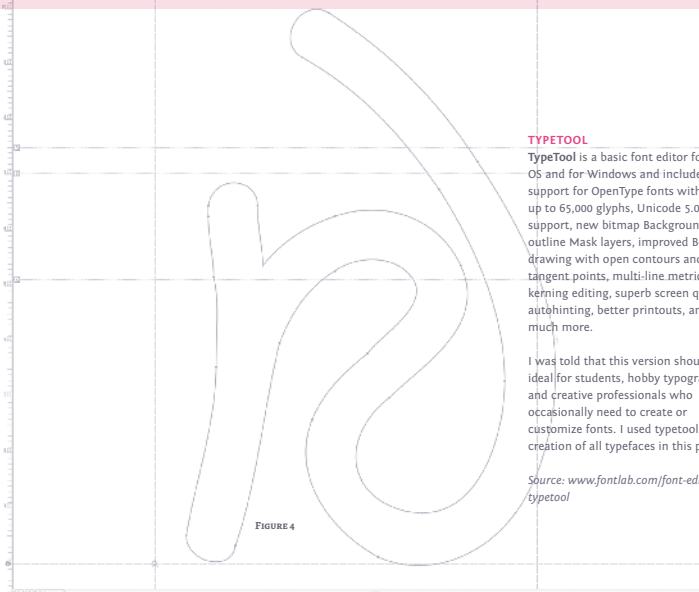


FIGURE 4

TYPE TOOL

TypeTool is a basic font editor for Mac OS and for Windows and includes support for OpenType fonts with up to 65,000 glyphs, Unicode 5.0 support, new bitmap Background and outline Mask Layers, improved Bézier drawing with open contours and tangent points, multi-line metrics and kerning editing, superb screen quality autohinting, better printouts, and much more.

I was told that this version should be ideal for students, hobby typographers and creative professionals who occasionally need to create or customize fonts. I used type tool for the creation of all typefaces in this project.

Source: www.fontlab.com/font-editor/type-tool

TYPEFACE - SAMPLE TEXT

! " # \$ % & ' () * + , -
Bhí ár gceannābh síos go talan
a' piocāh linn 's ár napruín lán.
8 9 : ; < = > ? @ A B C D E F G
Mise is tuisce a d'ardāg m'anārc
H J K L M N O P Q R S T U V
Nuār a chualamar fuām na mādí rānā.
W X Y Z [\] ^ _ ` a b c d e
Ní fhéadfānn a rá an cúigear nō seisear
f g h i j k l m n o p q r s t u v
De fhearabih a bhí istig sa mbád.
w x y z { | } ~ Ä Å Ç È Ñ Ò Ü Á
Bhí duine acu thlar ina deireāh á stiurāh
à â ã ä å ç è é ê ë ì í î ï ñ ò ï
Js gan aon chor as ach oiread leis an mbás.
ô õ ö ü û ü ü ° & £ § • π β ©
™ ' " Å Ø μ π ° ° æ ø ð Å Ä Å
f Å Å « » ... Å Å Õ Æ œ --
The quick brown fox jumps over the lazy dog.
“ ” “ ” ÷ ü y / € < > f l à . , , ä
1 2 3 4 5 6 7 8 9 1 0
Ä Ä È È J J J J Ö Ö Ö Ö U U U U ^
~ ø ~ . . . n d / q / g / sh / r d /
ä b c d e f g h i j k l m n o p q r s t u v w x y z
āāh / āāh / āāh / āāh / āāh / āāh / āāh / āāh

Text written with provisional handwritten typeface

MICROSOFT VOLT
VOLT supports a wide range of substitution and positioning types. It also contains a proofing tool for reviewing the application of layout table lookups. It allows import and export of glyph names, lookups, glyph groups and a full project.

The tool has been used by community members to add OpenType layout tables to various fonts supporting scripts, including Arabic (Naskh and Nastaliq writing styles), Bengali, Cyrillic, Devanagari, Greek, Gujarati, Gurmukhi, Kannada, Latin, Sinhala, Syriac, Telugu, and Thaana.

I used Microsoft VOLT to assign glyphs to keyboard strokes like the 'nd' to the new designed ligature. Source: www.microsoft.com/typography/VOLT.mspx

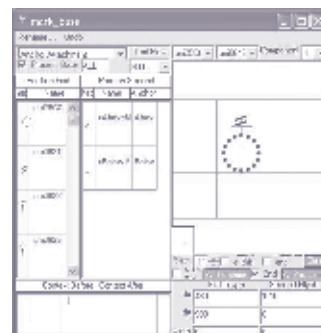


FIGURE 5

SUCCESSFUL TEST OF ASSIGNED KEYSTROKES OF LIGATURES CREATED WITH VOLT AND CHARACTERS CREATED IN TYPE TOOL

n d āāh - a d h
N d āāh - A d h
m h ōi - o i
M h ōi - O i
e o āi - A i
E o āi - a i

FIGURE 6

rr rr rr rr rr rr

@ ^ - ° ¨ ¨ ¨ ¨ = - () /
√ " " * +
< ! ! ! | ° # \$ € % & { }
~ [] ^ ^

1 2 3 4 5 6 7 8 9 0 : ; < >

Àèh aèh Aèh Ƶ ƶ œ

ā ī ō Ō ù Ù ʏ ʝ

A Bb Cc Dde E Ff Gg Hhh Iij J Kk Ll Mm Nn Oo Pp Qq

Rr Ss Tt Uu Vv Ww Xx Yy Zz

USER TESTS

I tested this concept with four children (*neighbors - attending primary school and learning Irish Gaelic*), my partner and extended family. Although the ligatures were perceived with interest and individually well liked, once the test typeface was put in practice (*see sample text on the inside*), there were difficulties to make sense of the ligatures highlighted in green ‘mh’ and ‘gh’. Overall the ligatures were individually easy to understand - in context of a text - however, they were felt to be difficult to place or understand.

This practical test underlined two issues - *perception of ligatures individually and in context of a piece of text on one side and the mental switch of an already learned context of a language to new elements/ revisions on the other*. The user tests show on a practical note that some ligatures like ‘adh’ (note

abcdefghijklmnopqrstuvwxyz
opqrstuvwxyz
j j l l l k a d d d

Karan, Elke. (2006). *Writing System Development and Reform: A Process*. (M.A. Theses in Linguistics at the University of North Dakota). Retrieved from http://arts-sciences.und.edu/summer-institute-of-linguistics/theses/_files/docs/2006-karan-elke.pdf

DRAWING TYPE

DRAWING BASIS TYPEFACE

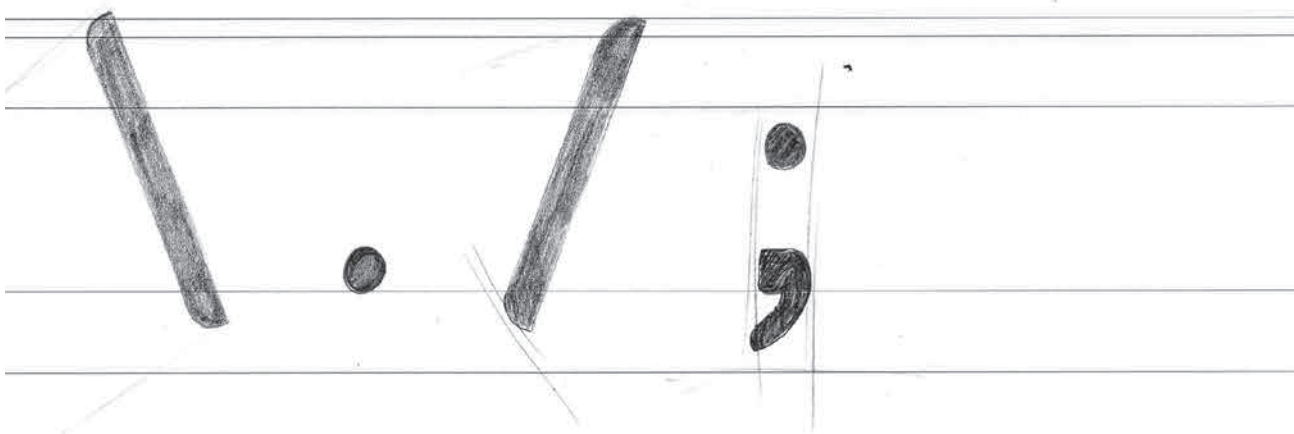
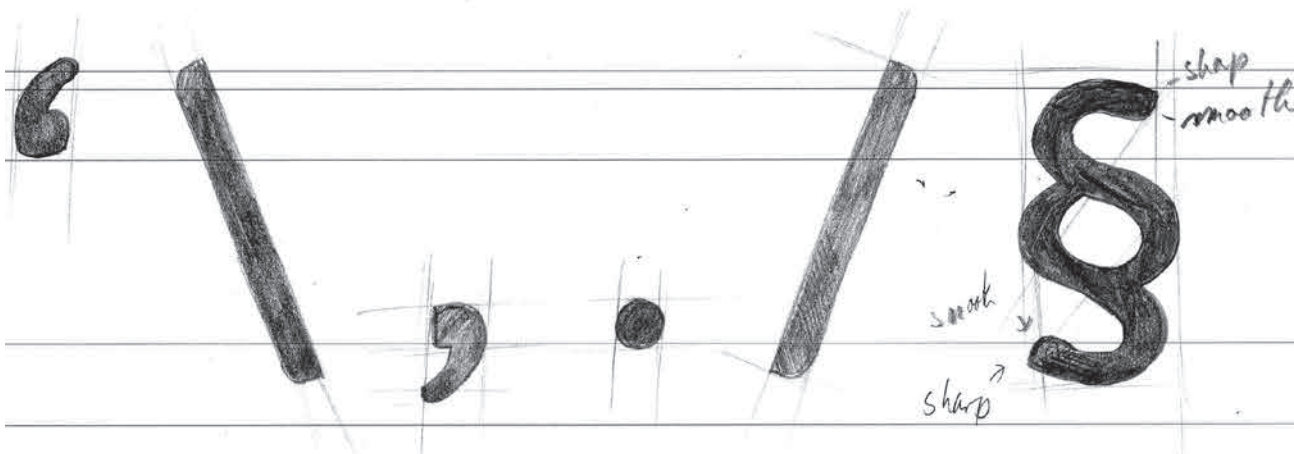
From here now on I will refer of Concepts Two and Three to 'Avow As Gaeilge'. It simply means 'Avow' my provisional typeface 'in the Irish language'. The first step is to create a minimum amount of glyphs to outline my concept with my prototype typeface.

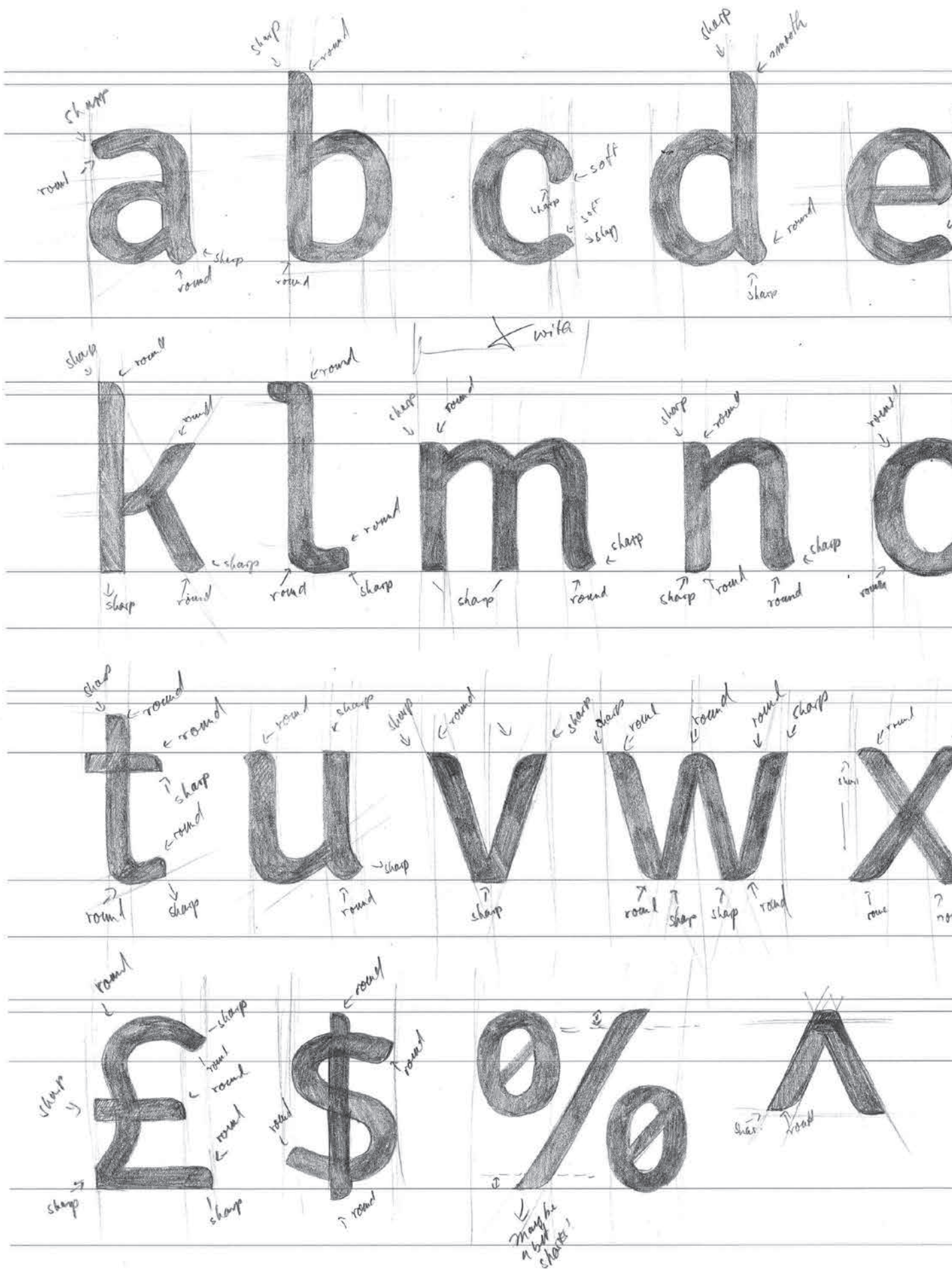
APPROACH

On the next pages I show the drawings of an alphabet that will form the basis of my concept. I drew a full lowercase, uppercase alphabet including numbers and graphemes. Although knowing that I will not be able to finish all glyphs, it is important to sketch the full set in a flow. This project will not end with the Master Thesis. I wish to develop a complete working high quality typeface.

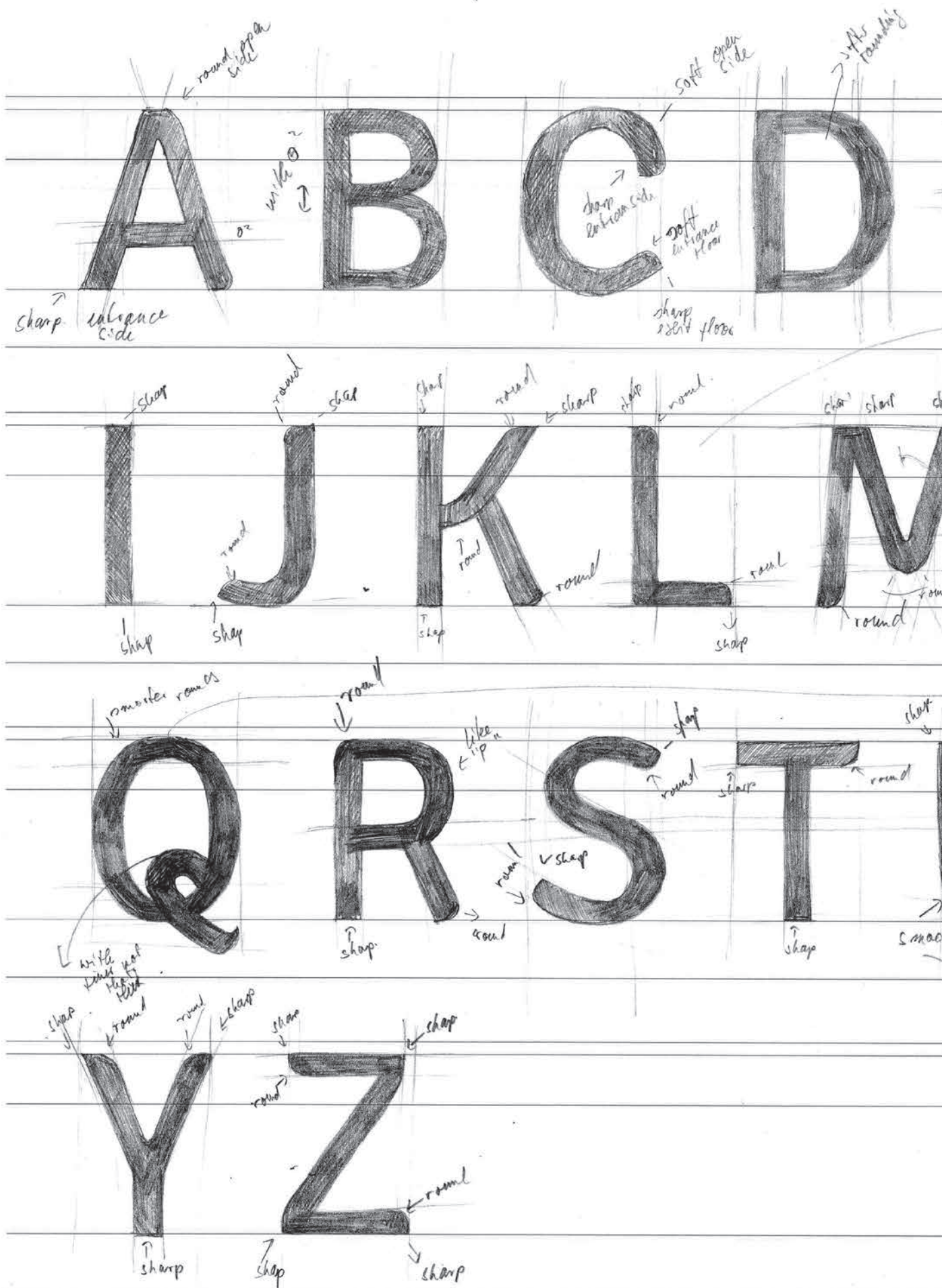
On the following pages I outlined the design practice so far. Drawing the lowercase and uppercase alphabet, vectorising the drawings in Illustrator. Through online tutorials such as: <http://www.youtube.com/watch?v=yI-7e4nRNus> and <http://www.youtube.com/watch?v=C234uNmTJBU>.

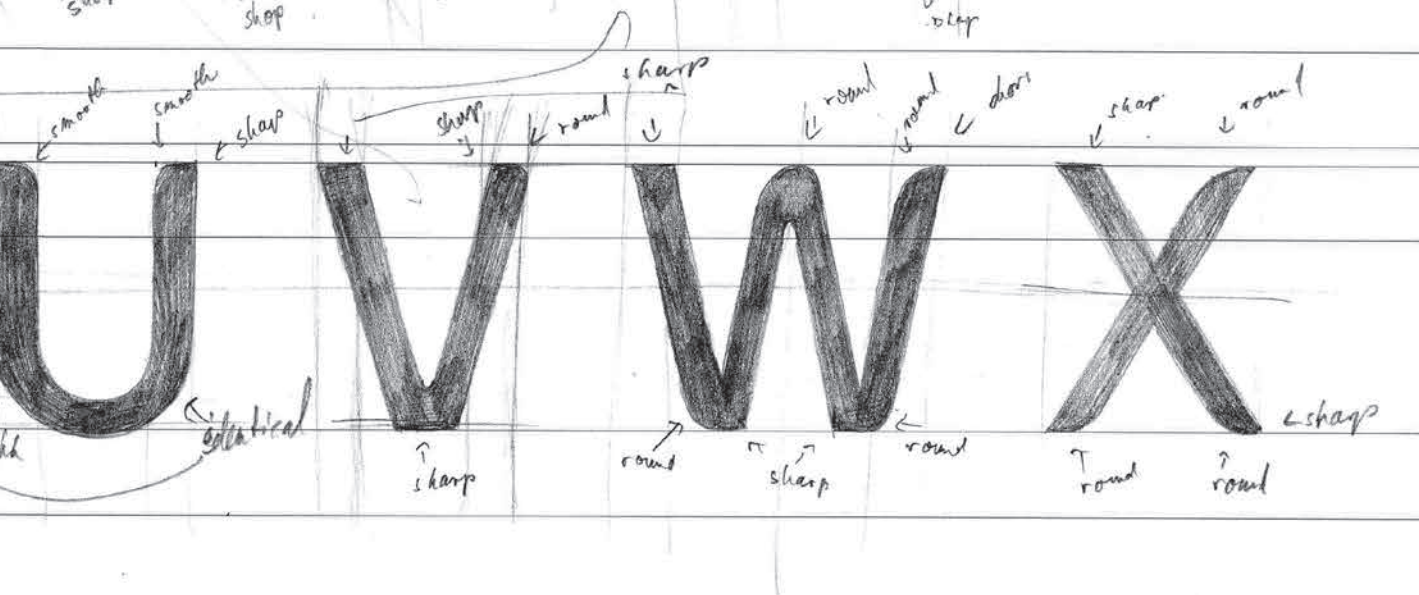
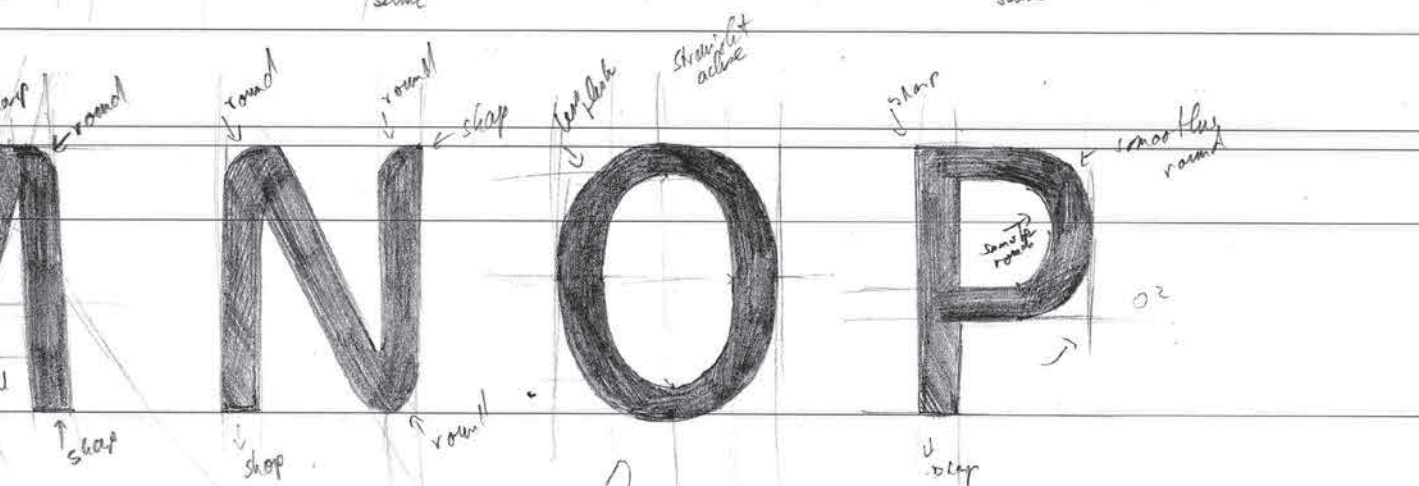
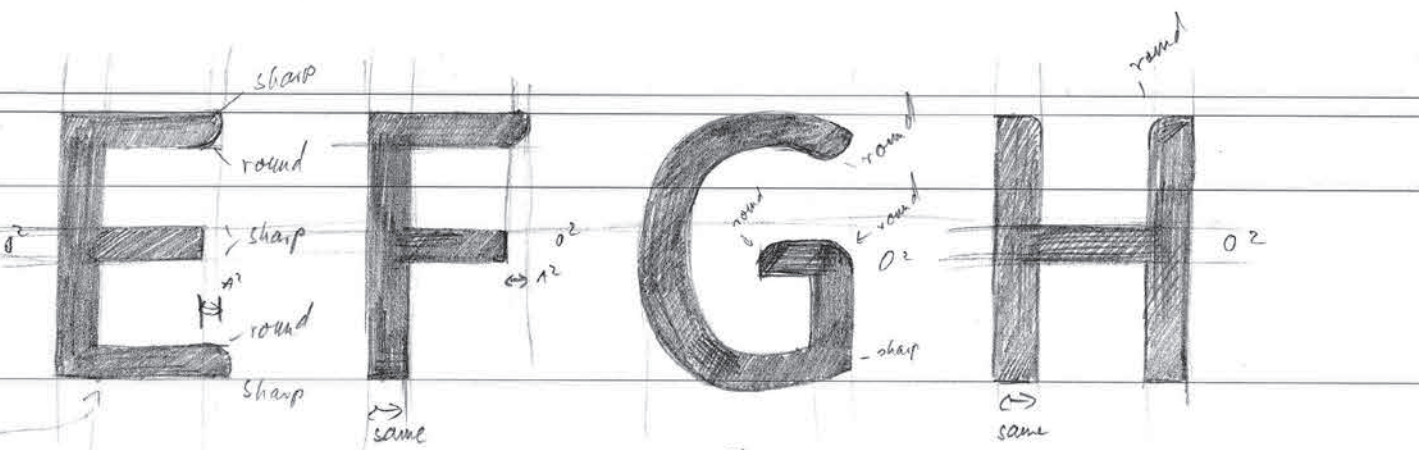
This approach was then discarded as I found that it is more precise to draw the letters straight in Typetool.











VECTOR TYPE

VECTORISING BASIS TYPEFACE

a b c d e

k l m n o





E F G H

N O P

U V W X

TYPE TOOL

CHANGING APPROACH DRAWING BASIS TYPEFACE

As mentioned before I discarded vectorising the drawings in Illustrator and began drawing the glyphs straight in TypeTool.

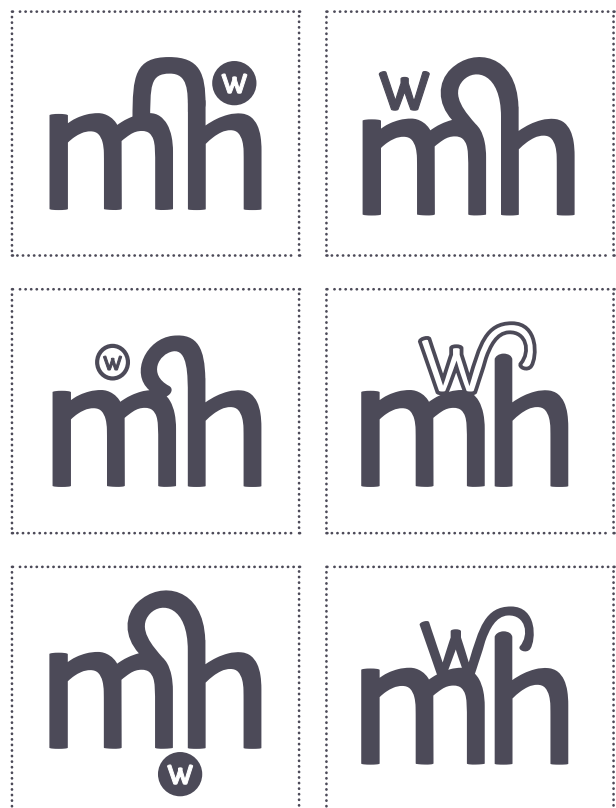
MINIMUM CHARACTER SET

On the right hand side pictures a screenshot of the to date developed set of glyphs (5th revision). Since taking this screenshot this character set has already undergone the 6th revision (the graphemes were positioned higher and made thicker). The character set shown here and at the end of the Thesis period will not be hinted individually - autohinting will be applied. It will be in a prototype stage, as there are still 26 *ligatures* for a full set for lenition and eclipsis to be developed.

On the following pages I show every single letter drawn in typetool so far.

The next step will be to draw the first sets (concepts) for the ligatures with and without graphemes for the lenition. Then I will test the drawing with myself and my test group and my tutors and pro's and con's will be discussed. On the basis of the outcome of the discussions, I will decide on the most appropriate system and then vectorise this in TypeTool.

The programming of the ligatures will afterwards undertaken in Microsoft Volt and sample texts will be written and the ligatures will be put to practice and amended until found appropriate enough for a prototype in order to proof/review my research question. The same process will be repeated for the character sets (concepts) for the eclipsis.



Rough drafts explaining the concepts, ligatures showing the pronunciation. The drafts are only showing the elements and function and should not be seen as graphical solutions.

Font - Avow_Type [/.../Current_typeface/avow_test_metrics-2.vfb]															
Name		Default Encoding													
---	---	---	---	---	breve	dotacce	---	ring	---	hungaru	ogonek	caron	dotlessi	---	---
					˘	˙		˚		˛	˜	ˇ	ˆ		
---	---	---	0019	---	---	---	---	---	fraction	fi	fl	Lslash	Islash	Zcaron	zcaron
									/	fi	fl	Ł	ł	Ž	ž
space	exclam	quotedb	numbers	dollar	percent	ampersa	quotesin	parenlef	parenrig	asterisk	plus	comma	hyphen	period	slash
	!	"	#	\$	%	&	'	()	*	+	,	-	.	/
zero	one	two	three	four	five	six	seven	eight	nine	colon	semicolon	less	equal	greater	question
0	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?
at	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
@	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
P	Q	R	S	T	U	V	W	X	Y	Z	bracketl	backslas	bracketr	asciicirc	undersco
P	Q	R	S	T	U	V	W	X	Y	Z	[\]	^	_
grave	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
`	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
p	q	r	s	t	u	v	w	x	y	z	bracelef	bar	bracerig	asciitilde	---
p	q	r	s	t	u	v	w	x	y	z	{		}	~	
Euro	---	quotesin	florin	quotedb	ellipsis	dagger	daggerd	circumfl	perthous	Scaron	guilsingl	OE	---	---	---
€		,	f	„	...	†	‡	^	‰	Š	<	Œ			
---	quotelef	quoterig	quotedb	quotedb	bullet	endash	emdash	tilde	tradema	scaron	guilsingl	oe	---	---	Ydieresis
	‘	’	“	”	•	—	—	~	™	š	>	œ			ÿ
uni00A0	exclamd	cent	sterling	currency	yen	brokenb	section	dieresis	copyright	ordfemin	guillemo	logicaland	minus	register	macron
	¡	¢	£	¤	¥	¦	§	¨	©	ª	«	¬	–	®	
degree	plusminu	twosup	threesup	acute	mu	paragrap	periodce	cedilla	onesupe	ordmas	guillemo	onequar	onehalf	threequ	question
°	±	²	³	´	μ	¶	·	¸	¹	º	»	¼	½	¾	¿
Agrave	Aacute	Acircum	Atilde	Adieresis	Aring	AE	Ccedilla	Egrave	Eacute	Ecircum	Edieresis	Igrave	Iacute	Icircumf	Iidieresis
À	Á	Â	Ã	Ä	Å	Æ	Ç	È	É	Ê	Ë	Ì	Í	Î	Ï
Eth	Ntilde	Ograve	Oacute	Ocircum	Otilde	Odieresis	multiply	Oslash	Ugrave	Uacute	Ucircum	Udieresis	Yacute	Thorn	germand
Ð	Ñ	Ö	Õ	Ô	Õ	Ö	×	Ø	Ù	Ú	Û	Ü	Ý	Þ	ß
agrave	aacute	acircumf	atilde	adieresis	aring	ae	ccedilla	egrave	eacute	ecircumf	edieresis	igrave	iacute	icircumf	iidieresis
à	á	â	ã	ä	å	æ	ç	è	é	ê	ë	ì	í	î	ï
eth	ntilde	ograve	oacute	ocircumf	otilde	odieresis	divide	oslash	ugrave	uacute	ucircumf	udieresis	yacute	thorn	yidieresis
ð	ñ	ö	õ	ô	õ	ö	÷	ø	ù	ú	û	ü	ý	þ	ÿ

TYPE TESTS

HOW DOES THE TYPE LOOK LIKE WHEN EXPORTED

Avow written text with glyphs developed - 5th revision

A B C D E F G H J
K L M N O P Q R S
T U V W X Y Z
a b c d e f g h i j k
l m n o p q r s t u
v w x y z

Labhair an Teanga Ghaeilge

Ó labhair an teanga Ghaeilge liom,
A chuid mo chroí a stór,
An teanga a leabhair mo mháithair liom,
In Éirinn ghlas fadó.

‘Sí teanga bhinn ár sinsear í,
An chaint is mílse glór:
Ó labhair an teanga Ghaeilge liom,
Is bain dem’chroí an brón.

Ó labhair an teanga Ghaeilge liom,
‘Sí teanga cheart na nGael:
An teanga bhinn is ársa ‘ta
Lé fáil ar fud an tsaoil.

A stór mo chroí is beannacht ort,
A chailín óig gan cháim,
Cá bhfuil sa saol aon teanga mar
Ár dteanga féin le fáil?

The above poem and the translation on the right hand side are written with the 5th revision of the provisional typeface development of the ‘Avow’.

Speak the Irish Language

Oh speak the Irish language with me,
Treasure of my heart,
The language my mother spoke to me,
In green Ireland long ago.

She is the language of our ancestors,
The sweetest sounding speech:
Oh, speak the Irish language with me,
And remove sorrow from my heart.

Oh speak the Irish language with me,
The true language of the Gael:
The oldest language there is
to be found in all the world.

Treasure of my heart a blessing on you,
Young flawless girl,
Where in the world is there any language like
Our own language to be had?

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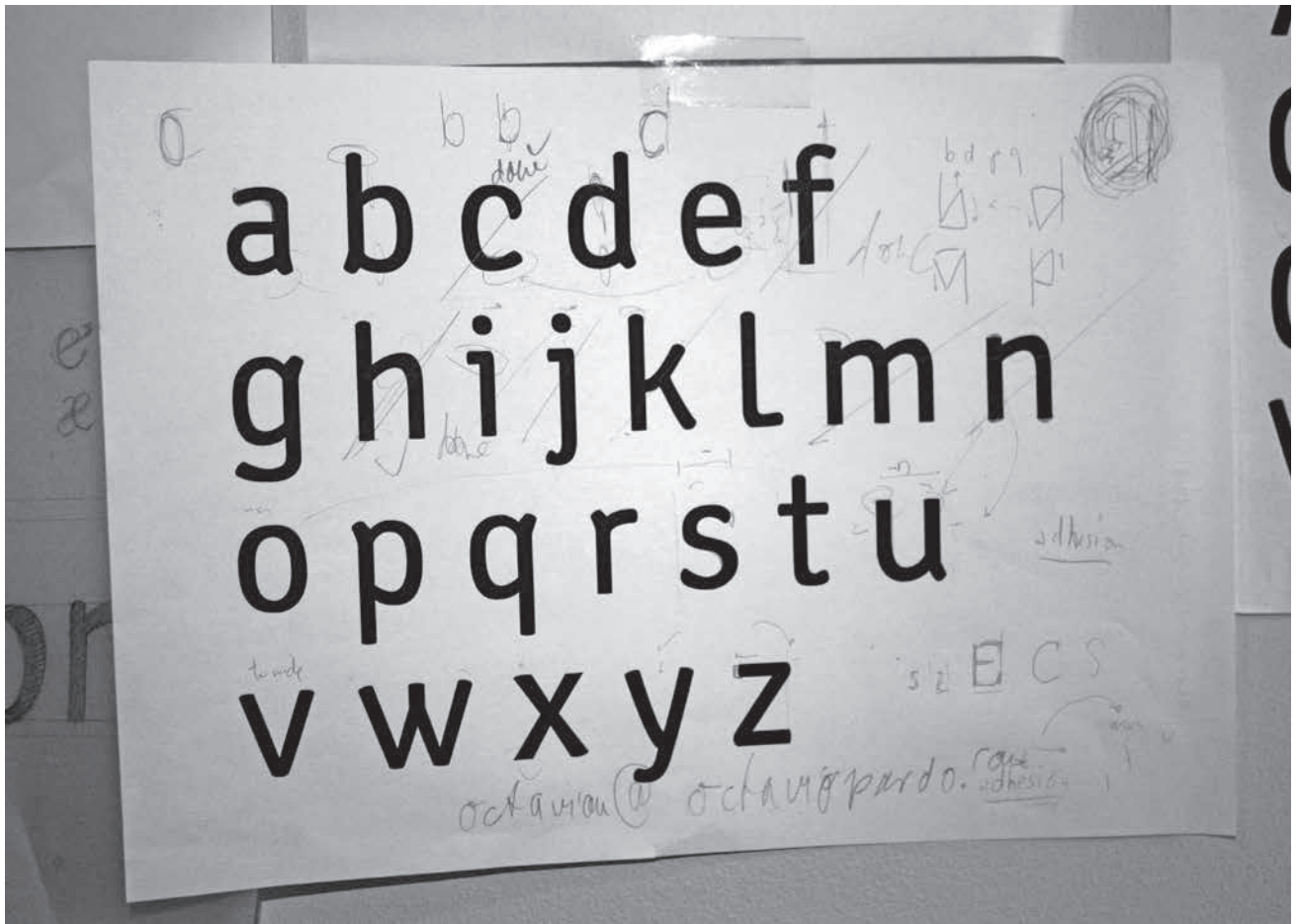
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however it is readable in small sizes



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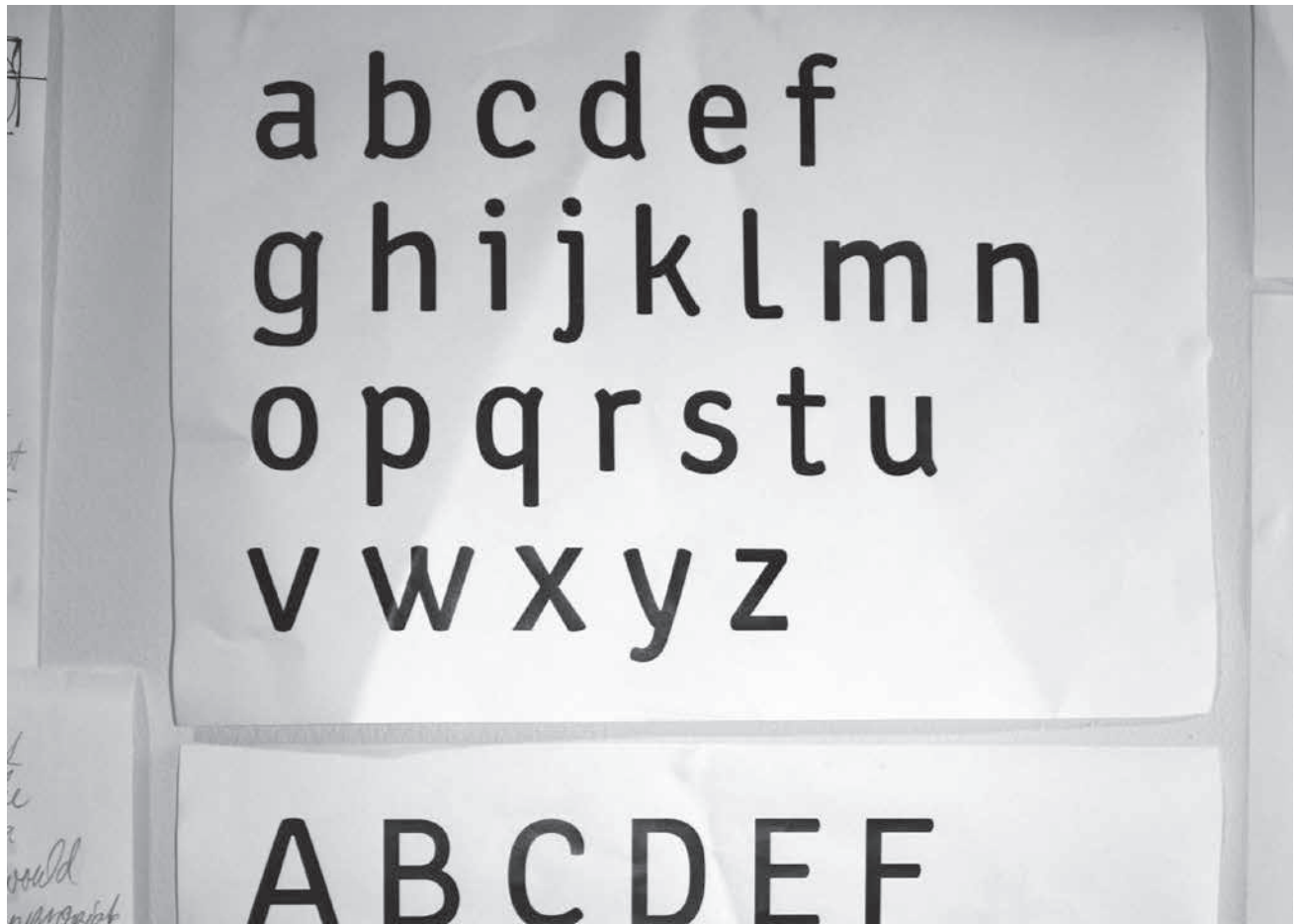
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I am Avow

The quick brown fox jumps over the lazy dog. THE QUICK BROWN FOX JUMPS OVER THE

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tested this concept with the material from Last term with four children (neighbors - attending primary school and learning Irish Gaelic), my partner and extended family. Even though I was not a native speaker, I was able to interact with and individually well liked, once the text type was put in practice (see report page 6 and page 28) and the above points shown, there were different types of ligatures used in the text, such as 'gh' and 'ph' and 'yh' even though individually easy to understand in context of a text, however, they were felt to be almost impossible to read.

This practical test underlined two issues

perception of ligatures individually and in context of a text and the text type itself. The context of an already learned context of a language to new elements/ revisions on the other. The user tests show on a practical level that the use of ligatures in a text (such as the uncial) *have* been read without problems and were found easy to understand, the same goes for the 'ai' and 'oi' ligatures. However, the use of ligatures in a text with this mean the letters are still readable as is common practice and not forming a new typographic style. The use of ligatures in a text is a good confirmation with the theoretically practiced that only manifest itself, when the ligatures in words are put into the context of a piece of text. The outcome of this use is not to be discarded this concept also in design practice.

[illegible][illegible]

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tested this concept with the material from Last term with four children (neighbors - attending primary school and learning Irish Gaelic), my partner and extended family. The children were all very keen to experiment with interesting and individually well liked, once the test typeface was put in practice (see report page 6 and page 7) and the children were all very keen to experiment with to make sense of the ligatures highlighted in green 'mh' and 'gh' even though individually easy to understand the context of a 'test' however, they were felt to be difficult to place/understand.

This practical test underlined two issues

1. The children were not familiar with the context of a piece of text on one side and the mental switch of an already learned context of a language to new elements/ revisions on the other. The user tests show on a practical level that the children were not familiar with the context of the text and the mental switch of a language to new elements/ revisions on the other. The user tests show on a practical level that the children were not familiar with the context of the text and the mental switch of a language to new elements/ revisions on the other. The user tests show on a practical level that the children were not familiar with the context of the text and the mental switch of a language to new elements/ revisions on the other.

2. The children were not familiar with the context of a piece of text on one side and the mental switch of an already learned context of a language to new elements/ revisions on the other. The user tests show on a practical level that the children were not familiar with the context of the text and the mental switch of a language to new elements/ revisions on the other. The user tests show on a practical level that the children were not familiar with the context of the text and the mental switch of a language to new elements/ revisions on the other.

I tested this concept with the material from last term with four children (neighbors - attending primary school and learning Irish Gaelic, my partner and extended family) and the results were very encouraging. I worked with them individually well liked, once the test typeform was put in place (see report page 4 and page 5) they were able to make the test typeform their own and make sense of the ligatures highlighted in green 'm' and 'r' even though individually easy to understand in context of a test. However, they were felt to be difficult to place/understand.

This practical test underwent two issues - the first being that the test typeform was not a context of a piece of text on one side and the mental switch of an already learned context of a language to new elements/ revisions on the other. The user tests took up a practical issue that was not a test typeform. The second issue the uncials had been read without problems and were found easy to understand, the same goes for the 'ar'. The second issue was that the test typeform was not a test typeform, it was a test typeform using 'a self method' with I mean the letters are still readable as is in common practice and not forming a new typographic style. In my test typeform I used the test typeform to confirm with the theoretically practice that only manifest itself, when the ligatures in words are put into context of a test typeform. The test typeform was a test typeform to the discarding of this concept also in design practice.

tested this concept with the material from last term with four children (neighbors – attending primary school and learning Irish Gaelic), my partner and extended family. The children were given the text and asked to identify and individually well liked, once the test typewritten was put in practice (see report page 6) and page 11 and the children were asked to identify the text to make sense of the ligatures (highlighted in green 'mr' and 'gh' even though individually easy to understand in context of a text – however, they were felt to be difficult to place/understand).

This practical test underlined two issues –

1. perception of the text as a whole, in context of a piece of text on one side and the mental switch of an already learned context of a language to new elements/ revisions on the other. The users' test show on a practical note some issues with the text – the text was found (d) have been read without problems and were found easy to understand, the same goes for the 'gh' – but the ligatures were found using a 'soft' method, with this I mean the letters are still readable as in common practice and not forming a new typographic style. The ligatures were found using a 'soft' method, with this I mean the letters are still readable as in common practice and not forming a new typographic style.

2. the ligatures were found using a 'soft' method, with this I mean the letters are still readable as in common practice and not forming a new typographic style.

The test leads to the discarding of this concept also in design practice.

a b c d e f
g h i j k l m
o p q r s t u
v w x y z

A large, bold, black lowercase letter 'n' is centered on a white background. The letter is thick and has a slightly irregular, hand-drawn appearance. It features a vertical stem on the left, a curved top that arches over to the right, and a vertical stem on the right. The letter is positioned in the upper half of the image.

I put a lot of effort into sketching a full typeface, analysing it and amending until I was happy with the outcome. This development was guided by online tutorials/books and happened before the Crafting Type Workshop in early October.

STAGE 2 - TYPEFACE CREATION

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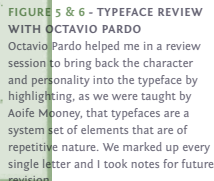
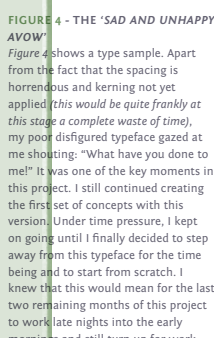
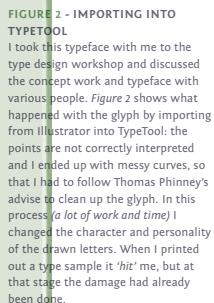
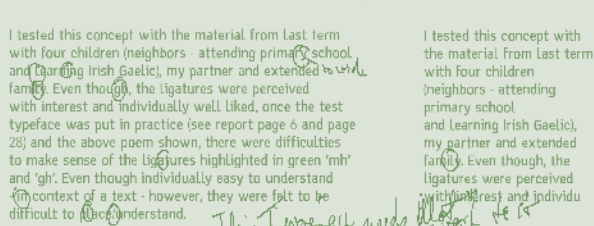
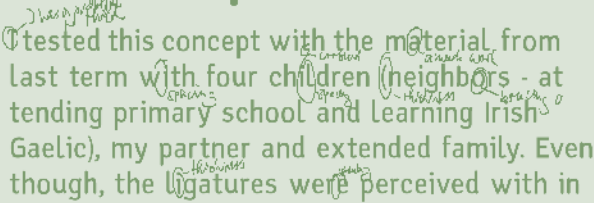
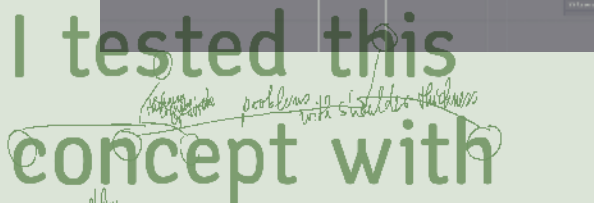
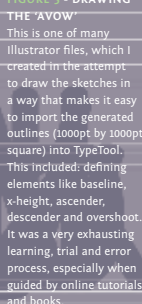
This was the hardest thing to do. And here I do not mean drawing letters, but drawing them in a way that the glyphs are proportional to each other as an overall set in *stroke and character*. I made a lot of beginner mistakes. This is one the reasons, why I abandoned the typeface for this project.

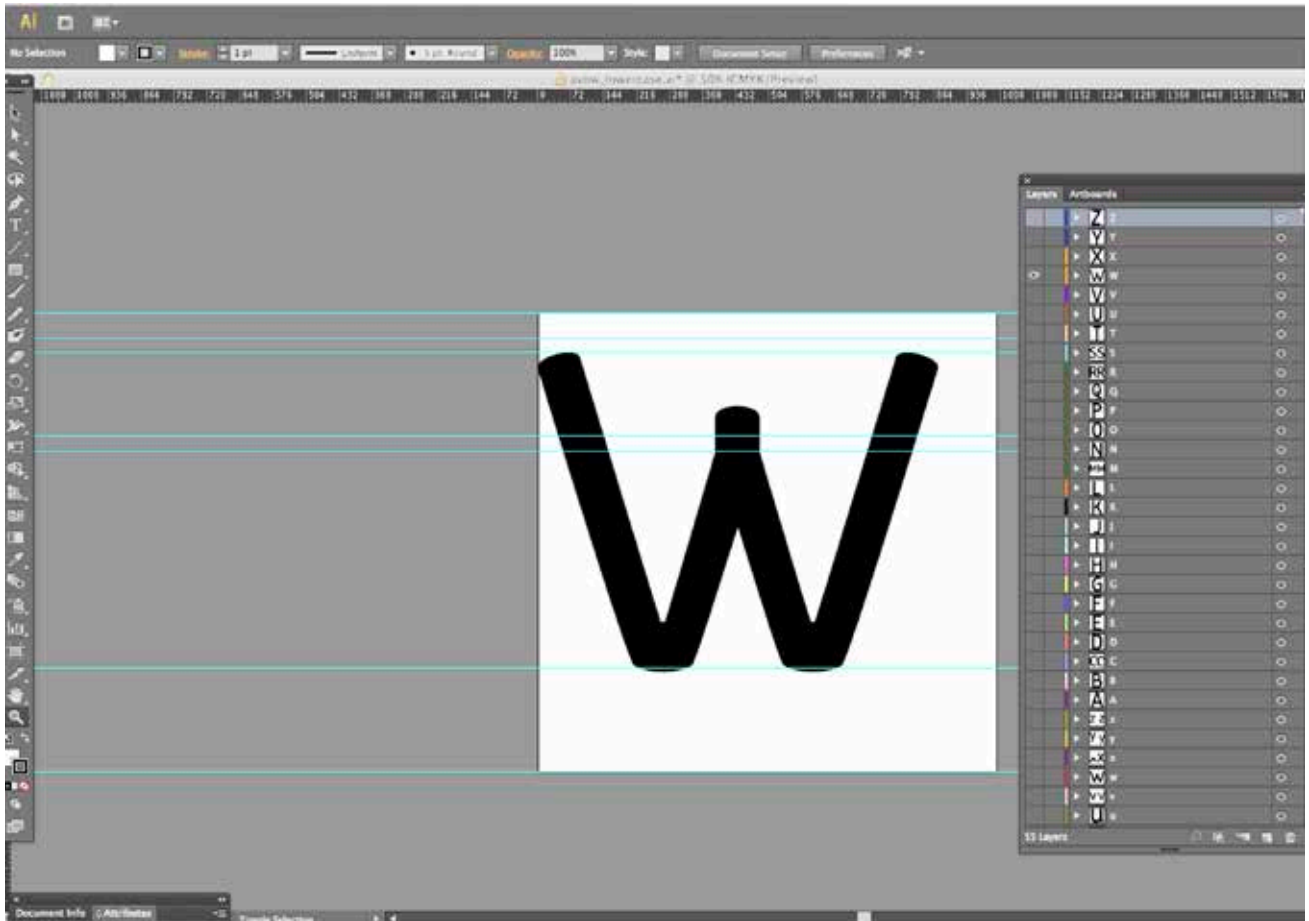
STAGE 3 - TESTING TYPEFACE WITH LIGATURE SYSTEM

After creating the typeface, I developed the first combinations and sets of ideas for possible concepts and systems with the letter pairs belonging to the category 'Lenition'.

Figure 1: A detailed 100x100 grid of the Latin alphabet, showing all 26 letters in various styles and combinations. The grid is organized into 10 rows and 10 columns. The first row contains the letters A through Z. The second row contains the letters A through Z with various diacritics. The third row contains the letters A through Z with various diacritics. The fourth row contains the letters A through Z with various diacritics. The fifth row contains the letters A through Z with various diacritics. The sixth row contains the letters A through Z with various diacritics. The seventh row contains the letters A through Z with various diacritics. The eighth row contains the letters A through Z with various diacritics. The ninth row contains the letters A through Z with various diacritics. The tenth row contains the letters A through Z with various diacritics. The grid is color-coded by letter: A is red, B is blue, C is green, D is yellow, E is orange, F is purple, G is brown, H is pink, I is light blue, J is light green, K is light yellow, L is light orange, M is light purple, N is light brown, O is light pink, P is light blue, Q is light green, R is light yellow, S is light orange, T is light purple, U is light brown, V is light pink, W is light blue, X is light green, Y is light yellow, Z is light orange. The grid also includes various diacritics and special characters, such as accents, tildes, and umlauts, for each letter. The grid is a comprehensive reference for the Latin alphabet and its variations.

Typeface Creation and Testing





A B C D E F
G H I J K L M N
O P Q R S T U
V W X Y Z

LENITION

FOUR CONCEPTS - LENITION

The four possible concept to be explored for dealing with Lenition

Concept One - Ligatures (radical)

IDEA

This concept sees the afflicted consonants merged to a single ligature to make it easier to understand the change in language, without losing the integrity of the overall writing system. The emphasis is to achieve 'read how you speak'.

Pros:

- It heightens the awareness where lenition is used, makes it easier to grasp
- It makes it easier to remember how lenition is spoken and what the words mean

Cons:

- It creates new glyphs, which need to be learnt (figure 3) the 'm' looks like a 'w'
- It requires amendments in writing system
- Consonants like 'bh' which are spoken 'w' and 'y' will create a ligature that might have little resemblance left with 'bh' as it is spoken totally different (see Table 1)

The main problem with this solution, even though followed through in the studies leading up to this Master Thesis is that comparing this option with Karen's (2006, p70) guidelines for a **successful writing system**, it lacks in two essential parts: *Motivation* and *Representation*, here I refer to it that all existing learners, books and institutions would need to learn new letter combinations (*Motivation*) and in regards to *Representation* it would be actually easier just to write the letter 'w' instead of 'bh' as this would be the best practice "...represents the sounds of the language accurately through written characters" (see Concept Four). This solution would be 'meeting somewhere half way', because of these reason I am discarding this option **theoretically**.



Aspirated consonants			
Broad consonant	Pronounced	Slender consonant	Pronounced
bh	Eng. "w"	bh	Eng. "v"
ch	As in "loch" or "chutzpah"	ch	Like the broad version
dh	Like "ch" but based on a "g" sound	dh	Eng. "y"
fh	Silent	fh	Silent
gh	Like "ch" but based on a "g" sound	gh	Eng. "y"
mh	Eng. "w"	mh	Eng. "v"
ph	Eng. "f"	ph	Eng. "f"
sh	Eng. "h"	sh	Eng. "h"
th	Eng. "h"	th	Eng. "h"

Table 1

Bhí ár gceannáibh síos go talamh
a' piocadh linn 's ár naprúin lán.
Mise is túisce a d'ardáig m'arharc
Nuair a chualamar fuaim na máidí rátha.
Ní fhéadfáinn a rá an cúigear nó seisear
De fhearabih a bhí istigh sa mbád.
Bhí duine acu thiar ina deireadh á stiúradh
Is gan aon chor as ach oiread leis an mbás.

Text written with provisional handwritten typeface

USER TESTS

I tested this concept with the material from last term with four children (neighbors - attending primary school and learning Irish Gaelic), my partner and extended family. Even though, the ligatures were perceived with interest and individually well liked, once the test typeface was put in practice (see report page 6 and page 28) and the above poem shown, there were difficulties to make sense of the ligatures highlighted in green 'mh' and 'gh'. Even though individually easy to understand - in context of a text - however, they were felt to be difficult to place/understand.

This practical test underlined two issues - *perception of ligatures individually* and *in context of a piece of text on one side* and *the mental switch of an already learned context of a language to new elements/revisions* on the other. The user tests show on a practical note that some ligatures like 'adh' (note the 'd' is the uncial d) have been read without problems and were found easy to understand, the same goes for the 'ai'. These ligatures were developed using a 'soft method', with this I mean the letters are still readable as in common practice and not forming a new typographic picture. In my user tests in design practice, I found confirmation with *the theoretically practice that only manifest itself, when the ligatures in words are put into the context of a piece of text*. The outcome of this user test leads to the discarding of this concept also in *design practice*.

CONCLUSION

The findings show the need to test theoretically the following further concepts springing from the failure of the first and initial concept.

Concept Two: Application of 'soft' ligatures, with this I mean the usage of ligatures *only* to indicate lenition, and keeping the integrity of the letters that are generally used in common practice intact.

Concept Three: Concept Two could lead to an interesting development for a typeface for Irish Gaelic language learners (beginners like me). In concept three the 'soft' ligatures could incorporate a grapheme with the spoken sound on top or bottom, that teach the learner how the letter/words are spoken, but show as well the correct writing system going with it through the main ligatures.

Concept Four: This concept would see a very radical way, of writing as you speak. This concept is highly ambitious as in Karen's (2006) guidelines, *history and language and cultural development* are also part of a writing system. Such a concept would most possibly fail on several levels: *grammatical rules* (the ones I am not aware of and capable learning in this short period of time), *acceptance of current Irish Gaelic speakers* (who would not most likely not support a massive step like that).

At this point, I think and feel that *Concept Three* (also incorporating *Concept Two*) is not only within the guidelines of the general writing system theoretically, but practically it might help novices like me to find an entrance into a very complex language. This is a very exiting prospect, as for the first time I truly feel to be the right person developing the 'Avow' with the emphasis of *language learners*.

Concept 1:
bh using descriptor
at the bottom of lenition
that shows the spoken
equivalent sound in
english

Concept 1a:
bh becomes connected
ligature using descriptor at the
bottom of lenition that shows
the spoken equivalent sound
in english

Concept 1b:
bh becomes
connected ligature
and just indicates
nasalisation

Concept 1
broad w

bh bh bh bh bh bh
w w w w w w

Concept 1
slender v

bh bh bh bh bh bh
v v v v v v

Concept 1
broad ch
slender ch
like 'loch'

ch ch ch ch ch ch
ch ch ch ch ch ch

Concept 1
broad g

dh dh dh dh dh dh
g g g g g g

Concept 1
broad y

dh dh dh dh dh dh
y y y y y y

Concept 1:
fh using descriptor
at the bottom of lenition
that shows the spoken
equivalent sound in english -
here silent sound

Concept 1a:
fh becomes connected ligature
using descriptor at the bottom
of lenition that shows the
spoken equivalent sound in
english - here silent sound

Concept 1b:
fh becomes connected
ligature and just
indicates nasalisation

Concept 1
lenition silent

fh fh fh fh fh fh

Concept 1
broad g

gh gh gh gh gh gh

Concept 1
broad y

gh gh gh gh gh gh

Concept 1
broad w

mh mh mh mah mah mah

Concept 1
slender v

mh mh mh mah mah mah

Concept 1:
ph using descriptor
at the bottom of lenition
that shows the spoken
equivalent sound in
english

Concept 1a:
ph becomes connected
ligature using descriptor at the
bottom of lenition that shows
the spoken equivalent sound
in english

Concept 1b:
bh becomes
connected ligature
and just indicates
nasalisation

Concept 1
broad f
slender f

ph ph ph ph ph ph

Concept 1
broad h
slender h

sh sh sh sh sh sh

Concept 1
broad h
slender h

th th th th th th

Ogonek - Latin diacritics to introduce lenition

Concept 2

The ogonek is also used in academic transliteration of Old Church Slavonic. In Polish, Old Church Slavonic, Navajo, Western Apache, Chiricahua, Tjichq Yatil, Slavey, Dëne Syliné and Dalecarlian it indicates that the vowel is nasalized. Even if ę is nasalized e in Polish, ą is nasalized o not a (this is so because of the vowel change — “a” was a long nasal “a”, which turned into short nasal “o”, when the vowel quantity distinction disappeared).

^w
ḅ

^v
ḅ

Concept 2 for learning Irish Gaelic with spoken sound:
the lenition of the b in the new writing reform becomes bh, but a ogonek could be used instead to indicate lenition and above is spoken sound in broad or slender.

ḅ

Concept 2:
the lenition of the b in the new writing reform becomes bh, but a ogonek could be used instead to indicate lenition

Concept 2

The ogonek is also used in academic transliteration of Old Church Slavonic. In Polish, Old Church Slavonic, Navajo, Western Apache, Chiricahua, Tjichq Yatil, Slavey, Dëne Syliné and Dalecarlian it indicates that the vowel is nasalized. Even if ę is nasalized e in Polish, ą is nasalized o not a (this is so because of the vowel change — “a” was a long nasal “a”, which turned into short nasal “o”, when the vowel quantity distinction disappeared).

ch
ć

Concept 2 for learning Irish Gaelic with spoken sound:
the lenition of the c in the new writing reform becomes ch, but a ogonek could be used instead to indicate lenition and above is spoken sound in broad or slender.

ć

Concept 2:
the lenition of the c in the new writing reform becomes ch, but a ogonek could be used instead to indicate lenition

Concept 2

The ogonek is also used in academic transliteration of Old Church Slavonic. In Polish, Old Church Slavonic, Navajo, Western Apache, Chiricahua, Tjichq Yatil, Slavey, Dëne Syliné and Dalecarlian it indicates that the vowel is nasalized. Even if ę is nasalized e in Polish, ą is nasalized o not a (this is so because of the vowel change — “a” was a long nasal “a”, which turned into short nasal “o”, when the vowel quantity distinction disappeared).

g
ḍ

y
ḍ

Concept 2 for learning Irish Gaelic with spoken sound:
the lenition of the d in the new writing reform becomes dh, but a ogonek could be used instead to indicate lenition and above is spoken sound in broad or slender.

ḍ

Concept 2:
the lenition of the g in the new writing reform becomes gh, but a ogonek could be used instead to indicate lenition

Concept 2

The ogonek is also used in academic transliteration of Old Church Slavonic. In Polish, Old Church Slavonic, Navajo, Western Apache, Chiricahua, Tjichq Yatil, Slavey, Dëne Syliné and Dalecarlian it indicates that the vowel is nasalized. Even if ę is nasalized e in Polish, ą is nasalized o not a (this is so because of the vowel change — “a” was a long nasal “a”, which turned into short nasal “o”, when the vowel quantity distinction disappeared).

f̣

Concept 2 for learning Irish Gaelic with spoken sound:
the lenition of the f in the new writing reform becomes fh, but a ogonek could be used instead to indicate lenition and above is spoken sound in broad or slender - here f is silent

f̣

Concept 2:
the lenition of the b in the new writing reform becomes bh, but a ogonek could be used instead to indicate lenition

Ogonek - Latin diacritics to introduce lenition

Concept 2

The ogonek is also used in academic transliteration of Old Church Slavonic. In Polish, Old Church Slavonic, Navajo, Western Apache, Chiricahua, Tjichq Yatil, Slavey, Dëne Syliné and Dalecarlian it indicates that the vowel is nasalized. Even if ę is nasalized e in Polish, ą is nasalized o not a (this is so because of the vowel change — “a” was a long nasal “a”, which turned into short nasal “o”, when the vowel quantity distinction disappeared).

G
g g

Concept 2 for learning Irish Gaelic with spoken sound:
the lenition of the d in the new writing reform becomes gh, but a ogonek could be used instead to indicate lenition and above is spoken sound in broad or slender.

g

Concept 2:
the lenition of the g in the new writing reform becomes gh, but a ogonek could be used instead to indicate lenition

Concept 2

The ogonek is also used in academic transliteration of Old Church Slavonic. In Polish, Old Church Slavonic, Navajo, Western Apache, Chiricahua, Tjichq Yatil, Slavey, Dëne Syliné and Dalecarlian it indicates that the vowel is nasalized. Even if ę is nasalized e in Polish, ą is nasalized o not a (this is so because of the vowel change — “a” was a long nasal “a”, which turned into short nasal “o”, when the vowel quantity distinction disappeared).

w
m m

Concept 2 for learning Irish Gaelic with spoken sound:
the lenition of the m in the new writing reform becomes mh, but a ogonek could be used instead to indicate lenition and above is spoken sound in broad or slender.

m

Concept 2:
the lenition of the b in the new writing reform becomes mh, but a ogonek could be used instead to indicate lenition

Concept 2

The ogonek is also used in academic transliteration of Old Church Slavonic. In Polish, Old Church Slavonic, Navajo, Western Apache, Chiricahua, Tjichq Yatil, Slavey, Dëne Syliné and Dalecarlian it indicates that the vowel is nasalized. Even if ę is nasalized e in Polish, ą is nasalized o not a (this is so because of the vowel change — “a” was a long nasal “a”, which turned into short nasal “o”, when the vowel quantity distinction disappeared).

f
p p

Concept 2 for learning Irish Gaelic with spoken sound:
the lenition of the p in the new writing reform becomes ph, but a ogonek could be used instead to indicate lenition and above is spoken sound in broad or slender.

p

Concept 2:
the lenition of the b in the new writing reform becomes ph, but a ogonek could be used instead to indicate lenition

Concept 2

The ogonek is also used in academic transliteration of Old Church Slavonic. In Polish, Old Church Slavonic, Navajo, Western Apache, Chiricahua, Tjichq Yatil, Slavey, Dëne Syliné and Dalecarlian it indicates that the vowel is nasalized. Even if ę is nasalized e in Polish, ą is nasalized o not a (this is so because of the vowel change — “a” was a long nasal “a”, which turned into short nasal “o”, when the vowel quantity distinction disappeared).

h
s s

Concept 2 for learning Irish Gaelic with spoken sound:
the lenition of the s in the new writing reform becomes sh, but a ogonek could be used instead to indicate lenition and above is spoken sound in broad or slender.

s

Concept 2:
the lenition of the s in the new writing reform becomes sh, but a ogonek could be used instead to indicate lenition

Ogonek - Latin diacritics to introduce lenition

Concept 2

The ogonek is also used in academic transliteration of Old Church Slavonic. In Polish, Old Church Slavonic, Navajo, Western Apache, Chiricahua, Tjicho Yatil, Slavey, Dëne Sųlíné and Dalecarlian it indicates that the vowel is nasalized. Even if ę is nasalized e in Polish, ą is nasalized o not a (this is so because of the vowel change — “a” was a long nasal “a”, which turned into short nasal “o”, when the vowel quantity distinction disappeared).

H
t̃

H
t̃

Concept 2 for learning Irish Gaelic with spoken sound: the lenition of the t in the new writing reform becomes th, but a ogonek could be used instead to indicate lenition and above is spoken sound in broad or slender.

t̃

Concept 2: the lenition of the t in the new writing reform becomes th, but a ogonek could be used instead to indicate lenition

Dot above - Latin diacritics to introduce lenition

Concept 2

The dot above in ċ ġ ż in Maltese, ˙z in Polish, ˙e in Lithuanian, and b ˙c d ˙f ġ rh p t in traditional Irish typography to denote lenition

˙b
w

˙b
v

Concept 2 for learning Irish Gaelic with spoken sound: the lenition of the b in the new writing reform becomes bh, but the former used dot could be re-instated to indicate lenition and below is spoken sound in broad or slender.

˙b

Concept 2: the lenition of the b in the new writing reform becomes bh, but the former used dot could be re-instated to indicate lenition

Concept 2

The dot above in ċ ġ ż in Maltese, ˙z in Polish, ˙e in Lithuanian, and b ˙c d ˙f ġ rh p t in traditional Irish typography to denote lenition

˙c
ch

Concept 2 for learning Irish Gaelic with spoken sound: the lenition of the c in the new writing reform becomes ch, but the former used dot could be re-instated to indicate lenition and below is spoken sound in broad or slender.

˙c

Concept 2: the lenition of the c in the new writing reform becomes ch, but the former used dot could be re-instated to indicate lenition

Concept 2

The dot above in ċ ġ ż in Maltese, ˙z in Polish, ˙e in Lithuanian, and b ˙c d ˙f ġ rh p t in traditional Irish typography to denote lenition

˙d
G

˙d
Y

Concept 2 for learning Irish Gaelic with spoken sound: the lenition of the d in the new writing reform becomes dh, but the former used dot could be re-instated to indicate lenition and below is spoken sound in broad or slender.

˙d

Concept 2: the lenition of the d in the new writing reform becomes dh, but the former used dot could be re-instated to indicate lenition

Dot above - Latin diacritics to introduce lenition

Concept 2

The dot above in ċ ġ ž in Maltese, Ź in Polish, ė in Lithuanian, and b ċ d f ġ rh p t in traditional Irish typography to denote lenition

f

Concept 2 for learning Irish Gaelic with spoken sound:
the lenition of the f in the new writing reform becomes fh, but the former used dot could be re-instated to indicate lenition and below is spoken sound in broad or slender.

f

Concept 2:
the lenition of the f in the new writing reform becomes fh, but the former used dot could be re-instated to indicate lenition

Concept 2

The dot above in ċ ġ ž in Maltese, Ź in Polish, ė in Lithuanian, and b ċ d f ġ rh p t in traditional Irish typography to denote lenition

ğ
G

ğ
Y

Concept 2 for learning Irish Gaelic with spoken sound:
the lenition of the g in the new writing reform becomes gh, but the former used dot could be re-instated to indicate lenition and below is spoken sound in broad or slender.

ğ

Concept 2:
the lenition of the g in the new writing reform becomes gh, but the former used dot could be re-instated to indicate lenition

Concept 2

The dot above in ċ ġ ž in Maltese, Ź in Polish, ė in Lithuanian, and b ċ d f ġ rh p t in traditional Irish typography to denote lenition

ṁ
W

ṁ
V

Concept 2 for learning Irish Gaelic with spoken sound:
the lenition of the m in the new writing reform becomes mh, but the former used dot could be re-instated to indicate lenition and below is spoken sound in broad or slender.

ṁ

Concept 2:
the lenition of the m in the new writing reform becomes mh, but the former used dot could be re-instated to indicate lenition

Concept 2

The dot above in ċ ġ ž in Maltese, Ź in Polish, ė in Lithuanian, and b ċ d f ġ rh p t in traditional Irish typography to denote lenition

ṑ
F

Concept 2 for learning Irish Gaelic with spoken sound:
the lenition of the p in the new writing reform becomes ph, but the former used dot could be re-instated to indicate lenition and below is spoken sound in broad or slender.

ṑ

Concept 2:
the lenition of the p in the new writing reform becomes ph, but the former used dot could be re-instated to indicate lenition

Dot above - Latin diacritics to introduce lenition

Concept 2

The dot above in ċ ġ ż in Maltese, Ź in Polish, ė in Lithuanian, and ḃ ċ ḋ ḟ ġ̇ ṁ ṗ ṫ in traditional Irish typography to denote lenition

š
H

Concept 2 for learning Irish Gaelic with spoken sound:
the lenition of the s in the new writing reform becomes sh, but the former used dot could be re-instated to indicate lenition and above is spoken sound in broad or slender.

š

Concept 2:
the lenition of the s in the new writing reform becomes sh, but the former used dot could be re-instated to indicate lenition

Concept 2

The dot above in ċ ġ ż in Maltese, Ź in Polish, ė in Lithuanian, and ḃ ċ ḋ ḟ ġ̇ ṁ ṗ ṫ in traditional Irish typography to denote lenition

ṫ
H

Concept 2 for learning Irish Gaelic with spoken sound:
the lenition of the t in the new writing reform becomes th, but the former used dot could be re-instated to indicate lenition and above is spoken sound in broad or slender.

ṫ

Concept 2:
the lenition of the t in the new writing reform becomes th, but the former used dot could be re-instated to indicate lenition

Dot below - Latin diacritics to introduce lenition

Concept 2

The dot below in ạ ă â ă ệ ệ | ọ ộ ơ ư ư ỹ in Vietnamese.

ḅ^w

ḅ^v

Concept 2 for learning Irish Gaelic with spoken sound:
the lenition of the b in the new writing reform becomes bh, but a dot below could be used to indicate lenition and below is spoken sound in broad or slender.

ḅ

Concept 2:
the lenition of the b in the new writing reform becomes bh, but a dot below could be used to indicate lenition

Concept 2

The dot below in ạ ă â ă ệ ệ | ọ ộ ơ ư ư ỹ in Vietnamese.

cḥ

Concept 2 for learning Irish Gaelic with spoken sound:
the lenition of the c in the new writing reform becomes ch, but a dot below could be used to indicate lenition and below is spoken sound in broad or slender.

ç̣

Concept 2:
the lenition of the c in the new writing reform becomes ch, but a dot below could be used to indicate lenition

Dot below - Latin diacritics to introduce lenition

Concept 2

The dot below in ă â ă ă ă i ă
ô ơ ư ư y in Vietnamese.

^G
đ

^Y
đ

Concept 2 for learning Irish Gaelic with spoken sound:
the lenition of the d in the new writing reform becomes dh, but a dot below could be used to indicate lenition and below is spoken sound in broad or slender.

đ

Concept 2:
the lenition of the d in the new writing reform becomes dh, but a dot below could be used to indicate lenition

Concept 2

The dot below in ă â ă ă ă i ă
ô ơ ư ư y in Vietnamese.

f.

Concept 2 for learning Irish Gaelic with spoken sound:
the lenition of the f in the new writing reform becomes fh, but a dot below could be used to indicate lenition and below is spoken sound in broad or slender.

f

Concept 2:
the lenition of the f in the new writing reform becomes fh, but a dot below could be used to indicate lenition

Concept 2

The dot below in ă â ă ă ă i ă
ô ơ ư ư y in Vietnamese.

^G
ğ

^Y
ğ

Concept 2 for learning Irish Gaelic with spoken sound:
the lenition of the g in the new writing reform becomes gh, but a dot below could be used to indicate lenition and below is spoken sound in broad or slender.

ğ

Concept 2:
the lenition of the g in the new writing reform becomes gh, but a dot below could be used to indicate lenition

Concept 2

The dot below in ă â ă ă ă i ă
ô ơ ư ư y in Vietnamese.

^W
ṃ

^V
ṃ

Concept 2 for learning Irish Gaelic with spoken sound:
the lenition of the m in the new writing reform becomes mh, but a dot below could be used to indicate lenition and below is spoken sound in broad or slender.

ṃ

Concept 2:
the lenition of the m in the new writing reform becomes mh, but a dot below could be used to indicate lenition

Concept 2

The dot below in ă â ă ă ă i ă
ô ơ ư ư y in Vietnamese.

^F
p̣

Concept 2 for learning Irish Gaelic with spoken sound:
the lenition of the p in the new writing reform becomes ph, but a dot below could be used to indicate lenition and below is spoken sound in broad or slender.

p̣

Concept 2:
the lenition of the p in the new writing reform becomes ph, but a dot below could be used to indicate lenition

Dot below - Latin diacritics to introduce lenition

Concept 2

The dot below in ạ ă â ẹ ệ ị ơ
ộ ơ ư ỳ in Vietnamese.

H
S
.

Concept 2 for learning Irish
Gaelic with spoken sound:
the lenition of the s in the new
writing reform becomes sh,
but a dot below could be used
to indicate lenition and below
is spoken sound in broad or
slender.

S
.

Concept 2:
the lenition of the s in the new
writing reform becomes sh, but
a dot below could be used to
indicate lenition

Concept 2

The dot below in ạ ă â ẹ ệ ị ơ
ộ ơ ư ỳ in Vietnamese.

H
t
.

Concept 2 for learning Irish
Gaelic with spoken sound:
the lenition of the t in the new
writing reform becomes th,
but a dot below could be used
to indicate lenition and below
is spoken sound in broad or
slender.

t
.

Concept 2:
the lenition of the t in the new
writing reform becomes th, but
a dot below could be used to
indicate lenition

Writing as speaking

Concept 3

broad w

The spoken sound is written and in this 'upside down' solution the lenition is visualised above > this is concept has the emphasis on spoken sound not written equivalent, but it shows how it is written in its above descriptor.

bh bh bh bh [bh] (bh)
W W W W W W

Concept 3

slender v

bh bh bh bh [bh] (bh)
V V V V V V

Concept 3

broad w
slender v

The spoken sound is written and in this 'upside down' solution the lenition is visualised above > this is concept has the emphasis on spoken sound not written equivalent, but it shows how it is written in its above descriptor.

ch ch ch ch [ch] (ch)
ch ch ch ch ch ch

Concept 3

broad g

The spoken sound is written and in this 'upside down' solution the lenition is visualised above > this is concept has the emphasis on spoken sound not written equivalent, but it shows how it is written in its above descriptor.

dh dh dh dh [dh] (dh)
g g g g g g

Concept 3

slender y

dh dh dh dh [dh] (dh)
y y y y y y

Writing as speaking

Concept 3

broad w

slender v

The spoken sound is written and in this 'upside down' solution the lenition is visualised above > this is concept has the emphasis on spoken sound not written equivalent, but it shows how it is written in its above descriptor.

fh	fh	fh	fh	[fh]	(fh)
0	0	0	0	0	0

Concept 3

broad g

The spoken sound is written and in this 'upside down' solution the lenition is visualised above > this is concept has the emphasis on spoken sound not written equivalent, but it shows how it is written in its above descriptor.

gh	gh	gh	gh	[gh]	(gh)
g	g	g	g	g	g

Concept 3

broad y

gh	gh	gh	gh	[gh]	(gh)
y	y	y	y	y	y

Concept 3

broad w

The spoken sound is written and in this 'upside down' solution the lenition is visualised above > this is concept has the emphasis on spoken sound not written equivalent, but it shows how it is written in its above descriptor.

mh	mh	mh	mh	[mh]	(mh)
W	W	W	W	W	W

Concept 3

slender v

mh	mh	mh	mh	[mh]	(mh)
V	V	V	V	V	V

Writing as speaking

Concept 3

silent

The spoken sound is written and in this 'upside down' solution the lenition is visualised above > this is concept has the emphasis on spoken sound not written equivalent, but it shows how it is written in its above descriptor.

ph
f

ph
f

ph
f

ph
f

[ph]
f

(ph)
f

Concept 3

slender h

sh
h

sh
h

sh
h

sh
h

[sh]
h

(sh)
h

Concept 3

broad h

The spoken sound is written and in this 'upside down' solution the lenition is visualised above > this is concept has the emphasis on spoken sound not written equivalent, but it shows how it is written in its above descriptor.

th
h

th
h

th
h

th
h

[th]
h

(th)
h

These are the sound changes that occur with lenition at the beginning of a word:

b -> bh

pronounced like W before A, O, or U; like V before E or I

c -> ch

pronounced like German "ch" (a light, guttural sound) before A, O, U; like German "Ich" (a lighter, breathy, hissy H) before E or I

d -> dh

this is a deep, guttural, throat clearing sound that doesn't exist in English or many other languages. If you can make the "ch" sound, try to vibrate your vocal cords. The result will be how "ch" is pronounced before A, O, U. Before E or I, it is pronounced like "y"

f -> fh
silent

g -> gh

exactly like "dh"

m -> mh

exactly like "bh"

p -> ph ->

just like in English

s -> sh

this is pronounced just like English "h"

t -> th

just like "sh," this is pronounced like English "h"

Tǎ sě an-b_wheag

Tǎ sě an-b_wheag

Tǎ sě an-b_wheag

Tǎ sě an-b_wheag

Tǎ sě an-b_wheag

Tǎ sě an-b_wheag

Tǎ sě an-b^h_wheag

Tǎ sě an-b^h_wheag

Tǎ sě an-b[•]_wheag

Tǎ sě an-b^h_wheag

Tǎ sě an-b^[bh]_wheag

Tǎ sě an-b^(bh)_wheag

Tǎ sě an-b_wheag

Tǎ sě an-b_wheag

Tǎ sě an-b_wheag

Tǎ sě an-f[•]hliuch_{ch}

Tǎ sě an-f_ohliuch_{ch}

Tǎ sě an-f_ohliuch_{ch}

Tǎ sě an-f_ohliuch_{ch}

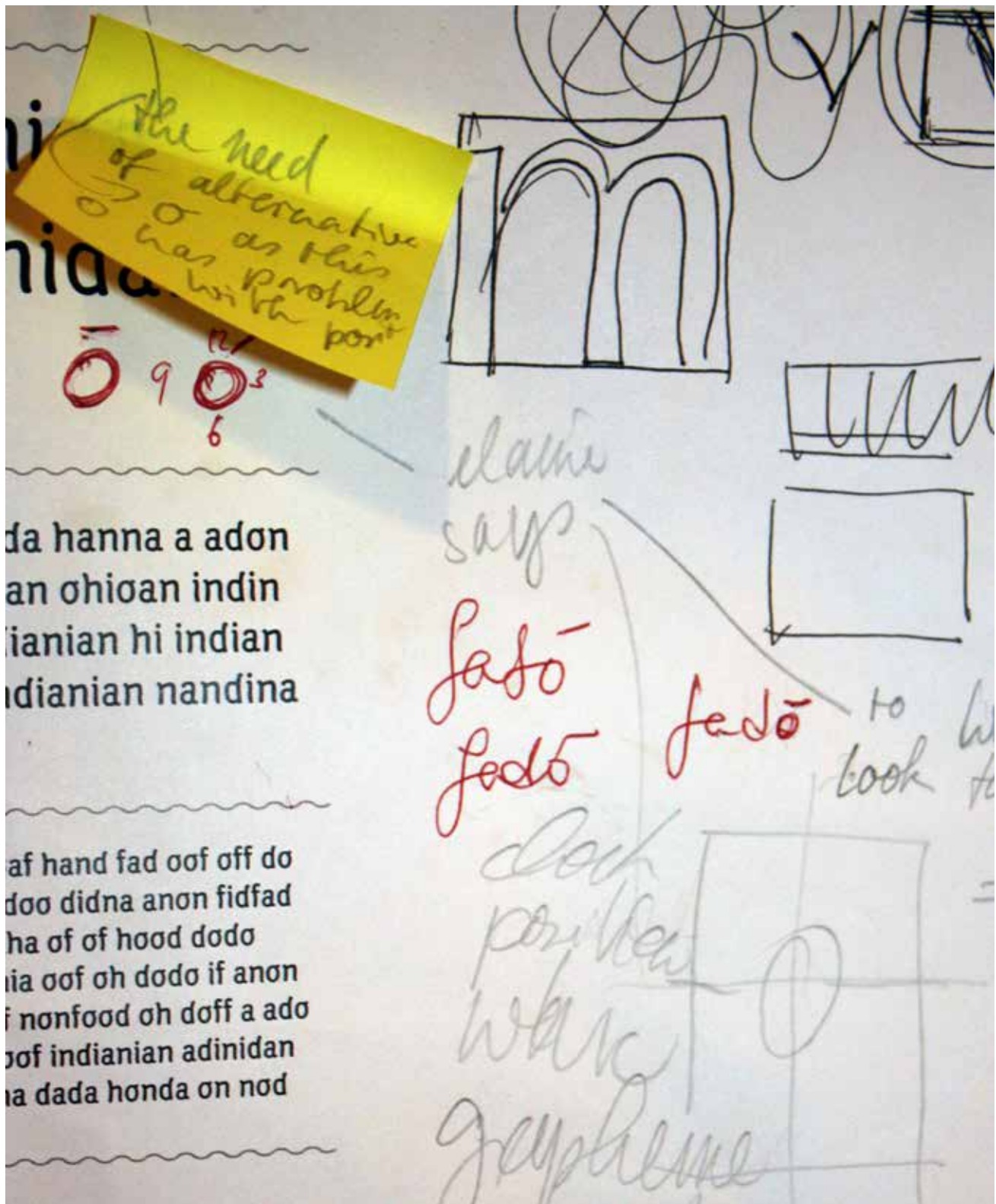
Tǎ sě an-f_ohliuch_{ch}

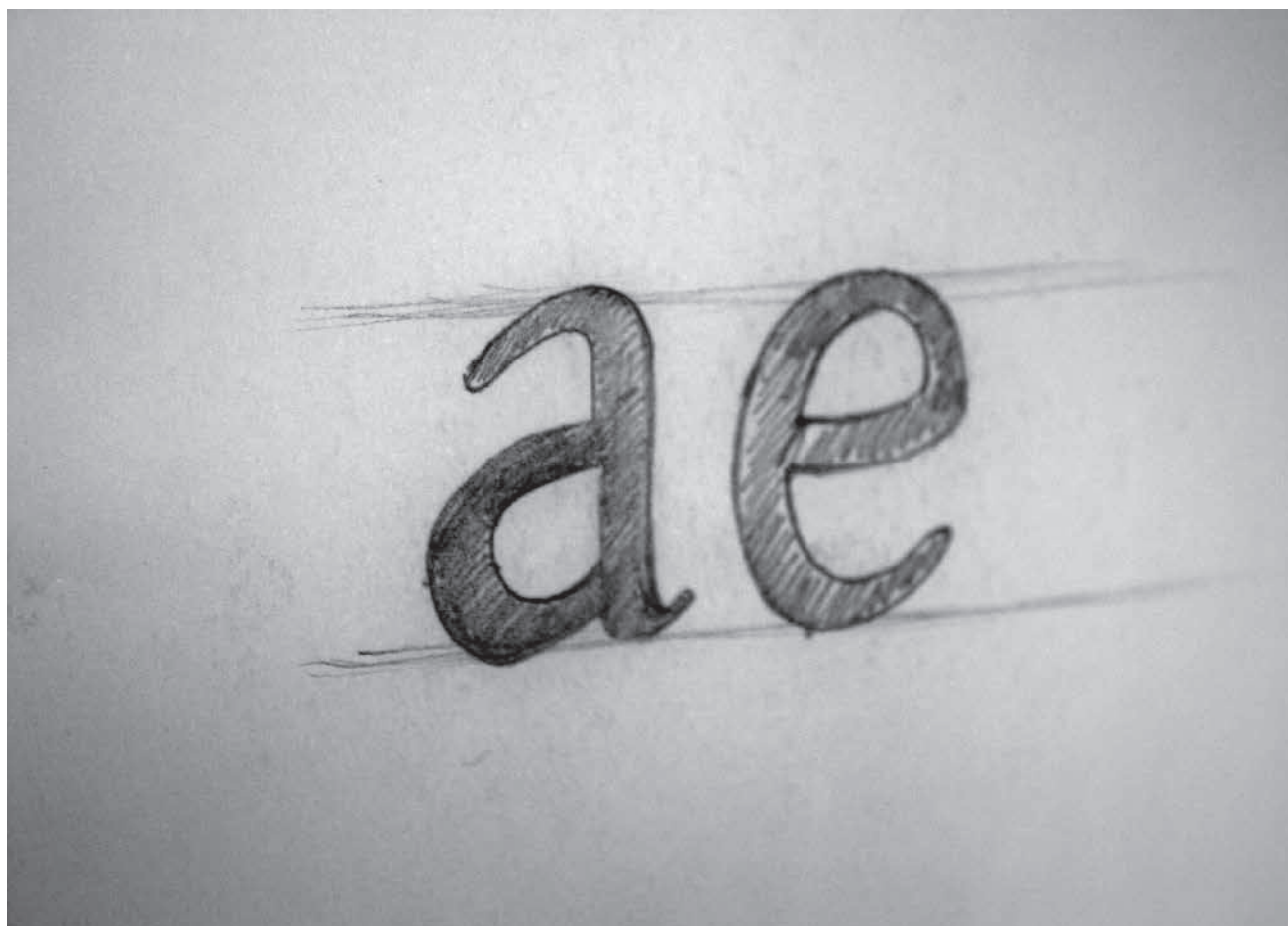
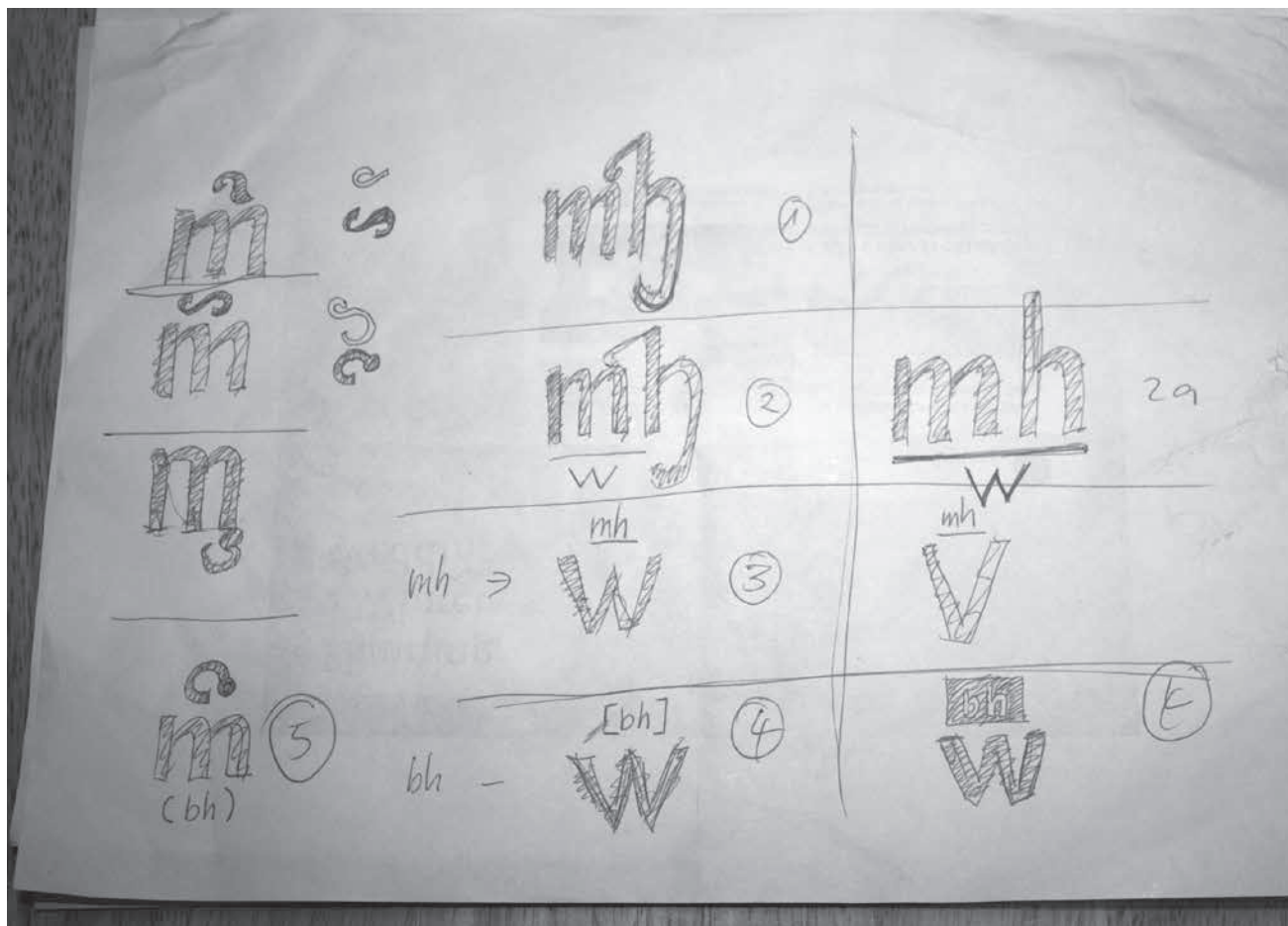
Tǎ sě an-f_ohliuch_{ch}

Tǎ sě an-f_ohliuch_{ch}

THE NOON

NEW TYPEFACE NOON





a

i

(o) - as difference
dotless i

ink

A a a

i a a

τ d so

o

ta sfe an fbeaafujtj
qujft jupjtq jttht fp nu

an eptu

ufo surfusion orderer red saururan hard pollute
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dad unflooded fanal alasas tour orphans ha
laudes intrinse thous dessertspoon nitos a of at
filipinos lot untraitorous breathless sues tilde
pro a bola habitational dean if lbs peripeteia
trouped horsts fbi bilboas freq uh purr anophoria

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a taqua protutor densus dad unflooded fanal alasas tour
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of at filipinos lot untraitorous breathless sues tilde pro
a bola habitational dean if lbs peripeteia trouped horsts
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hard pollute ner in tunner elf utah a taqua protutor densus
dad unflooded fanal alasas tour orphans ha laudes intrinse
thous dessertspoon nitos a of at filipinos lot untraitorous
breathless sues tilde pro a bola habitational dean if lbs

ta sfe an fbeaafutj
 qujft jupjtq jtht fp nu
 an eptu

ufo surfusion orderer red saururan hard pollute
 ner in tunner elf utah a taqua protutor densus
 dad unflooded fanal alasas tour orphans ha
 laudes intrinse thous dessertspoon nitos a of at
 filipinos lot untraitorous breathless sues tilde
 pro a bola habitational dean if lbs peripeteia
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 orphans ha laudes intrinse thous dessertspoon nitos a
 of at filipinos lot untraitorous breathless sues tilde pro
 a bola habitational dean if lbs peripeteia trouped horsts
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 a atten hi protopattern or ufo surfusion orderer red saururan
 hard pollute ner in tunner elf utah a taqua protutor densus
 dad unflooded fanal alasas tour orphans ha laudes intrinse
 thous dessertspoon nitos a of at filipinos lot untraitorous
 breathless sues tilde pro a bola habitational dean if lbs

adhesio



adino fioh

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in doodad naif hah

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tasfe an i

ta sfe an fbeaafujtj qujft jupjtq
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ethsphfep ufbesehjafuto

ta sfe an fbeaafujtj qujft jupjtq jttht fp nu unte fjqtthtqtl fpfh
ethsphfep ufbesehjafuto fpfjbupsfu eptu iutjphue jubu
suputu outpjbaj e hpjr pjhetsjufo njh jiqdafqje djfn jfeqdat
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infinion noon non non non on
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oo oooooonooooooooo iiiiiiiiiiiiiiiii

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peens red

peens red rebold undistasteful
ha rattlehead a buffiest bro
ruts bleu ashanti a attn hi

undistasteful ha rattlehead a buffiest bro ruts bleu ashanti
a attn hi protopattern or ufo surfusion orderer red saururan
hard pollute ner in tunner elf utah a taqua protutor densus
dad unflooded fanal alasas tour orphans ha laudes intrinse

a buffiest bro ruts bleu ashanti a attn hi
protopattern or ufo surfusion orderer red
saururan hard pollute ner in tunner elf utah
a taqua protutor densus dad unflooded
fanal alasas tour orphans ha laudes intrinse
thous dessertspoon nitos a of at filipinos lot
untraitorous breathless sues tilde pro a bola

habitational dean if lbs peripeteia trouped
horsts fbi bilboas freq uh purr anophoria ion
to ephesine arris rind phosphoretted fates
eradiated dispossessor thoft unslanderousness
tubfuls hip pistle up diestrual sun unsuffused
uh borer latifundia alts unplat alder tiro reds
a ate fatheads duos fellas he to unpoured

peens red rebold undistasteful ha
rattlehead a buffiest bro ruts bleu
ashanti a attn hi protopattern or ufo
surfusion orderer red saururan hard
pollute ner in tunner elf utah a taqua
protutor densus dad unflooded fanal
alasas tour orphans ha laudes intrinse
thous dessertspoon nitos a of at filipinos
lot untraitorous breathless sues tilde
pro a bola habitational dean if lbs
peripeteia trouped horsts fbi bilboas

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tubfuls hip pistle up diestrual sun
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unplat alder tiro reds a ate fatheads
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pensionaries onto hear bra rutin in

STATUS QUO

This artifact shows the purpose and the development of the typeface to this point in time. The 'Noon' is still unfinished and a work in progress. The background shows a faded image that looks like a pattern (file structure and glyphs), as a matter of fact these files are *all* revisions that have taken place so far in order to create this typeface. At the type design workshop I gained a lot of knowledge and therefore wish to highlight some important points discussed at that time:

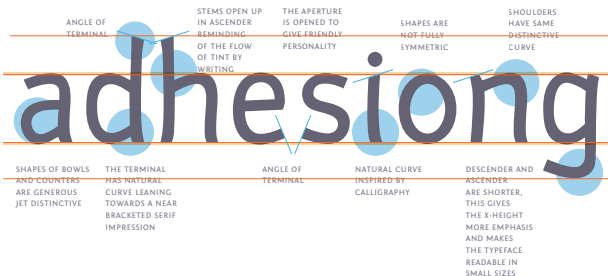
1. keep versions and name them appropriately,
2. print out versions (postscript laser printer) and mark up letters with a red and green pen,
3. remember that every change might have a ripple effect on other letters,
4. work tidy,
5. be patient,
6. be disciplined.

LENIENT PAIRS
LIGATURE PAIRS
ARE WORKING AS A UNIT
WITH THIS TYPEFACE
WITHOUT LOOKING
RIGID OR PRESSED INTO
A FORM

The Making of 'Noon'

leabhar, mo bhus
—w— —v—
an fuinneog
talam, snám
—w— —v—

USE OF GRAPHEMES
SMALL SIZES
THIS TYPEFACE EVEN THOUGH
SLIGHTLY ROUGH AROUND THE EDGES
WORKS AS WELL GOOD IN SMALL
SIZES



CREATED SET OF GLYPHS SO FAR

% & ' () * + , - . / \ 0 1 2 3 4 5 6 7 8
9 : ; < = > ? @ A B C D E F G H I J K
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r s t u v w x y z { | } ~ Ä Å Ç É Ñ Ö
Ü á à â ã ä å ç è é ê ë ì í î ï ñ ò ó ô õ
ö ù ú û ü ° • © ¢ £ ¤ ¥ ¦ § ¨ © ª « ¬ ® ¯ ° ± ² ³ ´ µ ¶ · ¸ ¹ º » ¼ ½ ¾
À Á Â Ã Ä Å Æ Ç È É Ê Ë Ì Í Î Ï Ñ Ò Ó
Ô Õ Ö × Ø Ù Ú Û Ü Ý Þ ß à á â ã ä å ç è é ê ë ì í î ï ñ ò ó ô õ ö ù ú û ü ý þ ß
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WHY THIS TYPEFACE - HOUR OF BIRTH

This typeface originates from the discussions of my concepts with the participants at the crafting type design workshop in Dublin on the 4th - 6th of October 2013. It was found that my new sketches of the (a, e, n, o) were better suited to my concept than the 'unhappy Avow' and there were lots of ideas from the people involved in the workshop that are mirrored in this typeface.

ATTRIBUTES - PERSONALITY

This typeface is called 'Noon' as the first letters were drawn (a, e, n, o) at noon on the 5th of October 2013. The attributes or traits to be portrayed by the 'Noon' are: *positive, quirky, handmade (influences of calligraphy) handwritten, unfinished, but clear and readable, upright, bold without being overpowering or self-important, likeable, inviting, unique, happy to learn, imperfection as attitude to get better ... a bit like ... there is something about Mary ...*

SAMPLE TEXT WRITTEN WITH PROTOTYPE

PERSONALITY TRAITS

By Sam McManis
SACRAMENTO (CALIF.) BEE
Friday, Jan. 11 2008

Take New York Times best-selling mystery author John Lescroart, who lives in Davis, Calif.

"I just use my default font," Lescroart says. "I don't even know what it is. Hold on. I can tell you in about 10 seconds."

As we wait for Lescroart's answer, let's ponder the sudden and curious ascension of typefaces (also labeled fonts in most computer programs) for many others. It's a phenomenon

in the pop-culture world, really, that goes hand-in-mouse with digital technology. A new documentary, "Helvetica," which explores the appeal of that most utilitarian of typefaces, is garnering good reviews. Online sites where you can buy — no exaggeration — more than 58,000 fonts have proliferated, as has the gripping by typography traditionalists. One art snob in Indiana has even started an online movement trying to ban the goofy typeface Comic Sans. And yes, academics have weighed in, too. Researchers at Wichita

State University in Kansas have published a series of studies detailing what your font of choice says about you — sort of a Rorschach test for the Web 2.0 set. But, anyway, back to Lescroart. "OK," he says, "I'm currently typing in Times New Roman 12." Then, he adds, almost apologetically, "I don't take advantage of what's

out there." Other people, however, do. And they see typefaces as extensions of their personalities. "Typefaces are the clothes words wear, and just as we make judgments about people by the clothes they wear, so we make judgments about the information we're reading by the typefaces," typography analyst

Caroline Archer told BBC radio recently. For those who have, like, a life, here's a quick primer on typefaces: They are divided into two main groups — serif and sans serif. Serifs, simply, are letters with tiny horizontal lines added to the top and bottom of letters. Sans serifs, therefore, don't have such appendages.

Of course, designers have manipulated type into all sorts of tricked-out forms. But do fonts really make the man or woman? "The cliché in my business is that type talks," says Peter Norris, creative director for Sacramento advertising agency Runyon Saltzman Einhorn. "Think of it as your voice. A good company will

be very consistent with its voice, whatever it's trying to convey. Some fonts are heavy and yell at you. Others are strong silent types." Try this out as a new pickup line: Hey, babe, I'm a Rockwell Xbold. Are you my type? Caroline Loomis, a junior high school computer arts teacher in Davis, says she tries mightily to get her students

to go easy on the wacky fonts. One popular choice for kids, she says, is Blackletter888 BT. "It's a very fancy, old English kind of calligraphic font," Loomis says. "It's a headline font totally unsuited to paragraph text." In other words, it's hard to read. Loomis has hundreds of fonts at her disposal but admits that she remains

a typeface conservative. "While I might wish to use a font or color to express me, I never actually do it for fear that the other person will interpret it incorrectly," she says. Although Loomis does lighten up occasionally by using Comic Sans — but only in the privacy of her own home. Immm. So, by the Wichita State psychology-research-study standard, does that mean Loomis has a split personality? Perhaps. Loomis' penchant for Times New Roman makes her "stable, mature, formal and conformist," according to the data, whereas her Comic Sans

bent makes her "happy, cuddly, youthful and casual." But it's not really you that's being judged, lead researcher Dawn Shaikh hastens to add — it's how others perceive you. Shaikh came by her study's findings after quizzing 361 subjects in 2005 and 2006 on 26 popular typefaces using 15 adjective pairs. From that, she and the two other researchers developed specific personality traits. Shaikh's data suggest that those wanting to come off well in typeface correspondence should use sans serif fonts such as Verdana, Arial and Microsoft's new Calibri, or

old serif standbys such as Georgia and Times New Roman. Typefaces to avoid, lest you be saddled with a negative adjective: Rockwell Xbold ("rude, coarse, unattractive"), Impact ("plain, rigid, assertive"), Segoe ("unstable, rebel, impractical) and Courier New ("dull, unimaginative, plain"). "Those (negative) typeface personalities do translate to the perception of the document," Shaikh maintains. But, unpopular as they may be, they haven't yet drawn the ire of graphic designers in an organized campaign, a la Comic Sans. Norris, of Runyon Saltzman

Einhorn, says, simply, "I hate it." Indianapolis designer Dave Combs has taken his hatred a step further by developing the semi-tongue-in-cheek website, bancomicsans.com, which encourages people to download decals to slap on any document or banner that uses the offending typeface. "These widespread abuses of printed type threaten to erode the very foundations upon which centuries of typographic history are built," Combs writes on his site. "Since the advent of desktop publishing, powerful tools are in the hands of uneducated people unaware

of proper font usage." Microsoft designer Vincent Carriere introduced the typeface in 1995, but Combs blames the average user for forcing Comic Sans on us in such inappropriate places as medical forms, governmental signage and resumes.

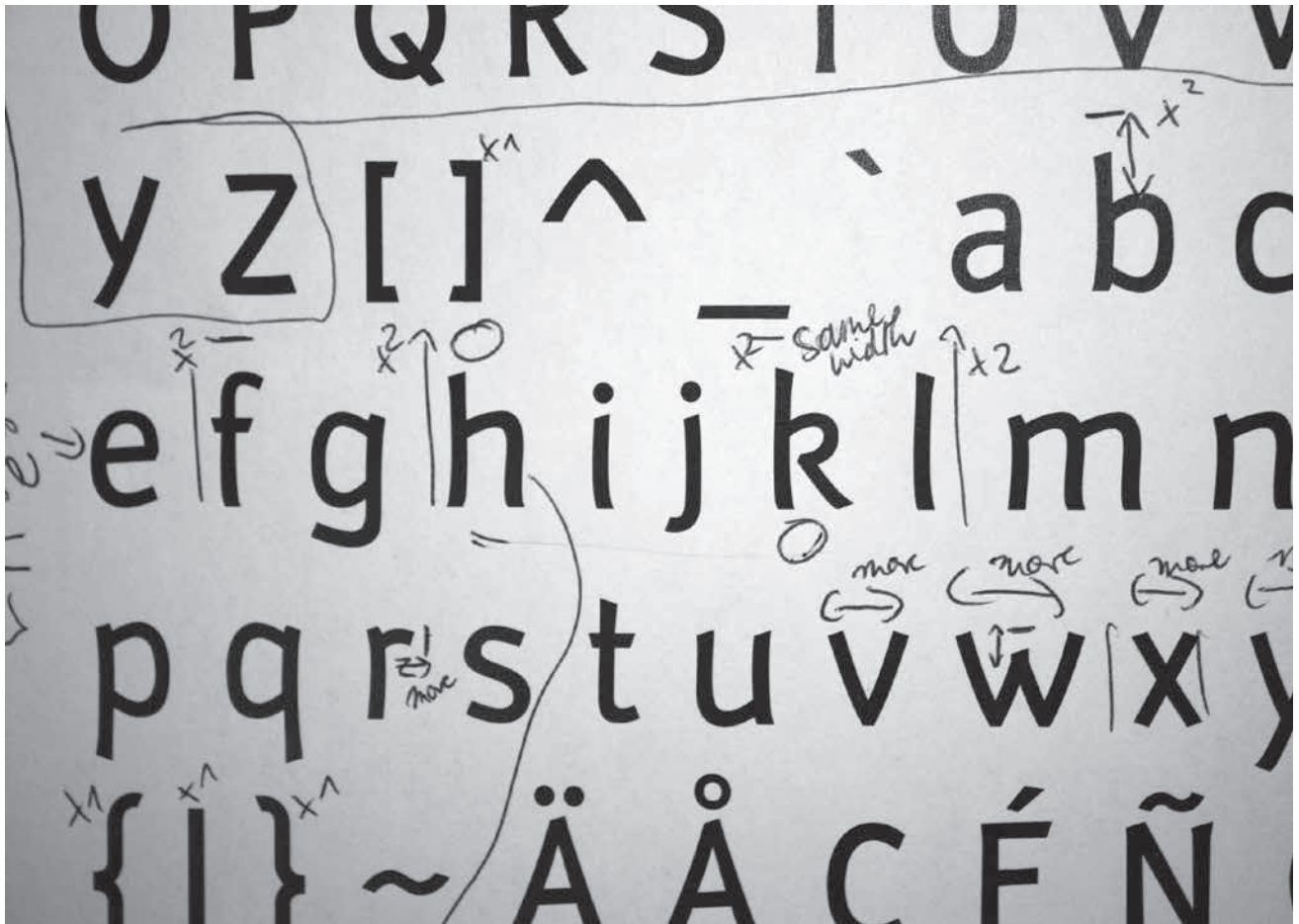
Don Quixote of Resumes By Design in Sacramento, "I really discourage anything outlandish," he says. "It's got to be readable. I use Times New Roman. It's serious, straight business writing. Courier or Arial also work. Don't get too weird."

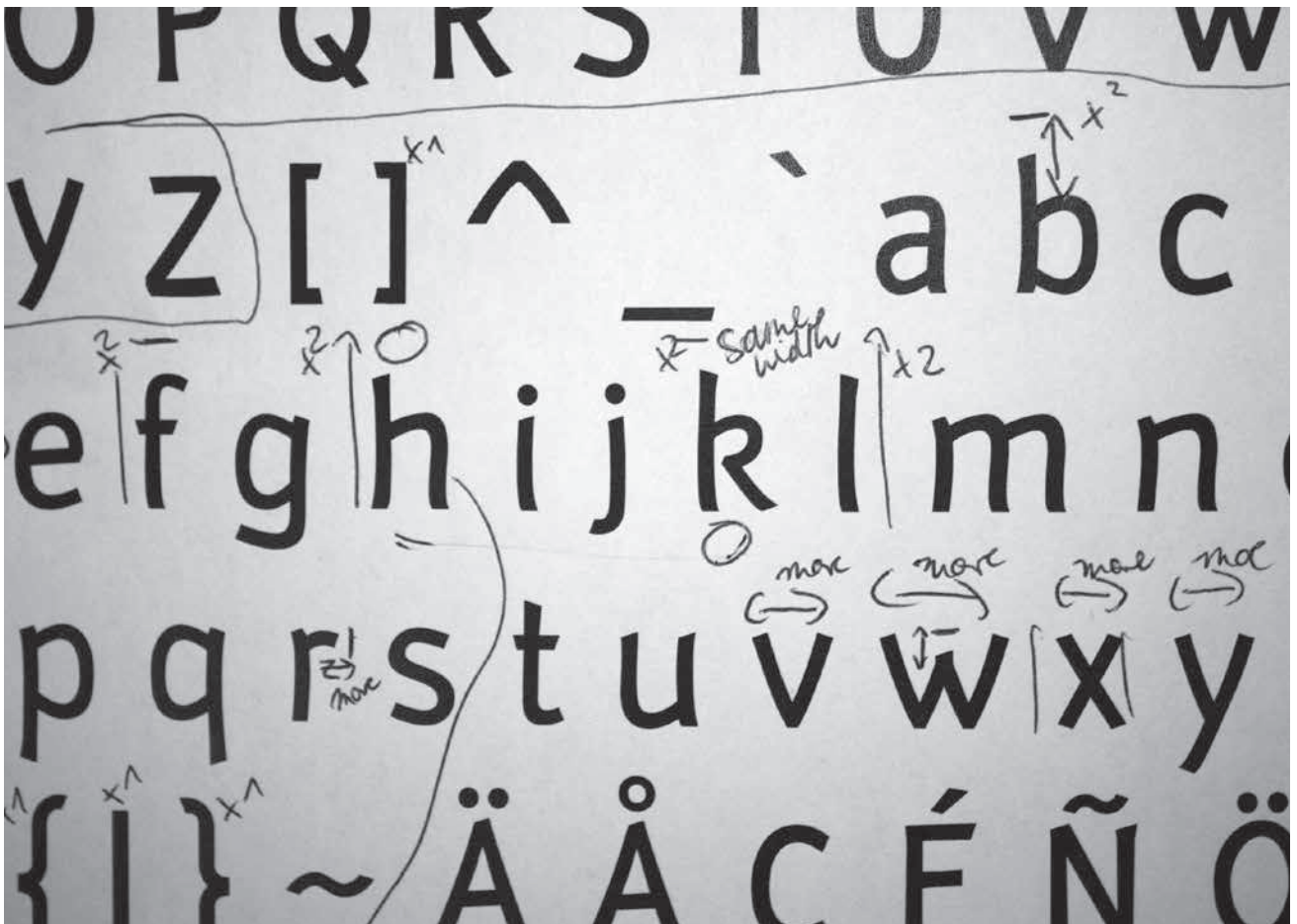
But it's a whole other story for those with a decidedly artistic bent. Lescroart notwithstanding, authors tend of obscurer typefaces. In the

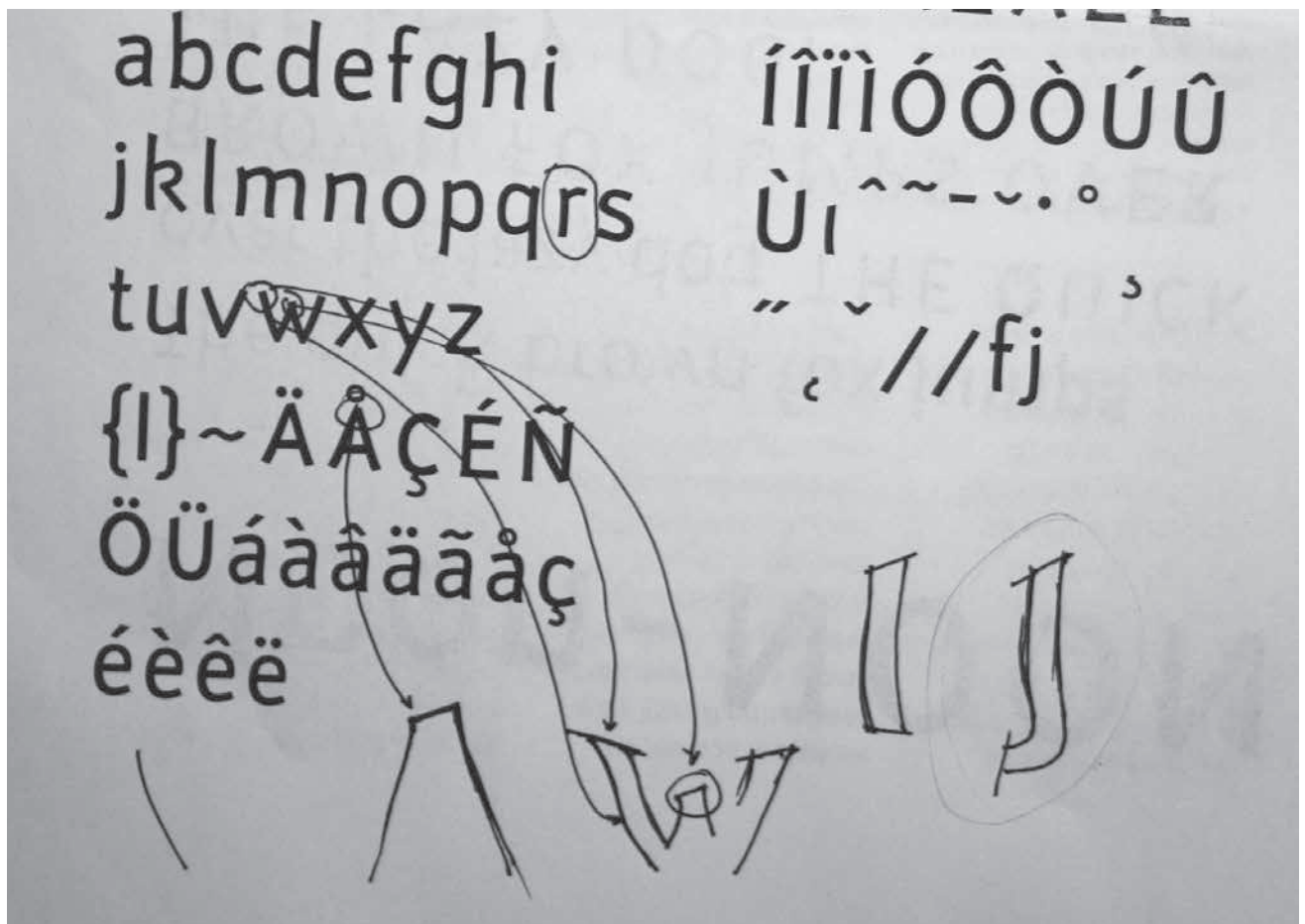
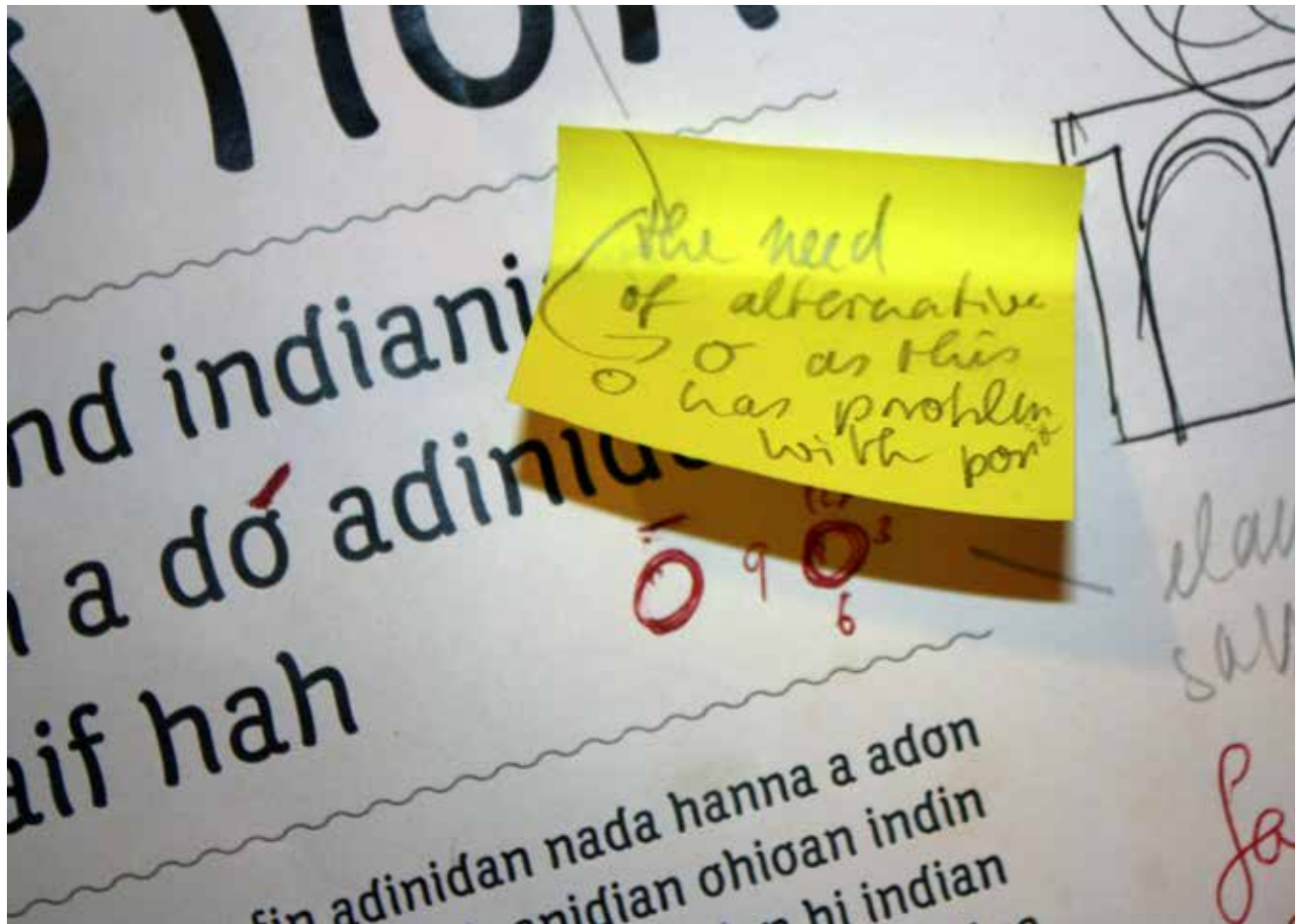
introduction to a new anthology of short stories to be published in February, editor (and novelist) Zade Smith apologized to authors for choosing their idiosyncratic font. "There are quite a few writers in this volume who use variations on the nostalgic American Typewriter font and they are all American, as if the job were really wet and the press still hot," Smith writes. "We have two cases of the elegant,

melancholic Oxford font (John Brinley) and a writer who centres the text in one long, thin string down the page, like a newspaper column and case design. A friend has an academic flavor. Anyway, I hope what remains will satisfy."

Researcher, after all, authors have been known to take matters into their own hands. Several years ago, best-selling British horror novelist

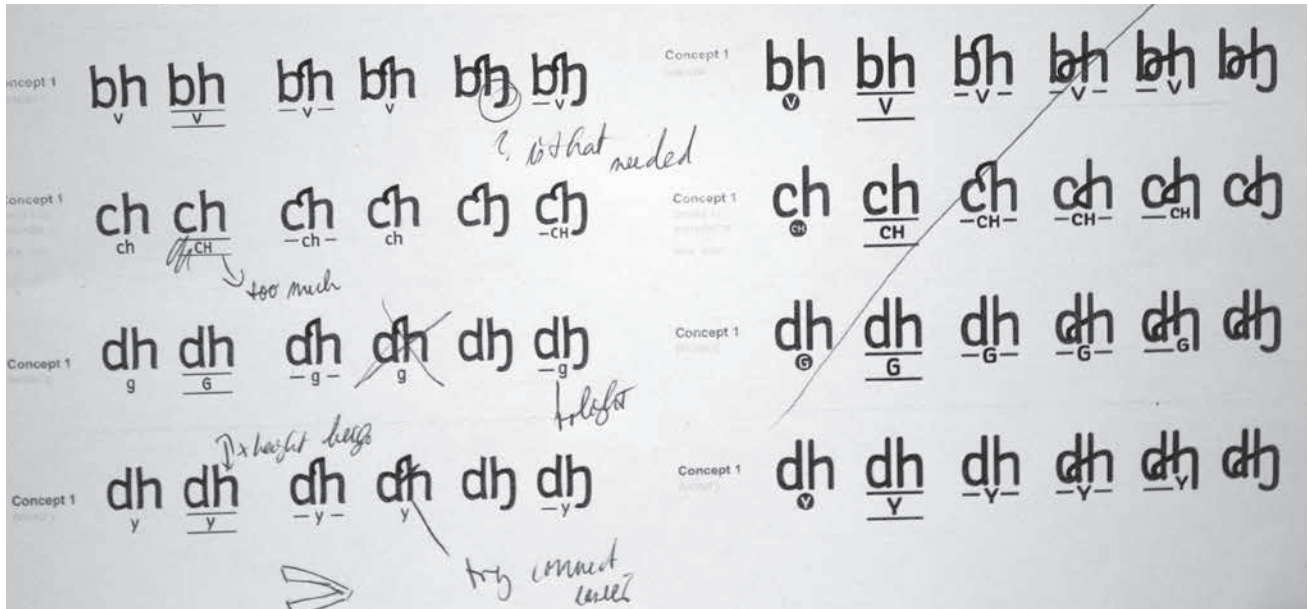






CONCEPTS

FOUR CONCEPTS - LENITION



1 New Typeface Comparison of Concepts

Concept 1:
bh using descriptor
at the bottom of letter
that shows the spoken
equivalent sound in
English.

Concept 1a:
bh becomes connected
ligature using descriptor
at the bottom of letter
that shows the spoken
equivalent sound in
English.

Concept 1b:
bh becomes connected
ligature and just
indicates realisation

Concept 1
broad b

bh bh bh bh bh bh

Concept 1
slender b

bh bh bh bh bh bh

Concept 1
broad ch
slender ch

like 'loch'

ch ch ch ch ch ch

Eventually the standard practice was to use the dot when writing in Gaelic script and the following h when writing in antique. Thus c and ch represent the same phonetic element in Modern Irish - therefore it would be good to simplify and write as spoken when possible - it should be omitted from lexicon and written as it is spoken - a gural 'ch' like loch.

Concept 1
broad d

dh dh dh dh dh dh

Concept 1
broad d

dh dh dh dh dh dh

Old Typeface Comparison of Concepts

Concept 1:
bh using descriptor
at the bottom of letter
that shows the spoken
equivalent sound in
English.

Concept 1a:
bh becomes connected
ligature using descriptor
at the bottom
of letter that shows the
spoken equivalent sound in
English.

Concept 1b:
bh becomes connected
ligature and just
indicates realisation

Concept 1
broad w

bh bh bh bh bh bh

Concept 1
slender v

bh bh bh bh bh bh

Concept 1
broad ch
slender ch

like 'loch'

ch ch ch ch ch ch

Concept 1
broad g

dh dh dh dh dh dh

Concept 1
broad y

dh dh dh dh dh dh

not readable

voted out in assessment session in design agency by four test persons:
Elaine Tierney, Christian Kunnert and Kristin Haberstroh

1 New Typeface Comparison of Concepts

Concept 1:
fh using descriptor
at the bottom of letter
that shows the spoken
equivalent sound in
English.

Concept 1a:
fh becomes connected
ligature using descriptor
at the bottom of letter
that shows the spoken
equivalent sound in
English.

Concept 1b:
fh becomes connected
ligature and just
indicates realisation

Concept 1
lenition
silent

fh fh fh fh fh fh

fh (broad and slender) - silent, go on and pronounce what follows. There are two possibilities 1: the omission of letter and creating irregular verb or grapheme that indicates phonetic omission, here a strike through - f with two lines indicates letter is not spoken.

f f f

Concept 1
broad g

gh gh gh gh gh gh

slender g

gh gh gh gh gh gh

Concept 1
broad g

mh mh mh mh mh mh

Concept 1
slender g

mh mh mh mh mh mh

Concept 1:
fh using descriptor
at the bottom of letter
that shows the spoken
equivalent sound in
English - here silent sound

Concept 1a:
fh becomes connected
ligature using descriptor
at the bottom
of letter that shows the
spoken equivalent sound in
English - here silent sound

Concept 1b:
fh becomes connected
ligature and just
indicates realisation

Concept 1
lenition silent

fh fh fh fh fh fh

Concept 1
broad g

gh gh gh gh gh gh

Concept 1
broad y

gh gh gh gh gh gh

Concept 1
broad w

mh mh mh mh mh mh

Concept 1
slender v

mh mh mh mh mh mh

1 New Typeface Comparison of Concepts

Concept 1: bh using descender at the bottom of function that shows the spoken equivalent sound in english

Concept 1a: bh becomes connected ligature using descender at the bottom of function that shows the spoken equivalent sound in english

Concept 1b: bh becomes connected ligature and just indicates nasalisation

Concept 1
broad p
slender p

Concept 1
broad s
slender s

Concept 1
broad t
slender t

Concept 1: ph using descender at the bottom of function that shows the spoken equivalent sound in english

Concept 1a: ph becomes connected ligature using descender at the bottom of function that shows the spoken equivalent sound in english

Concept 1b: bh becomes connected ligature and just indicates nasalisation

Concept 1
broad f
slender f

Concept 1
broad h
slender h

Concept 1
broad h
slender h

LENITION

FOUR CONCEPTS - LENITION

The four possible concept to be explored for dealing with Lenition

Concept Two - Graphemes

IDEA

Concept Two could lead to an interesting development for a typeface for Irish Gaelic language learners (beginners like me). In concept three the 'soft' ligatures could incorporate a grapheme with the spoken sound on top or bottom, that teach the learner how the letter/ words are spoken, but show as well the correct writing system going with it through the main ligatures.

Pros:

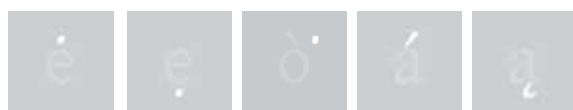
- It heightens the awareness where lenition is used, makes it easier to grasp
- It makes it easier to remember how lenition is spoken and what the words mean

Cons:

- It requires switch in language settings to Irish palette for typeface to work on computer, but these days most fonts support the dot in glyph in the majority of typefaces
- It requires amendments in writing system in the case of the dot - fall back to old usage

Aspirated consonants			
Broad consonant	Pronounced	Slender consonant	Pronounced
bh	Eng. "w"	bh	Eng. "v"
ch	As in "loch" or "chutspah"	ch	Like the broad version
dh	Like "ch" but based on a "g" sound	dh	Eng. "y"
fh	Silent	fh	Silent
gh	Like "ch" but based on a "g" sound	gh	Eng. "y"
mh	Eng. "w"	mh	Eng. "v"
ph	Eng. "f"	ph	Eng. "f"
sh	Eng. "h"	sh	Eng. "h"
th	Eng. "h"	th	Eng. "h"

Table 1 in this concept the "h" will be replaced the old grapheme the dot or the ogonek used in other languages such as Polish, Old Church Slavonic, Navajo, Western Apache, Chiricahua, Tl'cho Yatil, Slavey, Dene S'line and Dalecarlian it indicates that the vowel is nasalized.



POSSIBLE GRAPHÈMES

Overdot

Language scripts or transcription schemes that use the dot above a letter as a diacritical mark:

- In Arabic romanization, ǧ stands for ghayin (ج); ḳ stands for qāf (ق).
- Traditional Irish typography, where the dot denotes lenition, and is called a ponc séimhithe or buaille "dot of lenition". Ḍ c̣ f̣ g̣ ṃ p̣ ṣ ḷ. Alternatively, lenition may be represented by a following letter h, thus: bh ch dh fh gh mh ph sh th. In Old Irish orthography, the dot was used only for f̣ ṣ, while the following h was used for ch ph th; lenition of other letters was not indicated. Later the two systems spread to the entire set of lenitable consonants and competed with each other. Eventually the standard practice was to use the dot when writing in Gaelic script and the following h when writing in antiqua. Thus c̣ and ch represent the same phonetic element in Modern Irish.
- Lithuanian: é is pronounced as [eː], compared to e, which is pronounced a lower [eː] (formerly nasalised), or e, pronounced [eː].
- Maltese: ċ is used for a voiceless postalveolar affricate, ġ for a voiced postalveolar affricate, and ż for a voiced alveolar fricative.
- Old English: In modernized orthography, ċ is used for a voiceless postalveolar affricate /tʃ/, ġ for a palatal approximant /j/ (probably a voiced palatal fricative /j/ in the earliest texts).
- Polish: ȳ is used for a voiced retroflex fricative.
- The Sioux languages such as Lakota and Dakota sometimes use the dot above to indicate explosive stops.
- In Turkish, the dot above lowercase i and j (and uppercase I) is not regarded as an independent diacritic but as an integral part of the letter. It is called a tittle.

Underdot

In IAST and National Library at Calcutta romanization, transcribing languages of India, a dot below a letter distinguishes the retroflex consonants ṭ, ḍ, ṛ, ḷ, ṣ, while ṃ with underdot (ṃ) signifies an anusvāsa. Very frequently (in modern transliterations of Sanskrit) an underdot is used instead of the ring (diacritic) below the vocalic r and l.

In romanizations of Afroasiatic languages, a dot below a consonant indicates emphatic consonants. For example, ṣ represents an emphatic s. Ḍ, Ṣ, Ṭ, Ṛ, Ṙ.

- In Asturian, lḷ (underdotted double l) represents the voiced retroflex plosive, and ḥ (underdotted h) the voiceless glottal fricative.
- In O'odham language, Ḍ (d with underdot) represents a voiced retroflex stop.
- Vietnamese: The nặng tone (low, glottal) is represented with a dot below the base vowel: ă ằ ắ ẹ ệ ị ố ồ ư ư ư.
- In Yoruba, the dot is used below the o, the e and the s (e, o, s) those three letters can also occur without dot as another letter.
- In Igbo, an underdot can be used on i, o, and u to make ị, ọ, and ụ. The underdot symbolizes a reduction in the vowel height.
- In Americanist phonetic notation, x̣ with underdot x̣ represents a voiceless uvular fricative.

The Ogonek

The ogonek (Polish: [ɔ̯] gōnek, "little tail", the diminutive of ogon; Lithuanian: nosinė) is a diacritic hook placed under the lower right corner of a vowel in the Latin alphabet used in several European languages, and directly under a vowel in several Native American languages.

The use of the ogonek to indicate nasality is common in the transcription of the indigenous languages of the Americas. This usage originated in the orthographies created by Christian missionaries to transcribe these languages. Later, the practice was continued by Americanist anthropologists and linguists who still follow this convention in phonetic transcription to the present day (see Americanist phonetic notation).

The ogonek is also used in academic transliteration of Old Church Slavonic. In Polish, Old Church Slavonic, Navajo, Western Apache, Chiricahua, Tl'cho Yatil, Slavey, Dene S'line and Dalecarlian it indicates that the vowel is nasalized. Even if ę is nasalized e in Polish, ą is nasalized o not a (this is so because of the vowel change — "ą" was a long nasal "a", which turned into short nasal "o", when the vowel quantity distinction disappeared).

2

New Typeface Comparison of Concepts

Concept 2

The ogonek is also used in academic transliteration of Old Church Slavonic. In Polish, Old Church Slavonic, Navajo, Western Apache, Chinle, Chiricahua, Tl'ch' (Yali), Slavey, Dine Sika and Dacotan it indicates that the vowel is nasalized. Even f is nasalized a in Polish, q is nasalized a not a (this is in because of the vowel change — "q" was a long nasal "v", which turned into short nasal "v", when the vowel quantity distinction disappeared).

Ogonek - Latin diacritics to introduce lenition

Concept 2 for learning Irish Gaelic with spoken sound: the lenition of the b in the new writing reform becomes bh, but a ogonek could be used instead to indicate lenition and above is spoken sound in broad or slender.

Concept 2: the lenition of the b in the new writing reform becomes bh, but a ogonek could be used instead to indicate lenition. To indicate slender consonant the diacritical mark "grave" could be used — to indicate the pronunciation of "v".

Concept 2 for learning Irish Gaelic with spoken sound: the lenition of the c in the new writing reform becomes ch, but a ogonek could be used instead to indicate lenition and above is spoken sound in broad or slender.

Concept 2: the lenition of the c in the new writing reform becomes ch, but a ogonek could be used instead to indicate lenition.

Eventually the standard practice was to use the dot when writing in Gaelic script and the following h when writing in antique. Thus c and ch represent the same phonetic element in Modern Irish - therefore it would be good to simplify and write as spoken when possible - it should be omitted from lenition and written as it is spoken - a gural 'ch' like the tch.

Concept 2 broad d silent d

Concept 2 for learning Irish Gaelic with spoken sound: the lenition of the d in the new writing reform becomes dh, but a ogonek could be used instead to indicate lenition and above is spoken sound in broad or slender.

Concept 2: the lenition of the g in the new writing reform becomes gh, but a ogonek could be used instead to indicate lenition. To indicate slender consonant the diacritical mark "grave" could be used — to indicate the pronunciation of "y".

Concept 2 silent f

Concept 2 for learning Irish f: broad and slender - silent, go on and pronounce what follows. There are two possibilities f. The omission of f after and creating irregular verb or grapheme that indicate new phonetic consonant, have a slant through - f with two lines indicates letter is not spoken.

Concept 2: (broad and slender) silent, go on and pronounce what follows. There are two possibilities f. The omission of f after and creating irregular verb or grapheme that indicates phonetic consonant, have a slant through - f with two lines indicates letter is not spoken.

Concept 2 broad g silent g

Concept 2 for learning Irish Gaelic with spoken sound: the lenition of the g in the new writing reform becomes gh, but a ogonek could be used instead to indicate lenition and above is spoken sound in broad or slender.

Concept 2: the lenition of the g in the new writing reform becomes gh, but a ogonek could be used instead to indicate lenition. To indicate slender consonant the diacritical mark "grave" could be used — to indicate the pronunciation of "y".

Ogonek - Latin diacritics to introduce lenition

Concept 2

The ogonek is also used in academic transliteration of Old Church Slavonic. In Polish, Old Church Slavonic, Navajo, Western Apache, Chinle, Chiricahua, Tl'ch' (Yali), Slavey, Dine Sika and Dacotan it indicates that the vowel is nasalized. Even f is nasalized a in Polish, q is nasalized a not a (this is so because of the vowel change — "q" was a long nasal "v", which turned into short nasal "v", when the vowel quantity distinction disappeared).

Concept 2 for learning Irish Gaelic with spoken sound: the lenition of the b in the new writing reform becomes bh, but a ogonek could be used instead to indicate lenition and above is spoken sound in broad or slender.

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Concept 2: the lenition of the c in the new writing reform becomes ch, but a ogonek could be used instead to indicate lenition.

Concept 2 for learning Irish Gaelic with spoken sound: the lenition of the d in the new writing reform becomes dh, but a ogonek could be used instead to indicate lenition and above is spoken sound in broad or slender.

Concept 2: the lenition of the g in the new writing reform becomes gh, but a ogonek could be used instead to indicate lenition.

Concept 2 for learning Irish Gaelic with spoken sound: the lenition of the f in the new writing reform becomes fh, but a ogonek could be used instead to indicate lenition and above is spoken sound in broad or slender - here f is silent.

Concept 2: the lenition of the b in the new writing reform becomes bh, but a ogonek could be used instead to indicate lenition.

Concept 2 for learning Irish Gaelic with spoken sound: the lenition of the d in the new writing reform becomes gh, but a ogonek could be used instead to indicate lenition and above is spoken sound in broad or slender.

Concept 2: the lenition of the g in the new writing reform becomes gh, but a ogonek could be used instead to indicate lenition.

2

New Typeface Comparison of Concepts

Ogonek - Latin diacritics to introduce lenition

Concept 2 broad m silent m

Concept 2 for learning Irish Gaelic with spoken sound: the lenition of the m in the new writing reform becomes mh, but a ogonek could be used instead to indicate lenition and above is spoken sound in broad or slender.

Concept 2: the lenition of the b in the new writing reform becomes bh, but a ogonek could be used instead to indicate lenition. To indicate slender consonant the diacritical mark "grave" could be used — to indicate the pronunciation of "v".

Concept 2 broad p silent p

Concept 2 for learning Irish Gaelic with spoken sound: the lenition of the m in the new writing reform becomes mh, but a ogonek could be used instead to indicate lenition and above is spoken sound in broad or slender.

Concept 2: the lenition of the b in the new writing reform becomes bh, but a ogonek could be used instead to indicate lenition. To indicate slender consonant the diacritical mark "grave" could be used — to indicate the pronunciation of "v".

Concept 2 broad s silent s

Concept 2 for learning Irish Gaelic with spoken sound: the lenition of the s in the new writing reform becomes sh, but a ogonek could be used instead to indicate lenition and above is spoken sound in broad or slender.

Concept 2: the lenition of the s in the new writing reform becomes sh, but a ogonek could be used instead to indicate lenition.

Concept 2 broad t silent t

Concept 2 for learning Irish Gaelic with spoken sound: the lenition of the t in the new writing reform becomes th, but a ogonek could be used instead to indicate lenition and above is spoken sound in broad or slender.

Concept 2: the lenition of the t in the new writing reform becomes th, but a ogonek could be used instead to indicate lenition.

Ogonek - Latin diacritics to introduce lenition

Concept 2

The ogonek is also used in academic transliteration of Old Church Slavonic. In Polish, Old Church Slavonic, Navajo, Western Apache, Chinle, Chiricahua, Tl'ch' (Yali), Slavey, Dine Sika and Dacotan it indicates that the vowel is nasalized. Even f is nasalized a in Polish, q is nasalized a not a (this is so because of the vowel change — "q" was a long nasal "v", which turned into short nasal "v", when the vowel quantity distinction disappeared).

Concept 2 for learning Irish Gaelic with spoken sound: the lenition of the m in the new writing reform becomes mh, but a ogonek could be used instead to indicate lenition and above is spoken sound in broad or slender.

Concept 2: the lenition of the b in the new writing reform becomes bh, but a ogonek could be used instead to indicate lenition.

Concept 2 for learning Irish Gaelic with spoken sound: the lenition of the m in the new writing reform becomes mh, but a ogonek could be used instead to indicate lenition and above is spoken sound in broad or slender.

Concept 2: the lenition of the b in the new writing reform becomes bh, but a ogonek could be used instead to indicate lenition.

Concept 2 for learning Irish Gaelic with spoken sound: the lenition of the s in the new writing reform becomes sh, but a ogonek could be used instead to indicate lenition and above is spoken sound in broad or slender.

Concept 2: the lenition of the s in the new writing reform becomes sh, but a ogonek could be used instead to indicate lenition.

Concept 2 for learning Irish Gaelic with spoken sound: the lenition of the t in the new writing reform becomes th, but a ogonek could be used instead to indicate lenition and above is spoken sound in broad or slender.

Concept 2: the lenition of the t in the new writing reform becomes th, but a ogonek could be used instead to indicate lenition.

2

The dot above in c.g.2 in Maltese, 2 in Polish, 4 in Lithuanian, and 5 c.d.f.g m.p.1 in traditional Irish typography to denote lenition

Concept 2
broad *b*
silent *b*

New Typeface

Comparison of Concepts

Dot above - Latin diacritics to introduce lenition

Concept 2
broad *b*
silent *b*

Concept 2 for learning Irish Gaelic with spoken sound: the lenition of the *b* in the new writing reform becomes bh, but the former used dot could be re-instated to indicate lenition and below is spoken sound in broad or slender.

Concept 2
broad *b*
silent *b*

Concept 2: the lenition of the *b* in the new writing reform becomes bh, but the former used dot could be re-instated to indicate lenition. To indicate slender consonant the diacritical mark 'grave' could be used - to indicate the pronunciation of 'v'.

Concept 2
broad *c*
silent *c*

Concept 2 for learning Irish Gaelic with spoken sound: the lenition of the *c* in the new writing reform becomes ch, but the former used dot could be re-instated to indicate lenition and below is spoken sound in broad or slender.

Concept 2
broad *c*
silent *c*

Concept 2: the lenition of the *c* in the new writing reform becomes ch, but the former used dot could be re-instated to indicate lenition.

Eventually the standard practice was to use the dot when writing in Gaelic script and the following it when writing in Irish. Thus *ch* and *ch* represent the same phonetic element in Modern Irish - therefore it would be good to simplify and write as spoken when possible - it should be omitted from lenition and written as it is spoken - a 'gurt' or 'like look'.

Concept 2
broad *d*
silent *d*

Concept 2
broad *d*
silent *d*

Concept 2 for learning Irish Gaelic with spoken sound: the lenition of the *d* in the new writing reform becomes dh, but the former used dot could be re-instated to indicate lenition and below is spoken sound in broad or slender.

Concept 2
broad *d*
silent *d*

Concept 2: the lenition of the *d* in the new writing reform becomes dh, but the former used dot could be re-instated to indicate lenition. To indicate slender consonant the diacritical mark 'grave' could be used - to indicate the pronunciation of 'v'.

Concept 2
broad *t*
silent *t*

Concept 2
broad *t*
silent *t*

Concept 2: If (broad and slender) - silent, go on and pronounce as usual. There are two possibilities: 1. the omission of letter and creating irregular word or grammar that indicates phonetic omission, there a strike through 'f' with two lines indicates letter is not spoken.

Concept 2
broad *t*
silent *t*

Concept 2
broad *g*
silent *g*

Concept 2
broad *g*
silent *g*

Concept 2 for learning Irish Gaelic with spoken sound: the lenition of the *g* in the new writing reform becomes gh, but the former used dot could be re-instated to indicate lenition and below is spoken sound in broad or slender.

Concept 2
broad *g*
silent *g*

Concept 2: the lenition of the *g* in the new writing reform becomes gh, but the former used dot could be re-instated to indicate lenition. To indicate slender consonant the diacritical mark 'grave' could be used - to indicate the pronunciation of 'v'.

Dot above - Latin diacritics to introduce lenition

Concept 2

The dot above in c.g.2 in Maltese, 2 in Polish, 4 in Lithuanian, and 5 c.d.f.g m.p.1 in traditional Irish typography to denote lenition

Concept 2 for learning Irish Gaelic with spoken sound: the lenition of the *b* in the new writing reform becomes bh, but the former used dot could be re-instated to indicate lenition and below is spoken sound in broad or slender.

Concept 2
broad *b*
silent *b*

Concept 2: the lenition of the *b* in the new writing reform becomes bh, but the former used dot could be re-instated to indicate lenition.

Concept 2

The dot above in c.g.2 in Maltese, 2 in Polish, 4 in Lithuanian, and 5 c.d.f.g m.p.1 in traditional Irish typography to denote lenition

Concept 2 for learning Irish Gaelic with spoken sound: the lenition of the *c* in the new writing reform becomes ch, but the former used dot could be re-instated to indicate lenition and below is spoken sound in broad or slender.

Concept 2
broad *c*
silent *c*

Concept 2: the lenition of the *c* in the new writing reform becomes ch, but the former used dot could be re-instated to indicate lenition.

Concept 2

The dot above in c.g.2 in Maltese, 2 in Polish, 4 in Lithuanian, and 5 c.d.f.g m.p.1 in traditional Irish typography to denote lenition

Concept 2 for learning Irish Gaelic with spoken sound: the lenition of the *d* in the new writing reform becomes dh, but the former used dot could be re-instated to indicate lenition and below is spoken sound in broad or slender.

Concept 2
broad *d*
silent *d*

Concept 2: the lenition of the *d* in the new writing reform becomes dh, but the former used dot could be re-instated to indicate lenition.

Concept 2

The dot above in c.g.2 in Maltese, 2 in Polish, 4 in Lithuanian, and 5 c.d.f.g m.p.1 in traditional Irish typography to denote lenition

Concept 2 for learning Irish Gaelic with spoken sound: the lenition of the *f* in the new writing reform becomes fh, but the former used dot could be re-instated to indicate lenition and below is spoken sound in broad or slender.

Concept 2
broad *f*
silent *f*

Concept 2: the lenition of the *f* in the new writing reform becomes fh, but the former used dot could be re-instated to indicate lenition.

Concept 2

The dot above in c.g.2 in Maltese, 2 in Polish, 4 in Lithuanian, and 5 c.d.f.g m.p.1 in traditional Irish typography to denote lenition

Concept 2 for learning Irish Gaelic with spoken sound: the lenition of the *g* in the new writing reform becomes gh, but the former used dot could be re-instated to indicate lenition and below is spoken sound in broad or slender.

Concept 2
broad *g*
silent *g*

Concept 2: the lenition of the *g* in the new writing reform becomes gh, but the former used dot could be re-instated to indicate lenition.

2

The dot above in c.g.2 in Maltese, 2 in Polish, 4 in Lithuanian, and 5 c.d.f.g m.p.1 in traditional Irish typography to denote lenition

Concept 2
broad *b*
silent *b*

Dot above - Latin diacritics to introduce lenition

Concept 2
broad *b*
silent *b*

Concept 2 for learning Irish Gaelic with spoken sound: the lenition of the *b* in the new writing reform becomes bh, but the former used dot could be re-instated to indicate lenition and below is spoken sound in broad or slender.

Concept 2
broad *b*
silent *b*

Concept 2: the lenition of the *b* in the new writing reform becomes bh, but the former used dot could be re-instated to indicate lenition. To indicate slender consonant the diacritical mark 'grave' could be used - to indicate the pronunciation of 'v'.

Concept 2
broad *p*
silent *p*

Concept 2
broad *p*
silent *p*

Concept 2 for learning Irish Gaelic with spoken sound: the lenition of the *p* in the new writing reform becomes ph, but the former used dot could be re-instated to indicate lenition and below is spoken sound in broad or slender.

Concept 2
broad *p*
silent *p*

Concept 2: the lenition of the *p* in the new writing reform becomes ph, but the former used dot could be re-instated to indicate lenition.

Concept 2
broad *s*
silent *s*

Concept 2
broad *s*
silent *s*

Concept 2 for learning Irish Gaelic with spoken sound: the lenition of the *s* in the new writing reform becomes sh, but the former used dot could be re-instated to indicate lenition and below is spoken sound in broad or slender.

Concept 2
broad *s*
silent *s*

Concept 2: the lenition of the *s* in the new writing reform becomes sh, but the former used dot could be re-instated to indicate lenition.

Concept 2
broad *t*
silent *t*

Concept 2
broad *t*
silent *t*

Concept 2 for learning Irish Gaelic with spoken sound: the lenition of the *t* in the new writing reform becomes th, but the former used dot could be re-instated to indicate lenition and below is spoken sound in broad or slender.

Concept 2
broad *t*
silent *t*

Concept 2: the lenition of the *t* in the new writing reform becomes th, but the former used dot could be re-instated to indicate lenition.

Dot above - Latin diacritics to introduce lenition

Concept 2

The dot above in c.g.2 in Maltese, 2 in Polish, 4 in Lithuanian, and 5 c.d.f.g m.p.1 in traditional Irish typography to denote lenition

Concept 2 for learning Irish Gaelic with spoken sound: the lenition of the *m* in the new writing reform becomes mh, but the former used dot could be re-instated to indicate lenition and below is spoken sound in broad or slender.

Concept 2
broad *m*
silent *m*

Concept 2: the lenition of the *m* in the new writing reform becomes mh, but the former used dot could be re-instated to indicate lenition.

Concept 2

The dot above in c.g.2 in Maltese, 2 in Polish, 4 in Lithuanian, and 5 c.d.f.g m.p.1 in traditional Irish typography to denote lenition

Concept 2 for learning Irish Gaelic with spoken sound: the lenition of the *p* in the new writing reform becomes ph, but the former used dot could be re-instated to indicate lenition and below is spoken sound in broad or slender.

Concept 2
broad *p*
silent *p*

Concept 2: the lenition of the *p* in the new writing reform becomes ph, but the former used dot could be re-instated to indicate lenition.

Concept 2

The dot above in c.g.2 in Maltese, 2 in Polish, 4 in Lithuanian, and 5 c.d.f.g m.p.1 in traditional Irish typography to denote lenition

Concept 2 for learning Irish Gaelic with spoken sound: the lenition of the *s* in the new writing reform becomes sh, but the former used dot could be re-instated to indicate lenition and below is spoken sound in broad or slender.

Concept 2
broad *s*
silent *s*

Concept 2: the lenition of the *s* in the new writing reform becomes sh, but the former used dot could be re-instated to indicate lenition.

Concept 2

The dot above in c.g.2 in Maltese, 2 in Polish, 4 in Lithuanian, and 5 c.d.f.g m.p.1 in traditional Irish typography to denote lenition

Concept 2 for learning Irish Gaelic with spoken sound: the lenition of the *t* in the new writing reform becomes th, but the former used dot could be re-instated to indicate lenition and below is spoken sound in broad or slender.

Concept 2
broad *t*
silent *t*

Concept 2: the lenition of the *t* in the new writing reform becomes th, but the former used dot could be re-instated to indicate lenition.

3

The spoken sound is written and in this 'upside down' solution the letter is visualised above - this is concept has the emphasis on spoken sound not written equivalent, but it shows how it is written in its above descriptor

New Typeface Comparison of Concepts

Radical approach - write as you read

In French, the circumflex generally marks the former presence of a consonant (usually a) that was deleted and is no longer pronounced. It could be applied to Irish Gaelic in the way that the 'w' is spoken, but originally derived from the 'u'.

Concept 3
broad b
silent b

bh bh [bh] (bh) [^]W
bh bh [bh] (bh) [^]V

Concept 3
broad ch
silent ch

[^]ch
Eventually the standard ~~précédent~~ was to use ~~ch~~ when writing in Gaelic script and the following h when writing in Latin. This h and ch represent the same phonetic element in Modern Irish - therefore it would be good to have a h and write as-spoken when possible - it should be omitted from lexicon and written as it is spoken - a gural 'ch' like loch.

Concept 3
broad d
silent d

dh dh [dh] (dh) [^]g
dh dh [dh] (dh) [^]y

Writing as speaking

Concept 3
broad w

bh bh ^{bh}W ^{bh}W [bh] (bh) W W
not readable not readable

Concept 3
slender v

bh bh ^{bh}V ^{bh}V [bh] (bh) V V
not readable not readable

Concept 3
broad w
slender v

ch ch ^{ch}ch ^{ch}ch [ch] (ch) ch ch
not readable not readable

Concept 3
broad g

dh dh ^{dh}g ^{dh}g [dh] (dh) g g
not readable not readable

Concept 3
slender y

dh dh ^{dh}y ^{dh}y [dh] (dh) y y
not readable not readable

3

The spoken sound is written and in this 'upside down' solution the letter is visualised above - this is concept has the emphasis on spoken sound not written equivalent, but it shows how it is written in its above descriptor

New Typeface Comparison of Concepts

Radical approach - write as you read

Concept 3
broad f
silent f

f

Concept 3
broad g
silent g

gh gh [gh] (gh) [^]g
gh gh [gh] (gh) [^]y

Concept 3
broad d
silent d

mh mh [mh] (mh) [^]W
mh mh [mh] (mh) [^]V

Writing as speaking

Concept 3
broad w
slender v

fh fh ^{fh}0 ^{fh}0 [fh] (fh) 0 0
not readable not readable

voted out in assessment session in design agency by four test persons:
Elaine Tierney, Christian Kunnert and Kristin Haberstroh

Concept 3
broad g

gh gh ^{gh}g ^{gh}g [gh] (gh) g g
not readable not readable

Concept 3
broad y

gh gh ^{gh}y ^{gh}y [gh] (gh) y y
not readable not readable

Concept 3
broad w

mh mh ^{mh}W ^{mh}W [mh] (mh) W W
not readable not readable

Concept 3
slender v

mh mh ^{mh}V ^{mh}V [mh] (mh) V V
not readable not readable

3

The spoken sound is written and in this 'upside down' solution the lenition is visualised above > this is concept has the emphasis on spoken sound not written equivalent, but it shows how it is written in its above descriptor.

New Typeface Comparison of Concepts

Radical approach - write as you read

Concept 3
broad p
silent p

ph f ph f [ph] f (ph) f f

Concept 3
broad s
silent s

sh h sh h [sh] h (sh) h h

Concept 3
broad t
silent t

th h th h [th] h (th) h h

These are the sound changes that occur with lenition at the beginning of a word:

b -> bh
pronounced like W before A, O, or U; like V before E or I

c -> ch
pronounced like German "ch" (a light, guttural sound) before A, O, U; like German "ich" (a lighter, breathy, hissy H) before E or I

d -> dh
this is a deep, guttural, throat clearing sound that doesn't exist in English or many other languages. If you can make the "ch" sound, try to vibrate your vocal cords. The result will be how "ch" is pronounced before A, O, U. Before E or I, it is pronounced like "y"

f -> fh
silent

g -> gh
exactly like "dh"

m -> mh
exactly like "bh"

p -> ph
just like in English

s -> sh
this is pronounced just like English "h"

t -> th
just like "sh," this is pronounced like English "h"

Writing as speaking

Concept 3
silent

ph f ph f (ph) f (ph) f (ph) f

The spoken sound is written and in this 'upside down' solution the lenition is visualised above > this is concept has the emphasis on spoken sound not written equivalent, but it shows how it is written in its above descriptor.

Concept 3
slender h

sh h sh h (sh) h (sh) h

Concept 3
broad h

th h th h (th) h (th) h

The spoken sound is written and in this 'upside down' solution the lenition is visualised above > this is concept has the emphasis on spoken sound not written equivalent, but it shows how it is written in its above descriptor.

4

Concepts in Action Comparison of Concepts

First test of concepts and their variations with the following words, that use the main occurrences of lenition:

1. bh > leabhar (book), mo bhus (my bus),
2. ch > oíche (night), loch (lake)
3. dh > dhá dhóras (two doors), veidhlín (violin)
4. fh > an fhuinneog (the window)
5. gh > sa ghairdín (in the garden), foghlaim (learning, to learn)
6. mh > talamh (land), snámh (swimming, to swim)
7. ph > mo phóca (my pocket)
8. sh > a sheoladh (his address)
9. th > thug (gave), máthair

bh > leabhar (book), mo bhus (my bus)

Concept 1

leabhar, mo bhus leabhar, mo bhus
leabhar, mo bhus leabhar, mo bhus
leabhar, mo bhus leabhar, mo bhus

Concept 2

leabhar, mo bhus leabhar, mo bhus
leabhar, mo bhus leabhar, mo bhus
leabhar, mo bhus leabhar, mo bhus

Concept 3

leabhar, mo bhus leabhar, mo bhus
leabhar, mo bhus leabhar, mo bhus
leabhar, mo bhus

ch > oíche (night), loch (lake)

Concept 1, 2, 3

oíche, loch

dh > dhá dhoras (two doors), veidhlín (violin)

Concept 1

dhá dhoras, veidhlín

dhá dhoras, veidhlín

dhá dhoras, veidhlín

dhá dhoras, veidhlín

dhá dhoras, veidhlín

dhá dhoras, veidhlín

Concept 2

dhá dhoras, veidhlín

dhá dhoras, veidhlín

dhá dhoras, veidhlín

dhá dhoras, veidhlín

dhá dhoras, veidhlín

dhá dhoras, veidhlín

Concept 3

dhá dhoras, veidhlín

dhá dhoras, veidhlín

dhá dhoras, veidhlín

dhá dhoras, veidhlín

dhá dhoras, veidhlín

fh > an fhuinneog (the window)

Concept 1, 2

an fhuinneog

an fhuinneog

an fhuinneog

an fhuinneog

an fhuinneog

Concept 3

an fhuinneog

an fhuinneog

an fhuinneog

an fhuinneog

an fhuinneog

gh > sa ghairdín (in the garden), foghlaim (learning, to learn)

Concept 1

sa ghairdín, foghlaim

sa ghairdín, foghlaim

sa ghairdín, foghlaim

sa ghairdín, foghlaim

sa ghairdín, foghlaim

sa ghairdín, foghlaim

Concept 2

sa ghairdín, foghlaim

sa ghairdín, foghlaim

sa ghairdín, foghlaim

sa ghairdín, foghlaim

sa ghairdín, foghlaim

Concept 3

sa ghairdín, foghlaim

sa ghairdín, foghlaim

sa ghairdín, foghlaim

sa ghairdín, foghlaim

sa ghairdín, foghlaim

mh > talamh (land), snámh (swimming, to swim)

Concept 1

talamh, snámh

talamh, snámh

talamh, snámh

talamh, snámh

talamh, snámh

talamh, snámh

Concept 2

talamh, snámh

talamh, snámh

talamh, snámh

talamh, snámh

talamh, snámh

talamh, snámh

Concept 3

talamh, snámh

talamh, snámh

talamh, snámh

talamh, snámh

talamh, snámh

ph > mo phóca (my pocket)

Concept 1

mo ^{ph} phóca	mo ^{ph} phóca
mo ^{ph} phóca	mo ^{ph} phóca
mo ^{ph} phóca	mo ^{ph} phóca

Concept 2

mo ^f phóca	mo ^f phóca
mo ^f phóca	mo ^f phóca
mo ^f phóca	

Concept 3

mo ^{ph} fóca	mo ^{ph} fóca
mo ^(ph) fóca	mo ^(ph) fóca
mo ^h fóca	

sh > a sheoladh (his address)

Concept 1

a ^{sh} sheoladh	a ^{sh} sheoladh
a ^{sh} sheoladh	a ^{sh} sheoladh
a ^{sh} sheoladh	a ^{sh} sheoladh

Concept 2

a ^h sheoladh	a ^h sheoladh
a ^h sheoladh	a ^h sheoladh
a ^h sheoladh	a ^h sheoladh

Concept 3

a ^{sh} heol ^{adh}	a ^{sh} heol ^{adh}
a ^(sh) heol ^(adh)	a ^(sh) heol ^(adh)
a ^h heol ^h	

th > thug (gave), máthair

Concept 1

th ^h ug, má ^h thair	th ^h ug, má ^h thair
th ^h ug, má ^h thair	th ^h ug, má ^h thair
th ^h ug, má ^h thair	th ^h ug, má ^h thair

Concept 2

th ^h ug, má ^h thair	th ^h ug, má ^h thair
th ^h ug, má ^h thair	th ^h ug, má ^h thair
th ^h ug, má ^h thair	th ^h ug, má ^h thair

Concept 3

h ^{sh} ug, má ^{sh} hair	h ^{sh} ug, má ^{sh} hair
h ^(sh) ug, má ^(sh) hair	h ^(sh) ug, má ^(sh) hair
h ^h ug, má ^h hair	

ch > oíche (night), loch (lake)

Concept 1, 2, 3

oíche, loch

dh > dhá dhoras (two doors), veidhlín (violin)

Concept 1

dhá dhoras, veidhlín

dhá dhoras, veidhlín

dhá dhoras, veidhlín

dhá dhoras, veidhlín

dhá dhoras, veidhlín

dhá dhoras, veidhlín

Concept 2

dhá dhoras, veidhlín

dhá dhoras, veidhlín

dhá dhoras, veidhlín

dhá dhoras, veidhlín

dhá dhoras, veidhlín

dhá dhoras, veidhlín

Concept 3

dhá dhoras, veidhlín

dhá dhoras, veidhlín

dhá dhoras, veidhlín

dhá dhoras, veidhlín

dhá dhoras, veidhlín

fh > an fhuinneog (the window)

Concept 1, 2

an fhuinneog

an fhuinneog

an fhuinneog

an fhuinneog

an fhuinneog

Concept 3

an fhuinneog

an fhuinneog

an fhuinneog

an fhuinneog

an fhuinneog

gh > sa ghairdín (in the garden), foghlaim (learning, to learn)

Concept 1

sa ghairdín, foghlaim

sa ghairdín, foghlaim

sa ghairdín, foghlaim

sa ghairdín, foghlaim

sa ghairdín, foghlaim

sa ghairdín, foghlaim

Concept 2

sa ghairdín, foghlaim

sa ghairdín, foghlaim

sa ghairdín, foghlaim

sa ghairdín, foghlaim

sa ghairdín, foghlaim

Concept 3

sa ghairdín, foghlaim

sa ghairdín, foghlaim

sa ghairdín, foghlaim

sa ghairdín, foghlaim

sa ghairdín, foghlaim

mh > talamh (land), snámh (swimming, to swim)

Concept 1

talamh, snámh

talamh, snámh

talamh, snámh

talamh, snámh

talamh, snámh

talamh, snámh

Concept 2

talamh, snámh

talamh, snámh

talamh, snámh

talamh, snámh

talamh, snámh

talamh, snámh

Concept 3

talamh, snámh

talamh, snámh

talamh, snámh

talamh, snámh

talamh, snámh

ph > mo phóca (my pocket)

Concept 1

mo ^{ph} phóca	mo ^{ph} phóca
mo ^{ph} phóca	mo ^{ph} phóca
mo ^{ph} phóca	mo ^{ph} phóca

Concept 2

mo ^f fóca	mo ^f fóca
mo ^f fóca	mo ^f fóca
mo ^f fóca	

Concept 3

mo ^{ph} fóca	mo ^{ph} fóca
mo ^(ph) fóca	mo ^(ph) fóca
mo ^h fóca	

sh > a sheoladh (his address)

Concept 1

a ^{sh} sheoladh	a ^{sh} sheoladh
a ^{sh} sheoladh	a ^{sh} sheoladh
a ^{sh} sheoladh	a ^{sh} sheoladh

Concept 2

a ^h šeoladh	a ^h šeoladh
a ^h šeoladh	a ^h šeoladh
a ^h šeoladh	a ^h šeoladh

Concept 3

a ^{sh} heolā ^{adh}	a ^{sh} heolā ^{adh}
a ^(sh) heolā ^(adh)	a ^(sh) heolā ^(adh)
a ^h heolā	

th > thug (gave), máthair

Concept 1

thug, máthair	thug, máthair
thug, máthair	thug, máthair
thug, máthair	thug, máthair

Concept 2

^h tug, má ^h tair	^h tug, má ^h tair
^h tug, má ^h tair	^h tug, má ^h tair
^h tug, má ^h tair	^h tug, má ^h tair

Concept 3

^{sh} hug, má ^{sh} hair	^{sh} hug, má ^{sh} hair
^(sh) hug, má ^(sh) hair	^(sh) hug, má ^(sh) hair
^h hug, má ^h hair	

New Typeface

Comparison of Concepts

Concept 1:
bh using descender
at the bottom of letters
that shows the spoken
equivalent sound in
English.

Concept 1a:
bh becomes connected ligature
using descender at the bottom
of letters that shows the
spoken equivalent sound in
English.

Concept 1b:
bh becomes connected
ligature and descender
indicates pronunciation.

bh bh bh bh bh bh
w w w w w w

bh bh bh bh bh bh
v v v v v v

ch ch ch ch ch ch
ch ch ch ch ch ch

dh dh dh dh dh dh
g g g g g g

dh dh dh dh dh dh
y y y y y y

Old Typeface

Comparison of Concepts

Concept 1:
bh using descender
at the bottom of letters
that shows the spoken
equivalent sound in
English.

Concept 1a:
bh becomes connected ligature
using descender at the bottom
of letters that shows the
spoken equivalent sound in
English.

bh bh bh bh
w w w w

bh bh bh bh
v v v v

ch ch ch ch
ch ch ch ch

dh dh dh dh
g g g g

dh dh dh dh
y y y y

not good looking

what needed

too much

highlight

height less

try connect well

Exon font silent
acair totally silent
ash
calsh
ash
dorn
madh
madh
daga
g tadhy
aig
hah
hah
mair
vir
ulre
ma
is

c → gets h
ai → i silent
s → gets sh
d → silent
dh → silent
dh → gets i
mh → gets v
ui → u silent → i
mh → gets v
ui → gets i → u silent
c → gets a
t → silent

ghasur
cais
ndorn
mhör

letters like gh completely
like eg ai one letter/two
letter silent
adn but one phoneme

letters like c (k) letters change
mh (v/w) consonant/vowel
(sometimes e (a)) in spoken language

the need of alternative
as this has problem with port

nd indiani
a do adini
aif hah

indidan nada hanna a adon
indian ohioan indian

claim says
feto

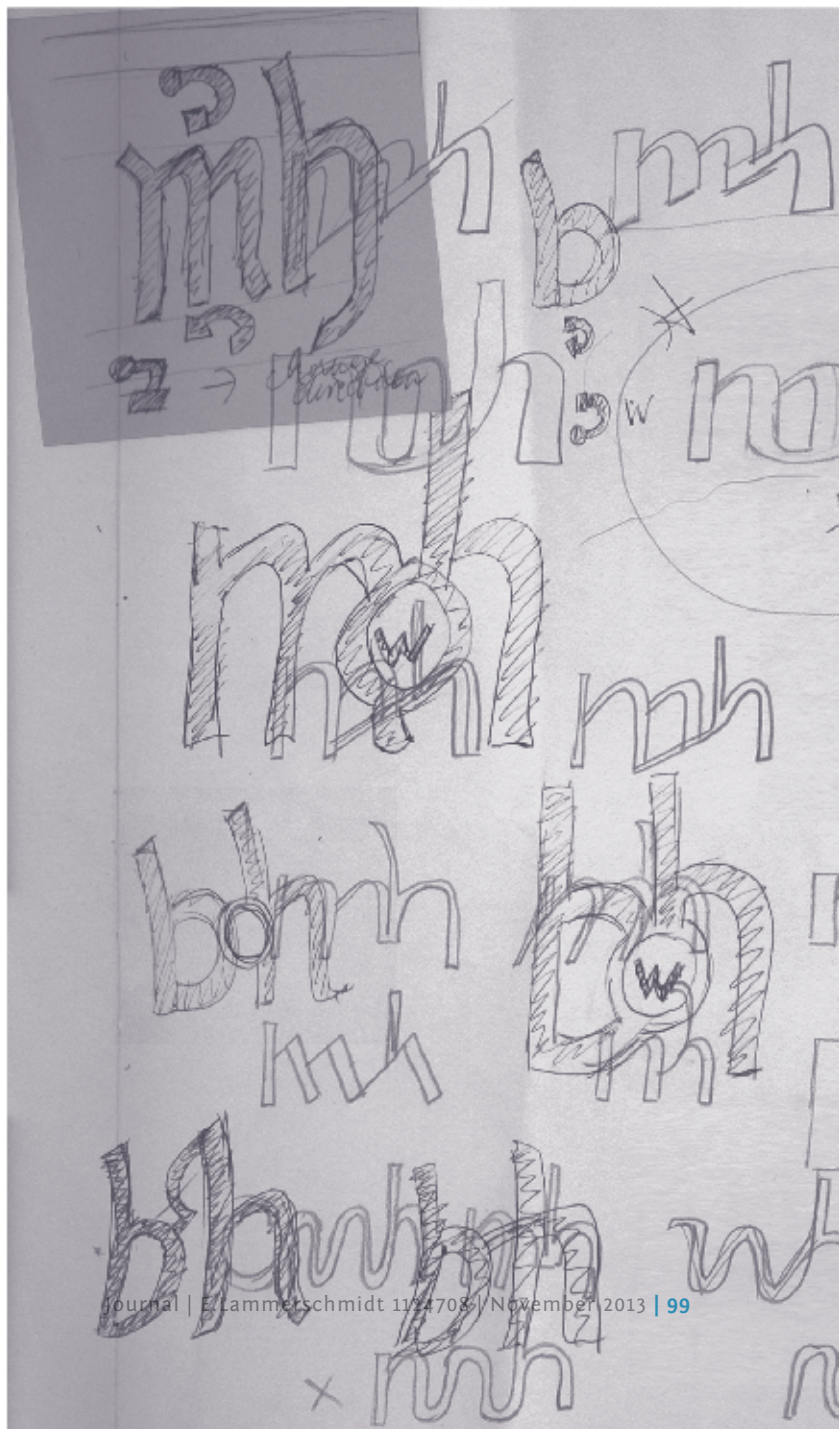
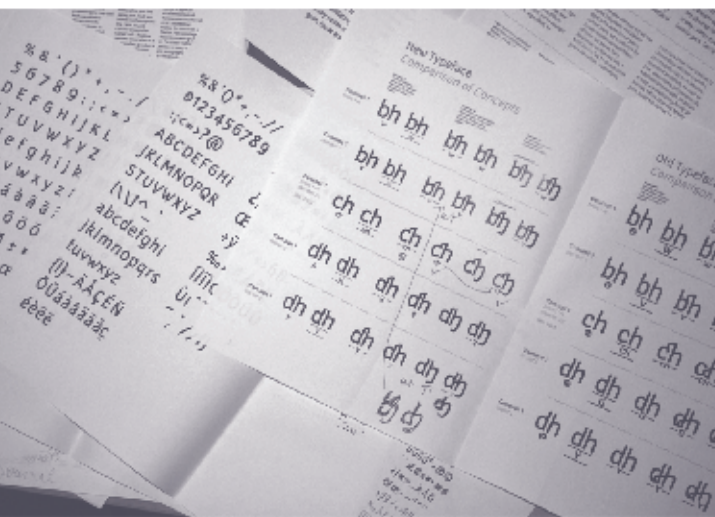
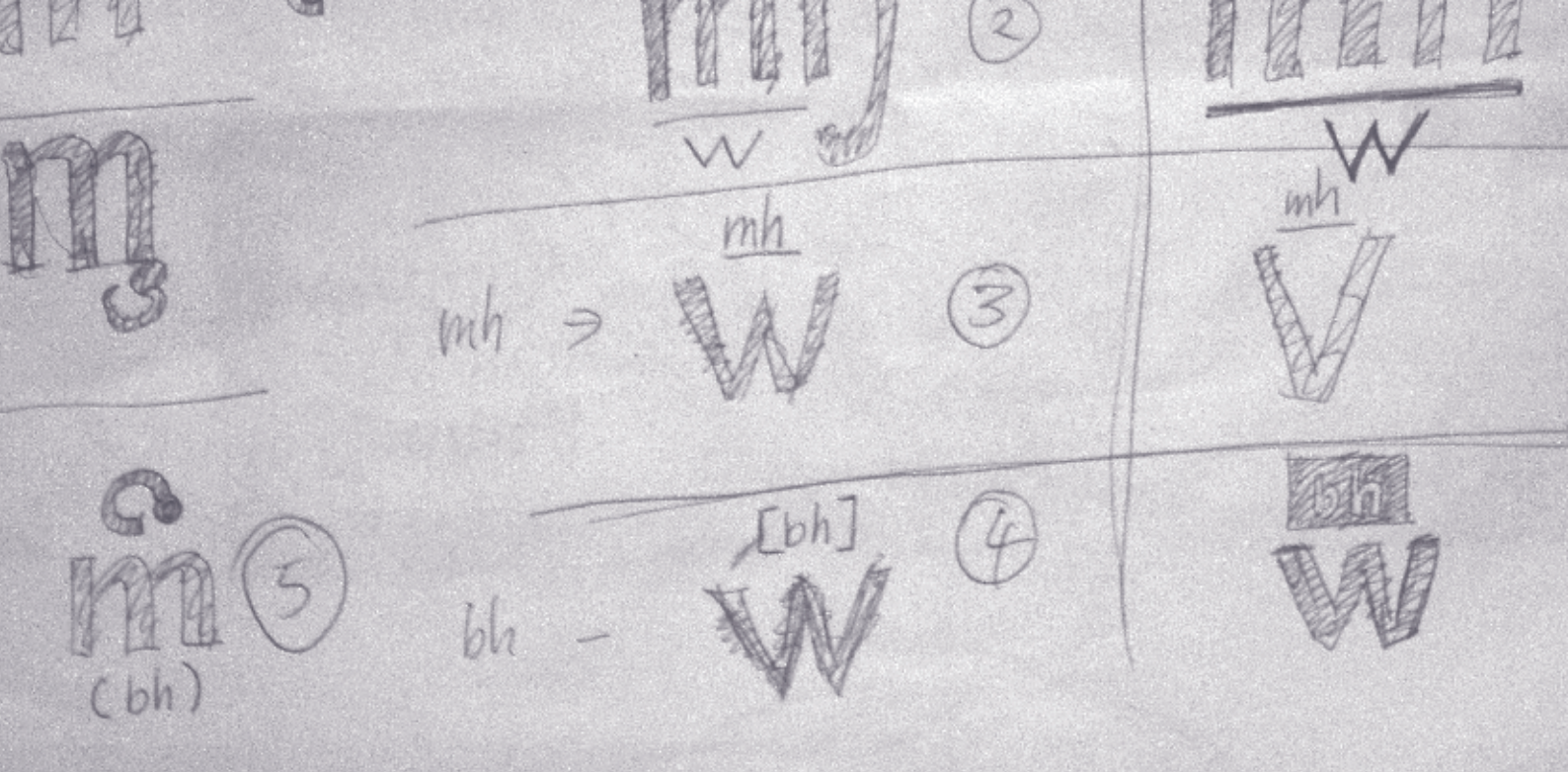
brood slender

bh → w bh → v
ch → ch ch → "ch"
dh → "gh" dh → y
fh → silent fh → silent
gh → "gh" gh → y
mh → w mh → v
ph → f ph → f
ch → h ch → h

b c d f g m
p s t

u o e a
u e e a
b b
b b

dh g



CREATION OF CONCEPTS - DEVELOPMENT

1. Traditional approach

Concept 1 shows the descriptor at the top and bottom of the lenition with the spoken equivalent sound in English.

IDEA

The core of this approach are 'soft' ligatures, with this I mean the usage of ligatures that *only* indicate lenition, and keeping the integrity of the letters that are generally used in common practice intact. There is as well a solution that shows the lenition as it is written as it is usual practice just showing the descriptor of its pronunciation.

Pros:

- It heightens the awareness where lenition is used, makes it easier to grasp
- It makes it easier to remember how lenition is spoken and what the words mean
- It is probably the most acceptable concept as it does not interfere with the writing reform and makes the transfer from learning the language and its application very easy.

Cons:

- It requires a switch in language settings to the Irish character set for the typeface to work on computer.

2. Dot above, below or diacritic ogonek used in other Latin languages - to introduce lenition

Concept 2 uses the former used dot or the ogonek to indicate lenition, accompanied with the spoken sound in broad or slender.

IDEA

This approach could lead to an interesting development for a typeface for Irish Gaelic language learners (*beginners like me*). The Glyphs could incorporate a grapheme with the spoken sound on top or bottom, that teach the learner how the letter/words are spoken, but show as well the correct writing system going with it.

Karan, Elke. (2006). *Writing System Development and Reform: A Process*. (M.A. Theses in Linguistics at the University of North Dakota). Retrieved from http://arts-sciences.und.edu/summer-institute-of-linguistics/theses/_files/docs/2006-karan-elke.pdf

Pros:

- It heightens the awareness where lenition is used, makes it easier to grasp
- It makes it easier to remember how lenition is spoken and what the words mean.

Cons:

- It requires a switch in language settings to the Irish character set for the typeface to work on computer.
- It requires amendments in writing system in the case of the ogonek and dot (*below*) or a fall back to old usage in the usage of the dot (*above*).

3. Radical approach - write as you read

Concept 3 is a 'upside down' solution with the common way of writing visualised above or below. This is concept has the emphasis on spoken sound not written equivalent. It shows how it is written in its above descriptor or has a grapheme that indicates lenition.

IDEA

This concept sees a very radical way, of writing as you speak. This concept is highly ambitious as in Karen's (2006) guidelines, *history* and *language and cultural development* are also part of a writing system. Such a concept would most possibly fail on several levels: *grammatical rules* (the ones I am not aware of and capable learning in this short period of time), *acceptance of current Irish Gaelic speakers* (who would not most likely not support a massive step like that).

Pros:

- It heightens the awareness where lenition is used, makes it easier to grasp
- It makes it easier to remember how lenition is spoken and what the words mean.

Cons:

- The picture of the words are so different from the usual practice that it easily could confuse the learner as the words might be remember unconsciously as they are spoken
- The transition from learning the language to its application in its usual practice might be difficult
- It is most likely to receive a lot of criticism because of the imbalance to the usual practice.

SURVEY

FOUR CONCEPTS - LENITION

[illegible]

Concepts in Action / Survey - As Gaelige

Before you start a few words to why on earth I started this project:
"Once upon a time there was a foreign girl that wanted to speak Irish Gaelic ..."



This Irish course is accompanied with a learning CD. By hearing the CD the spoken Irish Gaelic has little in common what you actually read. Furthermore the audio are spoken fast, so that you end up emulating your tongue. I tested various audio course with the same result.

It would be easier to learn the language if the typeface would indicate Lenthion, Eclipsis etc. and its usage. In my project I am trying to develop solutions to bridge the gap between spoken and written account starting with Lenthion.

On the right hand side is an example of an Irish Gaelic - Chinese learning course book - a current project at KulturaTürvey the agency I am working for the last six years. The pinyin system was developed in the 1980s based on earlier forms of romanisation to make it easier to learn the language. Pinyin means translated: "spelled-out sounds".

This system is the inspiration for my project. At the end, I will use the most popular option of my proposed systems as a typeface running above the Irish Gaelic sentences to make it easier to bridge the mental gap between reading and speaking.



Example: How to vote ...

Concept 1	Concept 2	Concept 3
leabhar, mo bhus	leabhar, mo bhus	leabhar, mo bhus
oiche, loch	oiche, loch	oiche, loch
dhá dhóras, veidhlín	dhá dhóras, veidhlín	dhá dhóras, veidhlín
an fuinneog	an fuinneog	an fuinneog
sa ghairdín, foghlaim	sa ghairdín, foghlaim	sa ghairdín, foghlaim
talamh, snámh	talamh, snámh	talamh, snámh
mo phóca	mo phóca	mo phóca
a sheoladh	a sheoladh	a sheoladh
thug, máthair	thug, máthair	thug, máthair

Tick the check box for each of your favorite option

What is Lenthion? Lenthion (Lat. lenere = weaken) means that a consonant is spoken without a stop of the flow of air i.e. with breath aspirated; it is because of this that Lenthion is sometimes referred to as aspiration.

This means that Lenthion is a kind of sound change that alters consonants, making them more consonant. Basically, the plosive (stop or explosive) is replaced by its corresponding fricative.

This document contains 3 pages like the above page that presents concepts to be voted for.

Every of the three concepts has three variations to choose from. At the end I will ask you as well to vote for the favorite concept of the three.

Once you have voted by ticking the check boxes, please save your document so that the check boxes remain ticked and send it back to me. I would be ever grateful if you could participate. Lisa

Concept 1 - Pick your favourite out of the option

Variation 1

leabhar, mo bhus
oiche, loch
dhá dhóras, veidhlín
an fuinneog
sa ghairdín, foghlaim
talamh, snámh
mo phóca
a sheoladh
thug, máthair

Variation 2

leabhar, mo bhus
oiche, loch
dhá dhóras, veidhlín
an fuinneog
sa ghairdín, foghlaim
talamh, snámh
mo phóca
a sheoladh
thug, máthair

Variation 3

leabhar, mo bhus
oiche, loch
dhá dhóras, veidhlín
an fuinneog
sa ghairdín, foghlaim
talamh, snámh
mo phóca
a sheoladh
thug, máthair

1. Traditional approach

Concept 1 for learning Irish Gaelic with spoken sound: for example 'bh' using descriptor at the bottom of Lenthion that shows the spoken equivalent sound in English. First test of concepts and their variations with the following words, that use the main occurrences of Lenthion:

1. bh > leabhar (book), mo bhus (my bus),
2. ch > oiche (night), loch (lake)
3. dh > dhá dhóras (two doors), veidhlín (violin)
4. fh > an fuinneog (the window)
5. gh > sa ghairdín (in the garden), foghlaim (learning, to learn)
6. mh > talamh (land), snámh (swimming, to swim)
7. ph > mo phóca (my pocket)
8. sh > a sheoladh (his address)
9. th > thug (gave), máthair

Exceptions:
fh (brood and slender) - silent, go on and pronounce what follows. There are two possibilities: 1. the omission of letter and creating irregular verb or grapheme that indicates phonetic omission, here a stroke through - f with two lines indicates letter is not spoken in my concepts.

Thus C and ch represent the same phonetic element in Modern Irish - therefore it would be good to simply and write as spoken when possible - it should be omitted from Lenthion and written as it is spoken - a gurrá 'ch' like loch

Concept 2 - Pick your favourite out of the option

Variation 1

leab̃ar, mo b̃us
oíche, loch
ḁá ḁoras, veid̃lín
an f̃uinneog
sa ḡairdín, foḡlaim
talaṛṇ, snáṛṇ
mo p̃óca
a šeol̃aḁ
ṭug, máṭair

Variation 2

leab̃ar, mo b̃us
oíche, loch
ḁá ḁoras, veid̃lín
an f̃uinneog
sa ḡairdín, foḡlaim
talaṛṇ, snáṛṇ
mo p̃óca
a šeol̃aḁ
ṭug, máṭair

Concept 2 - Pick your favourite out of the option

Variation 1

leab̃ar, mo b̃us
oíche, loch
ḁá ḁoras, veid̃lín
an f̃uinneog
sa ḡairdín, foḡlaim
talaṛṇ, snáṛṇ
mo p̃óca
a šeol̃aḁ
ṭug, máṭair

Variation 2

leab̃ar, mo b̃us
oíche, loch
ḁá ḁoras, veid̃lín
an f̃uinneog
sa ḡairdín, foḡlaim
talaṛṇ, snáṛṇ
mo p̃óca
a šeol̃aḁ
ṭug, máṭair

Variation 3

leab̃ar, mo b̃us
oíche, loch
ḁá ḁoras, veid̃lín
an f̃uinneog
sa ḡairdín, foḡlaim
talaṛṇ, snáṛṇ
mo p̃óca
a šeol̃aḁ
ṭug, máṭair

2. Dot above, below or diacritic ogonek used in other Latin languages - to introduce lenition
- Concept 3 for learning Irish Gaelic with spoken sound: the lenition of the b in the new writing reform becomes bh, but the former used dot could be re-instated to indicate lenition, accompanies with spoken sound in broad or slender
1. bh > leabhar (book), mo bhus (my bus),
 2. ch > oíche (night), loch (lake)
 3. dh > dhá dhoras (two doors), veidhlín (violin)
 4. fh > an fhuinneog (the window)
 5. gh > sa ghairdín (in the garden), foghlaim (learning, to learn)
 6. mh > talamh (land), snámh (swimming, to swim)
 7. ph > mo phóca (my pocket)
 8. sh > a sheoladh (his address)
 9. th > thug (gave), máthair

Concept 3 - Pick your favourite out of the option

Variation 1

lā ^h war, mo ṽus
oíche, loch
ḡá ḡoras, veiỹlín
an f̃uinneog
sa ḡairdín, foylaim
tala ^w , sná ^v
mo f̃óca
a heolā
h̃ug, máh̃air

Variation 2

lā ^h war, mo ṽus
oíche, loch
ḡá ḡoras, veiỹlín
an f̃uinneog
sa ḡairdín, foylaim
tala ^w , sná ^v
mo f̃óca
a heolā
h̃ug, máh̃air

The matter of the survey

The end of my final Master project is in sight. However, I am in need of help. A great deal of help.

Therefore I am asking you, if you could spare some minutes to look at my concepts and vote for your favorite options.

I remain with many thanks and kindest regards,

Lisa

Page 1

Concepts in Action / Survey - As Gaelige

Before you start a few words to why on earth I started this project:
"Once upon a time there was a foreign girl that wanted to speak Irish Gaelic. ..."



This Irish course is accompanied with a learning CD. By hearing the CD the spoken Irish Gaelic has little in common what you actually read. Furthermore the audio are spoken fast, so that you end up straining your tongue. I tested various audio course with the same result.

It would be easier to learn the language if the typeface would indicate lenition. Colours etc. and its usage. In my project I am trying to develop solutions to bridge the gap between spoken and written account, starting with lenition.

On the right hand side is an example of an Irish Gaelic - Chinese learning course book - a current project at Kunmeta Terney the agency I am working for the last six years. The project system was developed in the 1980s based on earlier forms of romanisation to make it easier to learn the language. Pinyin means translated "spelled-out sounds".

This system is the inspiration for my project. At the end, I will use the most popular option of my proposed systems as a typeface running above the Irish Gaelic sentences to make it easier to bridge the mental gap, between reading and speaking.



Page 2

Example: How to vote ...

Concept 1 - Pick your favourite out of the option

Variation 1	Variation 2	Variation 3
leabhar, mo bhus	leabhar, mo bhus	leabhar, mo bhus
oiche, loch	oiche, loch	oiche, loch
dhá dhoras, veidhlín	dhá dhoras, veidhlín	dhá dhoras, veidhlín
an fuinneog	an fuinneog	an fuinneog
sa ghairdín, foghlaim	sa ghairdín, foghlaim	sa ghairdín, foghlaim
talamh, snámh	talamh, snámh	talamh, snámh
mo phóca	mo phóca	mo phóca
a sheoladh	a sheoladh	a sheoladh
thug, máthair	thug, máthair	thug, máthair

☐
☐
☒
☐

Tick the check box for each of your favorite option

What is Lenition? Lenition (lat. lenere = weaken) means that a consonant is spoken without a stop of the flow of air i.e. with breath or aspirated. It is because of this that lenition is sometimes referred to as aspiration.

This means that lenition is a kind of sound change that alters consonants, making them more sonorous. Basically, the plosive (stop or explosive) is replaced by its corresponding fricative.

This document contains 3 pages like the above page that presents concepts to be voted for.

Every of the three concepts has three variations to choose from. At the end I will ask you as well to vote for the favorite concept of the three.

Once you have voted by ticking the check boxes, please save your document so that the check boxes remain ticked and send it back to me. I would be ever grateful if you could participate. Lisa

Page 3

Final Survey as it was sent out to the selected test users:

Concept 1 - Pick your favourite out of the option

Variation 1

Variation 2

Variation 3

leabhar, mo bhus	leabhar, mo bhus
oiche, loch	oiche, loch
dhá dhoras, veidhlín	dhá dhoras, veidhlín
an fuinneog	an fuinneog
sa ghairdín, foghlaim	sa ghairdín, foghlaim
talamh, snámh	talamh, snámh
mo phóca	mo phóca
a sheoladh	a sheoladh
thug, máthair	thug, máthair

☐
☐

☐ Tick this box if you favour the overall concept one

Page 4 and 5

Concept 2 - Pick your favourite out of the option

Variation 1

Variation 2

Variation 3

leabhar, mo bhus	leabhar, mo bhus
oiche, loch	oiche, loch
dá dhoras, veidhlín	dá dhoras, veidhlín
an fuinneog	an fuinneog
sa ghairdín, foghlaim	sa ghairdín, foghlaim
talamh, snámh	talamh, snámh
mo phóca	mo phóca
a sheoladh	a sheoladh
thug, máthair	thug, máthair

☐
☐

Page 6 and 7

☐ Tick this box if you favour the overall concept two

Concept 3 - Pick your favourite out of the option

Variation 1

Variation 2

Variation 3

lāwar, mo vus	lāwar, mo vus
oiche, loch	oiche, loch
gá dhoras, veiylin	gá dhoras, veiylin
an fuinneog	an fuinneog
sa ghairdín, foylaim	sa ghairdín, foylaim
talaŵ, snāv	talaŵ, snāv
mo fōca	mo fōca
a fheolā	a fheolā
hug, māhair	hug, māhair

☐
☐

☐ Tick this box if you favour the overall concept three

Page 8 and 9

1. Traditional approach
Concept 1 for learning Irish Gaelic with spoken sound for example 'bh' using descriptor at the bottom of lenition that shows the spoken equivalent sound in English. First test of concepts and their variations with the following words, that use the main occurrences of lenition.

1. bh > leabhar (book), mo bhus (my bus),
2. ch > oiche (night), loch (lake)
3. dh > dhá dhoras (two doors), veidhlín (violin)
4. fh > an fhuinneog (the window)
5. gh > sa ghairdín (in the garden), foghlaim (learning, to learn)
6. mh > talamh (land), snámh (swimming, to swim)
7. ph > mo phóca (my pocket)
8. sh > a sheoladh (his address)
9. th > thug (gave), máthair

Exceptions:
fh (broad and slender) - silent, go on and pronounce what follows. There are two possibilities: i) the omission of letter and creating irregular verb or grapheme that indicates phonetic omission. Here a stroke through - f with two lines indicates letter is not spoken in my concepts.

Because ch represent the same phonetic element in Modern Irish, I decided to simplify and write as spoken when possible - and therefore omitted it from any treatment, as it is written as it is spoken - a gural 'ch' like loch.

2. Dot above, below or diacritic ogonek used in other Latin languages - to introduce lenition

Concept 2 for learning Irish Gaelic with spoken sound: the lenition of the b in the new writing reform becomes bh, but the former used dot could be re-created to indicate lenition, accompanies with spoken sound in broad or slender.

1. bh > leabhar (book), mo bhus (my bus),
2. ch > oiche (night), loch (lake)
3. dh > dhá dhoras (two doors), veidhlín (violin)
4. fh > an fhuinneog (the window)
5. gh > sa ghairdín (in the garden), foghlaim (learning, to learn)
6. mh > talamh (land), snámh (swimming, to swim)
7. ph > mo phóca (my pocket)
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fh (broad and slender) - silent, go on and pronounce what follows. There are two possibilities: i) the omission of letter and creating irregular verb or grapheme that indicates phonetic omission. Here a stroke through - f with two lines indicates letter is not spoken in my concepts.

Because ch represent the same phonetic element in Modern Irish, I decided to simplify and write as spoken when possible - and therefore omitted it from any treatment, as it is written as it is spoken - a gural 'ch' like loch.

3. Radical approach - "write as you read"
Concept 3 for learning Irish Gaelic with spoken sound: the spoken sound is written and in its "upside down" solution the lenition is visualised above.

This is concept has the emphasis on spoken sound not written equivalent, but it shows how it is written in its above descriptor or has a grapheme that indicates lenition.

1. bh > leabhar (book), mo bhus (my bus),
2. ch > oiche (night), loch (lake)
3. dh > dhá dhoras (two doors), veidhlín (violin)
4. fh > an fhuinneog (the window)
5. gh > sa ghairdín (in the garden), foghlaim (learning, to learn)
6. mh > talamh (land), snámh (swimming, to swim)
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8. sh > a sheoladh (his address)
9. th > thug (gave), máthair

Exceptions:
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Because ch represent the same phonetic element in Modern Irish, I decided to simplify and write as spoken when possible - and therefore omitted it from any treatment, as it is written as it is spoken - a gural 'ch' like loch.

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Artifact...lan.pdf
foldout...lan.pdf
Report...lan.pdf
super links
surveys

answered Surveys
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Doctor...s.webloc
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leabhar, mo bhus
oíche, loch
dhá dhóras, veidhlín
an fuinneog
sa ghairdín, foghlaim
talamh, snámh
mo phóca
a sheoladh
thug, máthair

☐

leabhar, mo bhus
oíche, loch
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an fuinneog
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talamh, snámh
mo phóca
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thug, máthair

☒

leabhar, mo bhus
oíche, loch
dhá dhóras, veidhlín
an fuinneog
sa ghairdín, foghlaim
talamh, snámh
mo phóca
a sheoladh
thug, máthair

☐

1. Traditional approach
Concept 1 for learning Irish leads with
spoken sound. For example 'bh' using
descriptions at the bottom of lexicon that
shows the spoken equivalent sound in
English. First text of concepts and their
variations with the following words, that
are the main occurrences of lexicon.

1. bh = leabhar (book), mo bhus (my boat)
2. ch = oíche (night), loch (lake)
3. dh = dhá dhóras (two doors), veidhlín (table)
4. an = an fuinneog (the window)
5. sa = sa ghairdín (in the garden), foghlaim (learning, to learn)
6. tamh = talamh (land), snámh (swimming, to swim)
7. ph = mo phóca (my pocket)
8. sh = a sheoladh (the address)
9. th = thug (gave), máthair

Lexicogram
In (book and leabhar) - which gives and pronounced
what follows. There are not possibilities in the
lexicogram of how and meaning together with a
grapheme that indicates phonetic variation here is
written through. Each has three different ways to be
spoken in the lexicon.

Because of represent the same phonetic elements
in modern Irish, it is decided to simplify and write as
question when possible - and the same answer to
from any lexicon, as this makes it to be written - a
gender 'th' the text.

☒ Tick this box if you favour the overall concept one

Re: Hi from Lisa from the type design workshop...
 Assign to a category

Sent: Thursday 7 November 2013 13:54
 To: Lisa Lammerschmidt
 Subject: Survey_Lenition_Please_fill_out_for_Gerlinde2.pdf (2.5 MB) [Preview](#)

A copy of this message is on the server. [Delete from server](#)

Hi Lisa,

Lovely to hear from you! Of course I remember you! :)

I am glad to see that your project is moving forward - very impressive to take on such a difficult challenge!
 I filled out the form based on what I think makes most sense to me and looks simply - I don't like when things are too messy. So generally your first or second option would work best for me - please bear in mind I don't know much about Gaelic.

Good luck with your masters - I am sure you will get it finished and do very well!
 and if there is anything else I can do for you just let me know :)

have a lovely day & with this email I send you a bit of sunshine from Dublin :)
 Gerlinde

On Wed, Nov 6, 2013 at 8:50 PM, Lisa Lammerschmidt <lisa@kreators.net> wrote:
 Hi Gerlinde,

I hope you
 I am so un
 I would like
 I have bee
 I would lik
 The design
 many chall
 project.
 I would be
 the project
 Very kind r
 Lisa

Re: Survey
 Suzanne Power

Sent: Tuesday 12 November 2013 11:03
 To: Elisabeth Lammerschmidt
 Subject: Survey_Lenition_Please_fill_out_for_Suzanne_Power.pdf (2.5 MB) [Preview](#)

Good Morning Lisa!
 I did the survey (attached) , very interesting. You've put a lot of thought into it.
 Best if luck with it ;)

I have also passed it onto Kieran's brother, he's an Irish speaker / translator just to get his thoughts (if that's ok with you?)

Hope it's all coming together for you.
 Catch you soon,
 Take Care,
 Suzanne x

Form
 gemma ronayne

Sent: Sunday 10 November 2013 16:30
 To: lisa@kreators.net
 Subject: Survey_Lenition_Please_fill_out_for_Gemma_Ronayne_filled out.pdf.zip (2.4 MB) [Preview](#)

Hi Lis

Please find attached my form. It's pretty amazing that you are trying to learn Gaelige! I was never good at speaking it but I suppose it's because we never really needed to have it and it was kind of 'forced on us' so not a good way to learn a language!

My Favorite is concept 1, variation with a simple letter (discriptor) underneath. I think it works better underneath the letters as opposed to above the letters. I also think introducing dots and dashes etc. might over-complicate it.

I LOVE your typeface! Did you really design this?! Amazing, it's simple, clean and legible. I like your k, it makes it really distinctive!

1 MB) [Preview](#)

[Show Reply](#)
[Delete from server](#)

is a Irish translator & academic, I thought he would find it back helps & you are getting through it.

----- Forwarded Message
From: Ronan Murphy <Ronan@cityprint.ie>
Date: Tue, 5 Nov 2013 13:54:46 +0000
To: Lisa Lammerschmidt <lisa@kunnerlandfemey.com>
Subject: Re: My MA Survey - Thanks so much guys!!!!

I did like your concepts, I liked the introduced of the linked letters - very intuitive.

Hi Suzanne,
 Hope all is well at Hazel Towers.
 Sorry for the delay in getting back to you with this. The survey is attached.

I would add, and I apologise if your friend has already anticipated these points.

the lenition being described is that of Munster Irish; the same words are pronounced differently in other
 Munster would be was in Connought / Ulster.

de to show pronunciation as opposed to conventional spelling should be completely accurate and
 tics, eg the guttural aspect of dhá, which would not correctly be pronounced gaw, etc. The International
 standardised pronunciation but obviously the average language-learner is not usually familiar with this. Maybe
 might be an idea? If possible only fluent or native or what are called 'educated native' speakers should be

Hope this is of help.
 Might see you next weekend, perhaps?
 All the best in the meantime and tell Hazel I said hello.
 Lisa

Participants	Concept 1			Concept 2			Concept 3		
	1	2	3	1	2	3	1	2	3
Alan Summers		x			x		x		
Deidre McCarthy		x			x			x	
Gemma Ronayne	x				x		x		
Gerlinde	x				x		x		
Noreen Beecher		x		x				x	
Ronan Murphy		x			x		x		
Hazel Roberts	x				x		x		
Sinhead McCarthy		x		x			x		
Elisabeth Lammerschmidt		x			x		x		
Suzanne Power		x		x			x		
Frances McDonald		x		x	x				x
Aoife Mooney	x				x		x		
Averil Goulliard		x			x		x		
David McCarthy	x			x			x		
Irish Meeting Ovens (4 People)	x	x		x	x		x		
	Overall Favourite 9 votes	Likes 16		Overall Favourite 6 votes	Likes 17		Overall Favourite 5 votes	Likes 16	

RESULTS OF THE SURVEY - FEEDBACK

Reviewing Concepts and Selecting Options for the Survey

After creating pages of possible options (*five to six different variations per concept per lenition pair - see Artifact 4*), I decided to ask within the design agency (*Elaine and Chris my employers are very supportive*), to have a review with all members of staff to gain their views on my output and have fair and straight feedback. Unacceptable variations (*readability issues or sense making*) were crossed out. We had three rounds working through the options, until I managed to narrow the selection down to three variations per concept.

Concept of Survey

The concept of the survey was simple, I wanted to know which concept was overall preferred and which variation was favoured within each concept. My first survey design was confusing. The problem was that I did not fully explain what I wanted the user to do (*see Journal, Chapter Survey*). My second survey design (*see inside of poster*) was much more coherent and easy to grasp. I followed up each participant for a feedback. I sent out 18 surveys and on the 18th of November, 15 surveys were returned.

Results of Survey

Concept 1 received 16 likes and 9 votes as overall favorite; *Concept 2* received 17 likes and got 6 votes as overall winner; *Concept 3* collected 16 likes, but only 5 people would use it to learn Irish Gaelic. It is too early to draw conclusions. However, the findings are suggesting that the concepts within the current writing system are the most favorable, very closely followed by the old dot above solution, plus descriptor.

FUTURE RESEARCH - OUTLOOK

Future Work and Research

To fully verify the research question, more research and comprehensive user tests are needed. Next steps regarding the *design practice* would be the creation of accurate ligature pairs for all exceptions incorporating all characteristics as part of the typeface. This would be followed by layout variations of learning books and options of audio recordings to capture the response of the test users. The *theory* sees the study of linguistics such as *learning Irish Gaelic as a second language*, Irish Gaelic language teaching which includes reaching out to Irish Gaelic Research groups for support.

EMAIL FEEDBACK FROM THE SURVEYS

I am glad to see that your project is moving forward - very impressive to take on such a difficult challenge! I filled out the form based on what I think makes most sense to me and looks simply - I don't like when things are too messy. So generally your first or second option would work best for me - please bear in mind I don't know much about Gaelic.

My Favorite is concept 1, variation with a simple letter (descriptor) underneath. I think it works better underneath the letters as opposed to above the letters. I also think introducing dots and dashes etc. might over-complicate it.

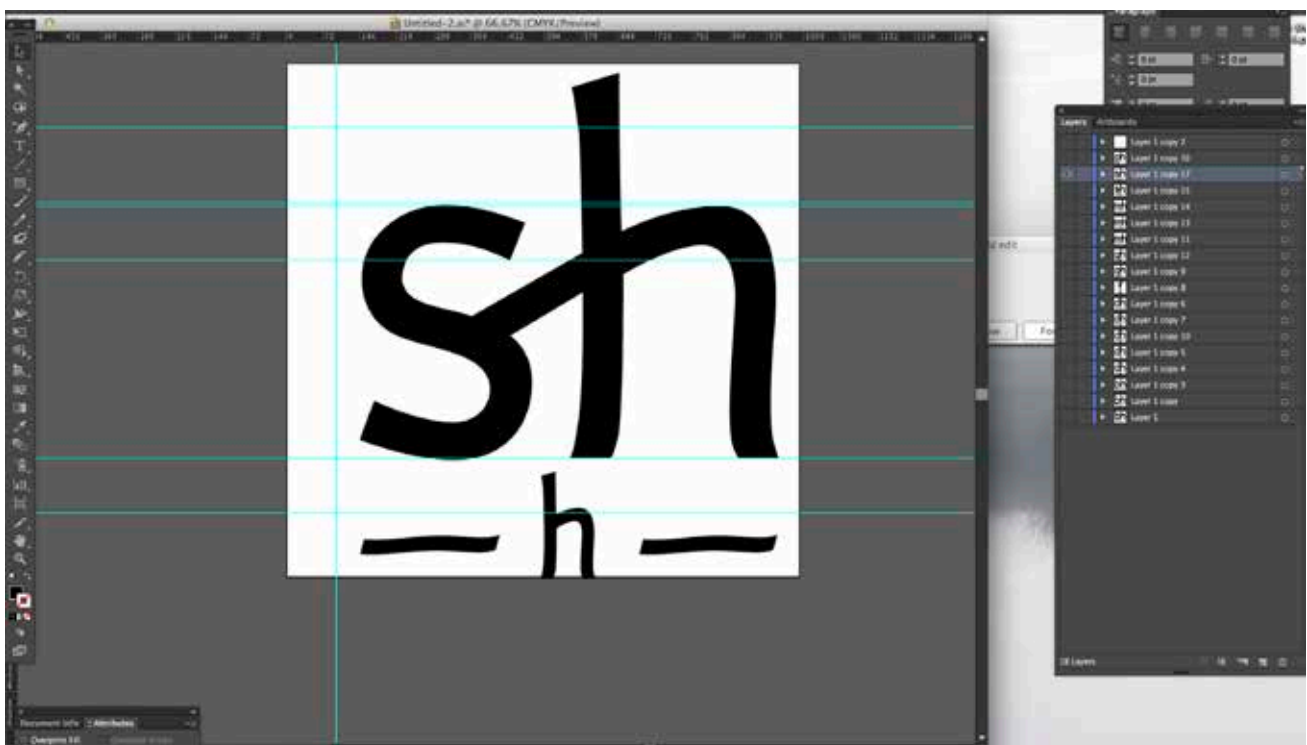
I LOVE your typeface! Did you really design this?! Amazing, it's simple, clean and legible. I like your k, it makes it really distinctive!

I did like your concepts, I liked the introduction of the linked letters - very intuitive.

I like concept 1 most, the one with the simple letter underneath. I do like as well the lenition connected to highlight that it is a pair. I would love to see how this would work in a design for an Irish Gaelic book - would this be online digital with voice embedded on click?

NOON & PAIRS

NOON WITH SAMPLE LIGATURES PROTOTYPE & FUTURE WORK



Font - Noon [/.../13_Pr													
Unicode MacOS Roman													
0000	0001	0002	0003	0004	0005	0006	0007	0008	0009	000A	000B	000C	000D
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0062	0063	0064	0065	0066	0067	0068	0069	006A	006B	006C	006D	006E	006F
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007E	007F	0080	0081	0082	0083	0084	0085	0086	0087	0088	0089	008A	008B
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0044	0045	0046	0047	0048	0049	004A	004B	004C	004D	004E	004F	
D	E	F	G	H	I	J	K	L	M	N	O	P
005F	0060	0061	0062	0063	0064	0065	0066	0067	0068	0069	006A	006B
_	`	a	b	c	d	e	f	g	h	i	j	k
007A	007B	007C	007D	007E		00C4	00C5	00C7	00C9	00D1	00D6	00DC
z	{		}	~		Ä	Å	Ç	É	Ñ	Ö	Ü
00EF	00F1	00F3	00F2	00F4	00F6	00F5	00FA	00F9	00FB	00FC	2020	0090
ï	ñ	ó	ò	ô	ö	õ	ú	ù	û	ü	†	°
221E	0081	2264	2265	00A5	0085	2202	2211	220F	03C0	222B	00AA	00BA
∞	±	≤	≥	¥	μ	∂	Σ	■	►	∫	α	ο
00C0	00C3	00D5	0152	0153	2013	2014	201C	201D	2018	2019	00F7	25CA
À	Ã	Õ	Æ	œ	-	—	“	”	‘	’	÷	◊
00CA	00C1	00CB	00C8	00CD	00CE	00CF	00CC	00D3	00D4	F8FF	00D2	00DA
Ê	Á	Ë	È	Í	Î	Ï	Ì	Ó	Ô		Ò	Ú
											00D7	F900
h	bh	dh	dh	f	gh	gh	mh	mh	ph	th	sh	x ff
	—w—	—g—	—y—	—g—	—g—	—y—	—w—	—v—	—g—	—h—	—h—	

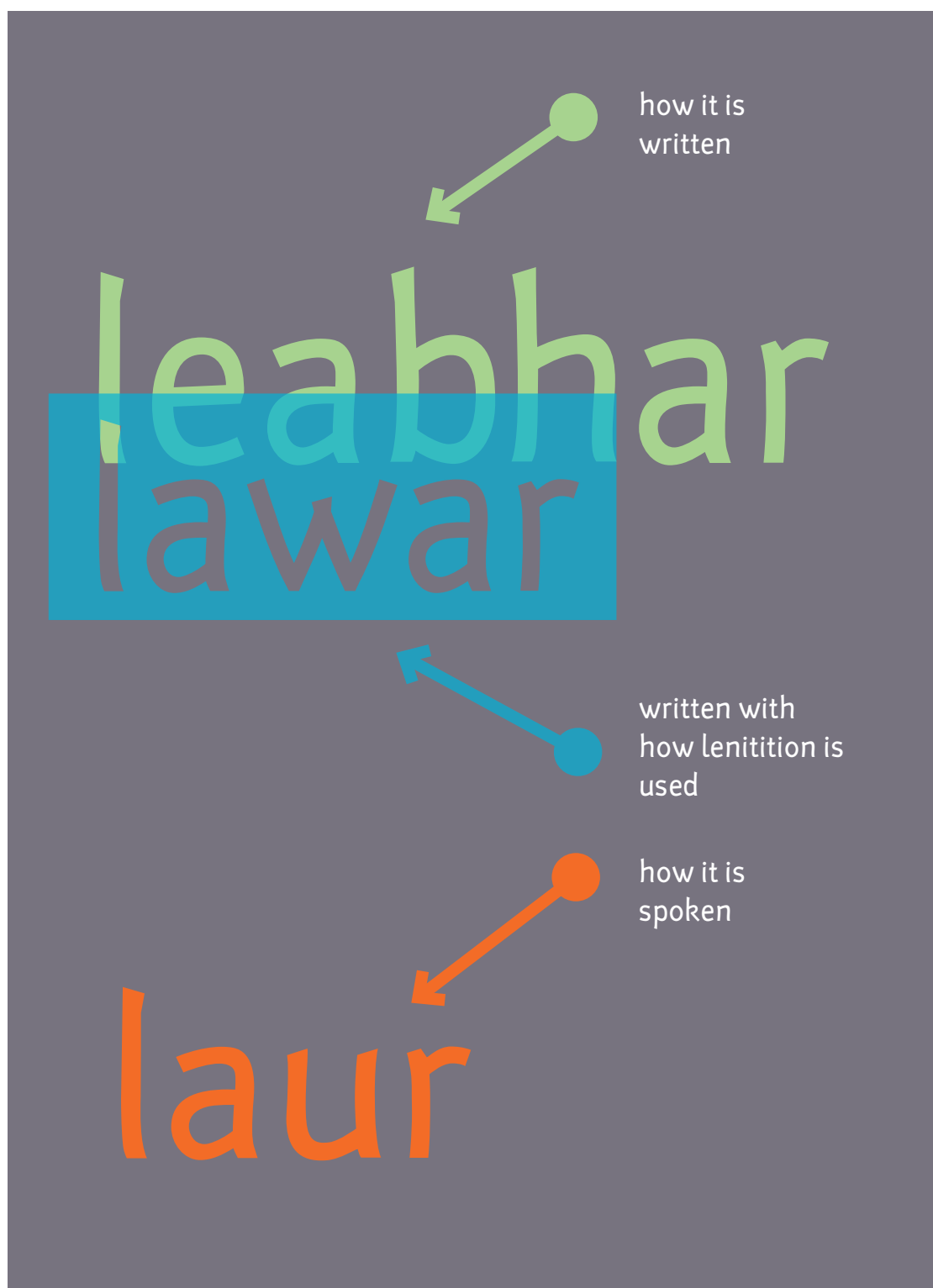
PROTOTYPE

The typeface “Noon Ligatures” in the making this is the last development captured on the 22.11.2013. The prototype will be included in the work in an unfinished state.

VISUALISATIONS

These artworks show visually the change in the Irish Gaelic language. Of course one can argue that it would be easier to use the international phonetic alphabet. But here I respond with common sense, do everyday people know the international phonetic alphabet. The answer is no. If the Irish Gaelic language wants to be sexy to learn, than it has to be accessible and understandable for people of all walks of live.

Make it easy. There is nothing wrong with that. For people from people, use a language that everybody understands and provide audio with it that is slowly spoken so that people can practice and get it right. The language is complicated enough there is no need to make it more difficult to access on top of that.



how it is
written

a sheolad
a heola

written with
how lenition is
used

how it is
spoken

a hola

FUTURE RESEARCH

These artworks show visually the change in the Irish Gaelic language. Of course one can argue that it would be easier to use the international phonetic alphabet. But here I respond with common sense, do everyday people know the international phonetic alphabet. The answer is no. If the Irish Gaelic language wants to be sexy to learn, than it has to be accessible and understandable for people of all walks of life. Make it easy. There is nothing wrong with that. For people from people, use a language that everybody understands provide audio with it that is slowly spoken so that people can practice and get it right. The language is complicated enough there is no need to make it more difficult to access on top of that. However, I am very cautious, as this line of thinking has not been applied yet (*there are no such typefaces or Irish Gaelic learning books out there at the moment*) and I have nothing to compare my research with to verify the successful application of the final research question.

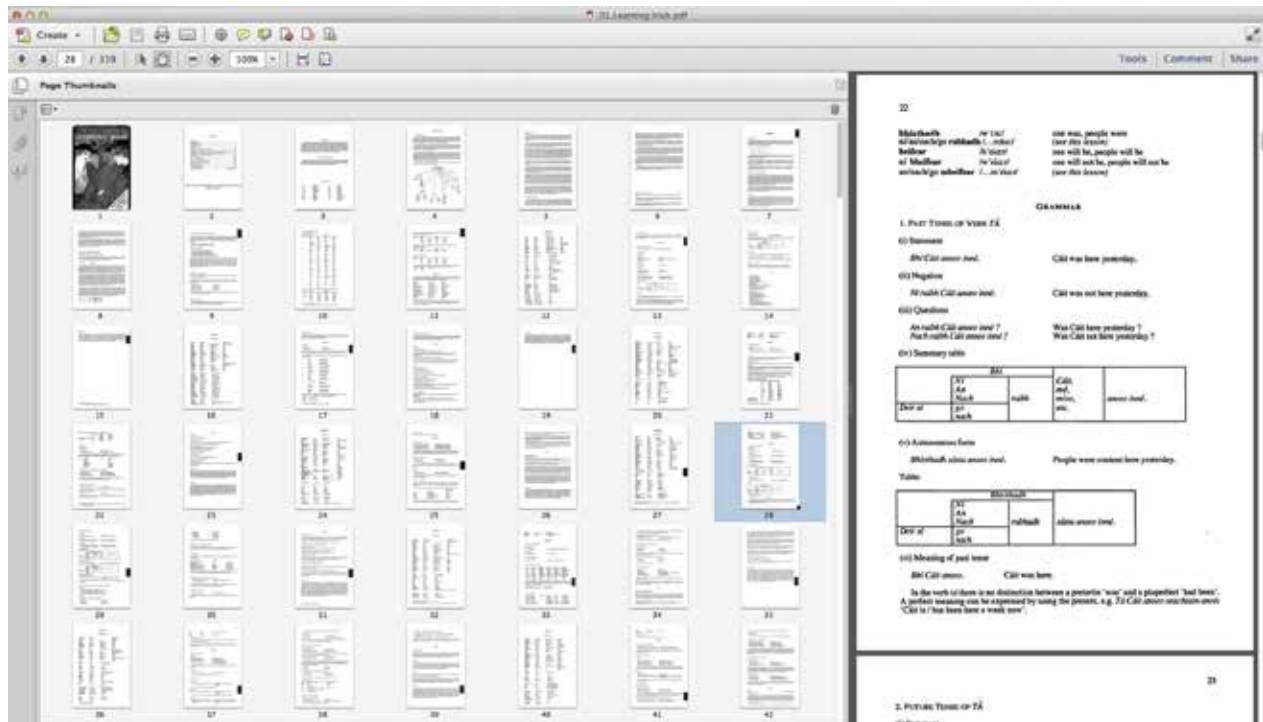
More research is necessary and the next steps would be the application of all grammatical indifferences (*such as eclipsed consonants, diphthongs, double consonants and exceptions*) to a chosen concept and the development of a full working typeface prototype that can be tested by various test user groups. Beyond that, this research would also include the type setting and the layout of sections of an Irish Gaelic learning book, accompanied by audio files, which would be used in user tests to finally determine, whether there is a real benefit using such a system. The target groups I set out to capture are adults in their 20s to 40s who like to learn the language.

But there are particular cases, individuals such as David, Deidre, Suzanne, Orla, Melissa, Eoin or Gemma. These people mark a generation of Irish nationals that went through the Irish education system in

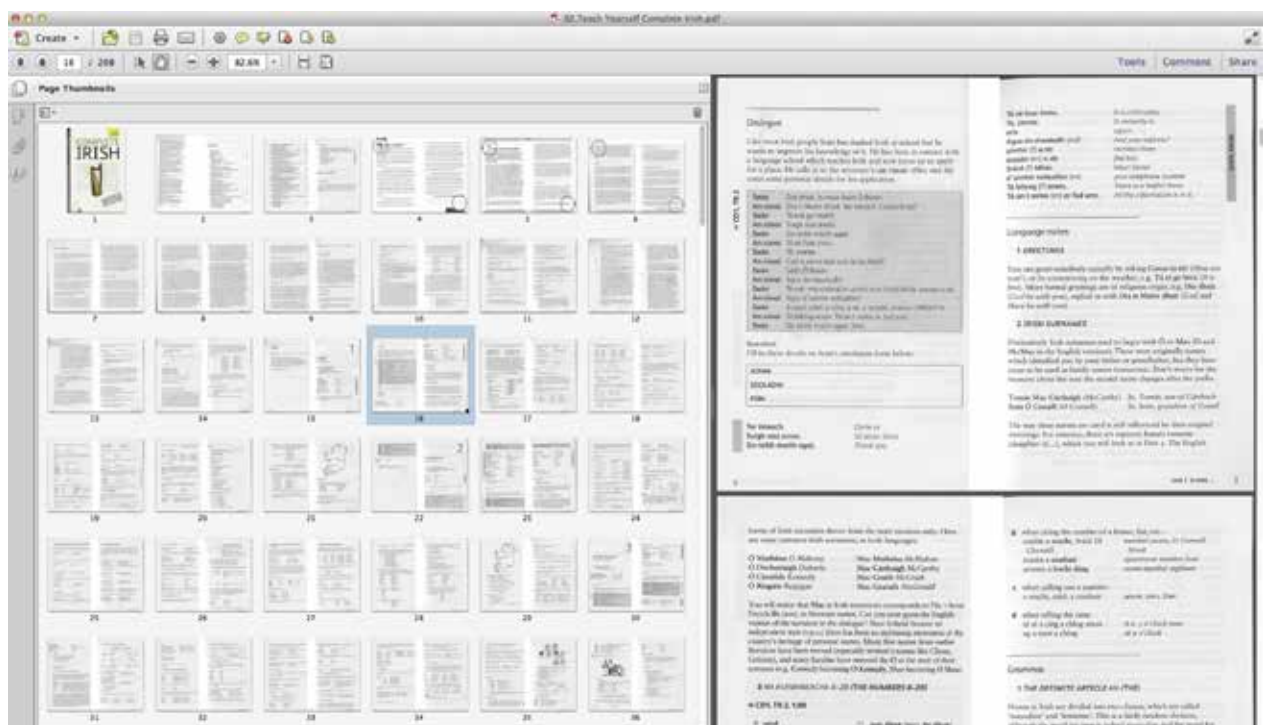
a particular time frame and lived through the experience that Irish Gaelic '*was kind of forced upon them*'. This educational approach was not very successful as none of my friends speak the language with the exception of some phrases or a few sentences such as '*may I have the permission to go to the toilet*'. By interviewing this particular target group all of them answered that this '*forced*' educational approach '*was not a so not a good way to learn a language*'. However all test persons would like to speak Irish Gaelic to a certain degree and are open to an approach (*ideally self learning course*) that is fun and easy to understand in order to learn the language.

I conclude that more research and comprehensive user tests are needed in order to fully verify the final research question. Next steps regarding the *design practice* would be the creation of accurate ligature pairs for all exceptions incorporating all characteristics as part of the typeface. This would be followed by layout variations of learning books and options of audio recordings to capture the response of the test users. The *theory* sees the study of linguistics such as *learning Irish Gaelic as a second language*, Irish Gaelic language teaching which includes reaching out to Irish Gaelic Research groups for support. Moreover, this system, if successful, could also be applied (*with a few changes*) to Scottish Gaelic, as the language is related and very similar to Irish Gaelic.

EXAMPLES OF IRISH GAELIC LEARNING MATERIAL:

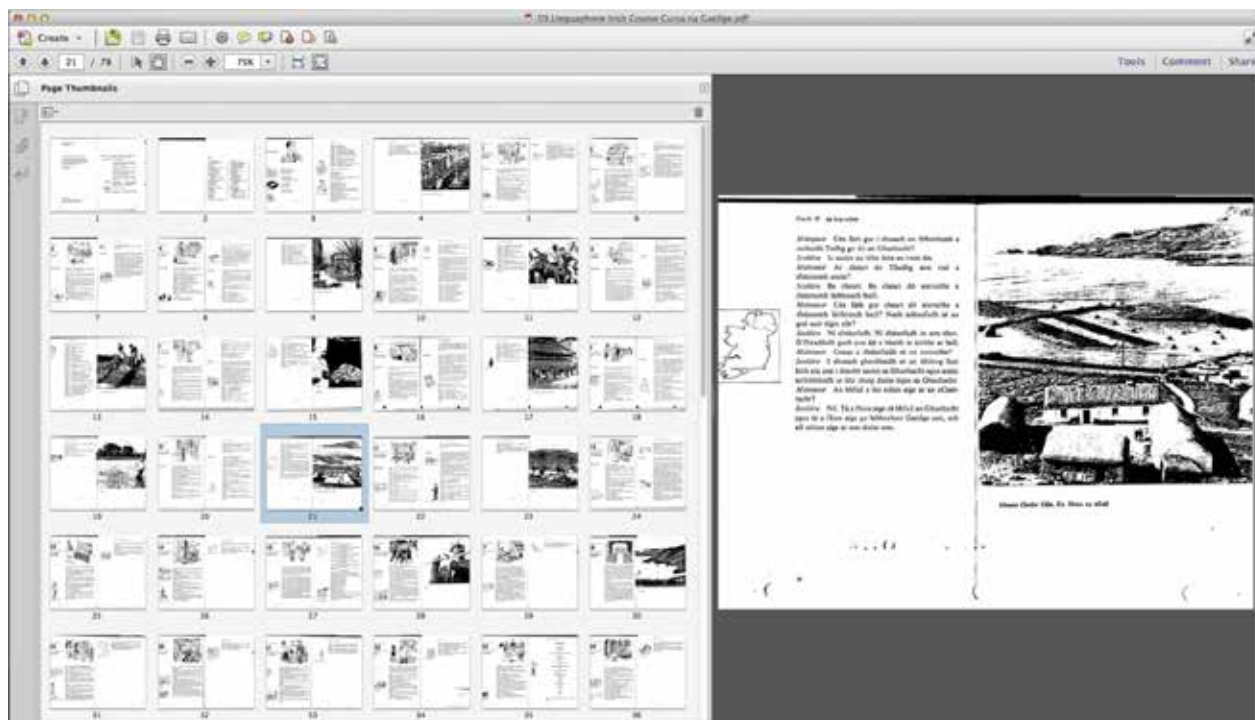


Learning Irish by Mícheál Ó Siadhail

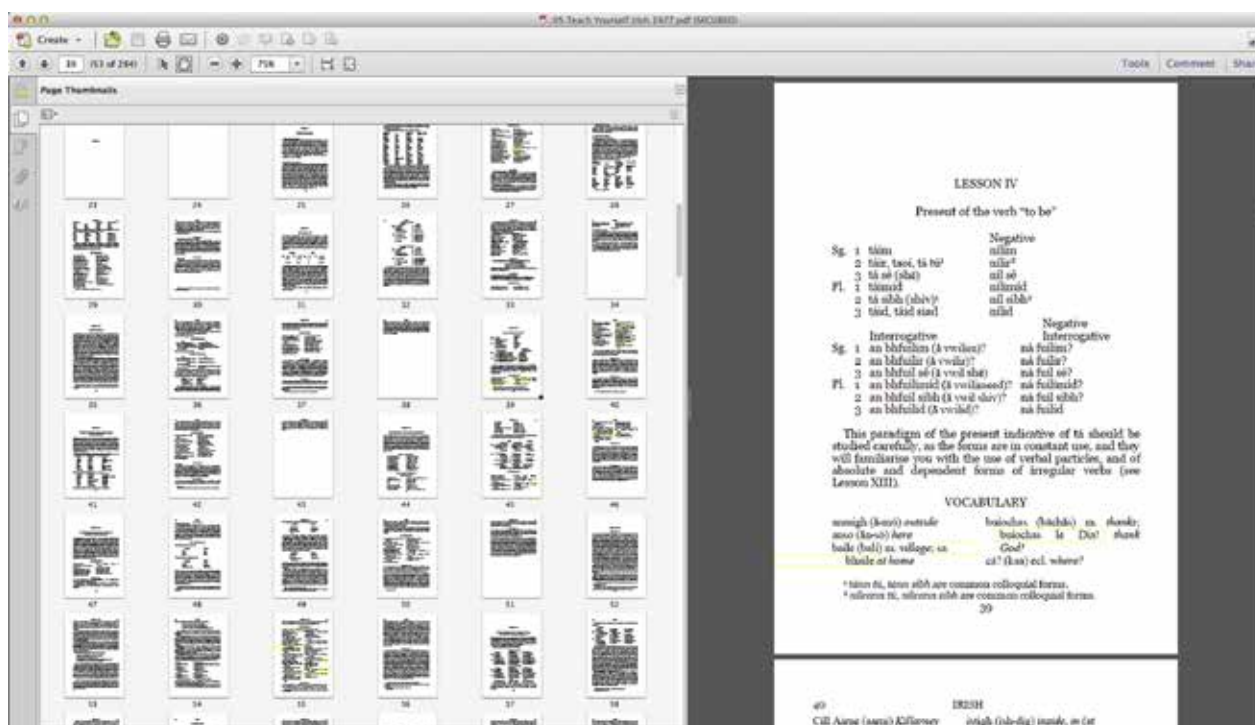


Complete Irish by Diarmuid Ó Sé

EXAMPLES OF IRISH GAELIC LEARNING MATERIAL:



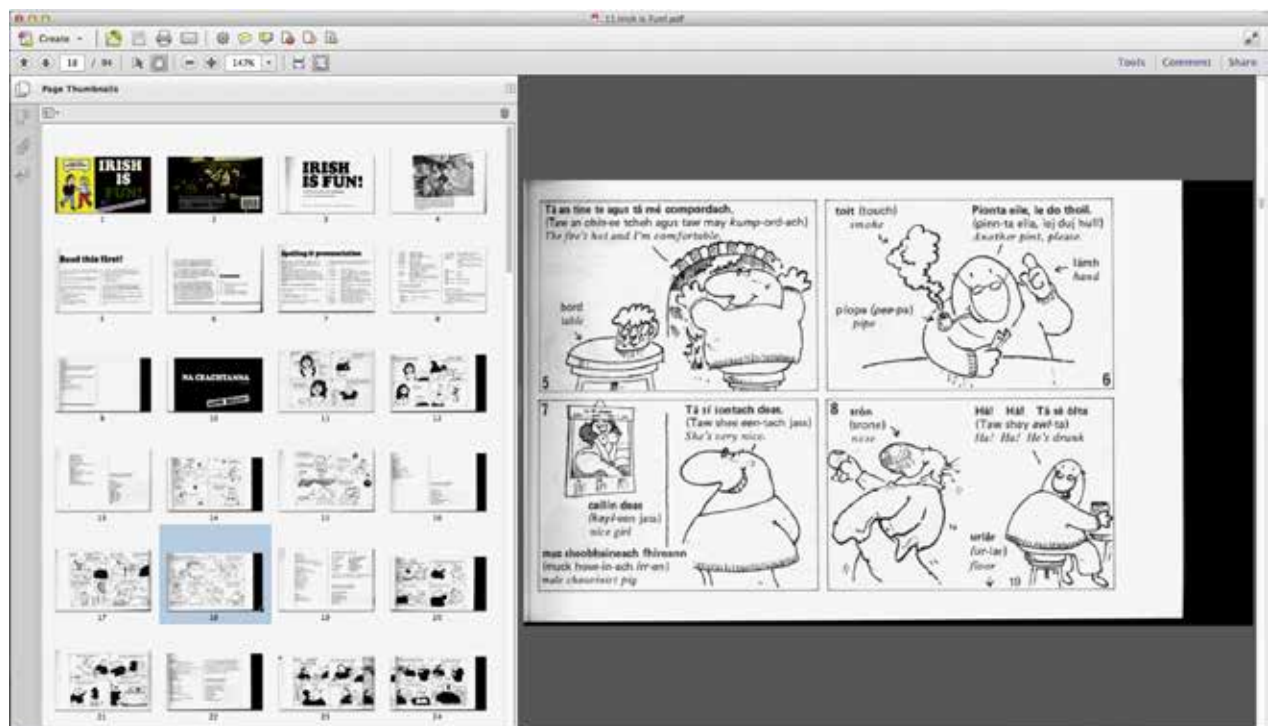
Linguaphone Irish Course Cursa na Gaeilge



Irish by Myles Dillon and Donncha Ó Cróinín

[illegible]

118 | Journal | E.Lammerschmidt 1124708 | November 2013



Irish is Fun! by Aodán Mac Póilín

First Ideas for a digital Irish Gaelic language learning e-book that includes video and audio files

Irish Gaelic with translation underneath it, in this case the new term 'go breá' is translated as the beginning of the sentence was already discussed in an earlier lesson.

Immediate accessible audio file that reads out sentence with its translation.

Interesting images that explain content.



Ceacht 2
Chapter 2

audio

Tá an aimsir go breá.

go breá fine



audio

Tá an aimsir go deas.

go breá nice



audio

Tá an aimsir go maith.

go maith good



audio

Tá an aimsir go hiontach.

go hiontach wonderful


tá -> is	an lá -> the day
níl -> is not	an oíche -> the night



audio

Tá an aimsir go dona.

go dona
bad



audio

Tá an aimsir go hálainn.

go beautiful
beautiful

audio

Níl an lá go maith.
The day isn't good.

audio

Níl an lá go maith.
The day isn't good.

audio

Níl an lá go maith.
The day isn't good.

audio

Níl an lá go maith.
The day isn't good.

audio

Níl an lá go maith.
The day isn't good.

Grammar
Text

tá -> is
níl -> is not

an lá -> the day
an oíche -> the night

an lá -> the day
an oíche -> the night

an lá -> the day
an oíche -> the night

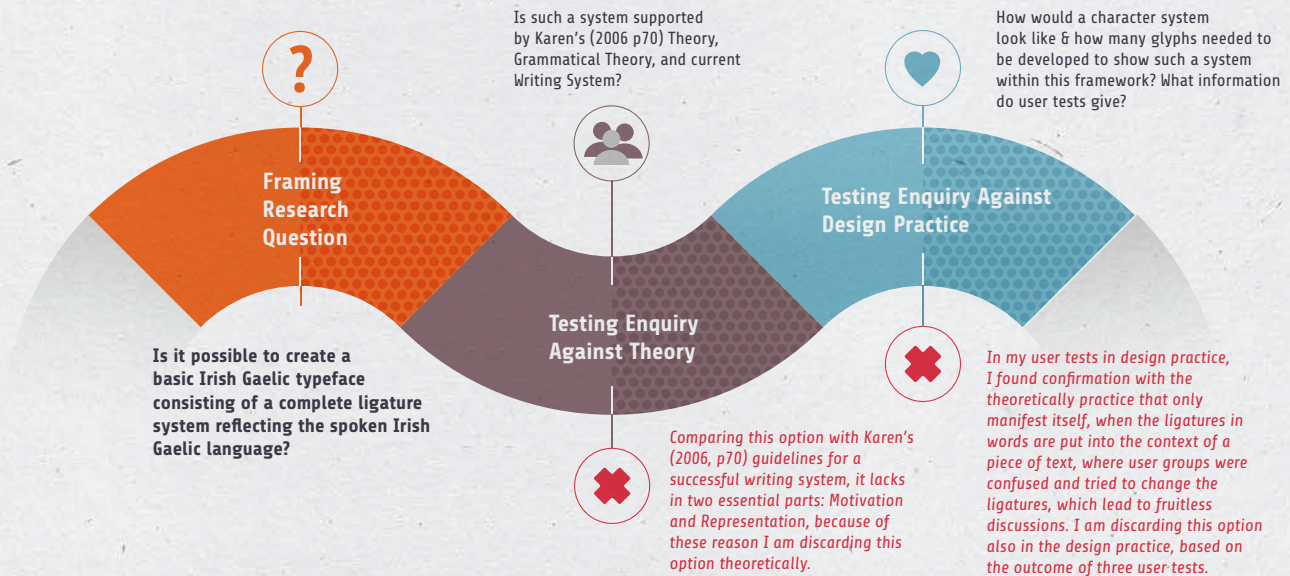
Sentences without images have always a translation running underneath and audio by click at the front

Grammar section explains grammar that is used in lessons on a page

Vocabulary of each section is clearly assigned to a certain position on the page

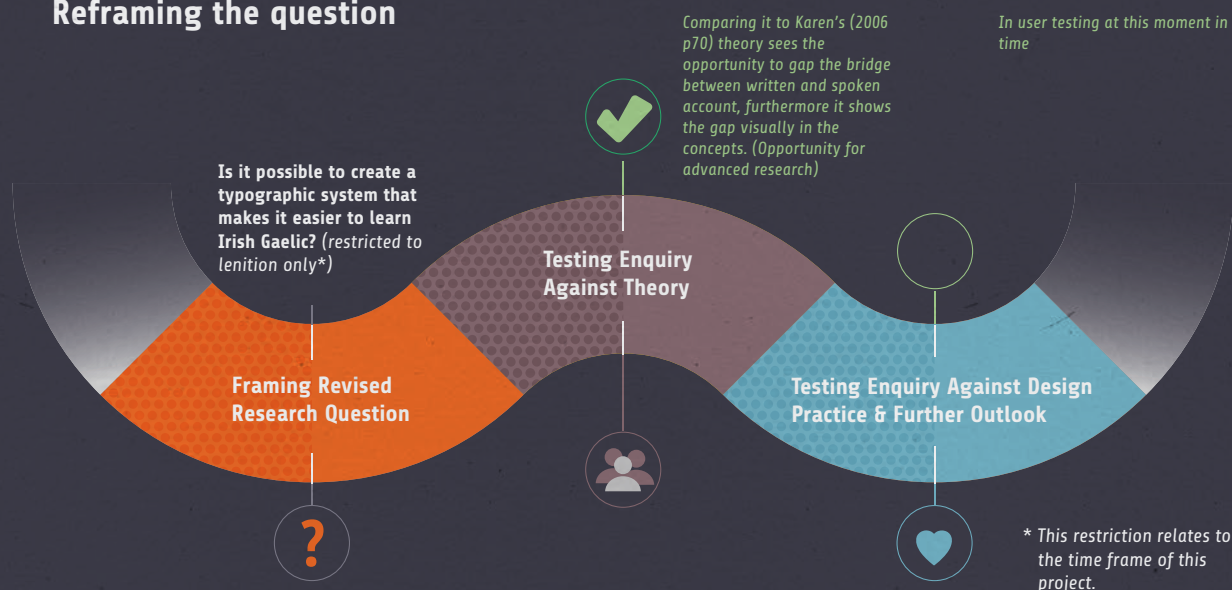
APPROACH OF THIS RESEARCH - AN OVERVIEW:

Overview of how this research was conducted



MIRRORED ANGLE:

Reframing the question



Design Practice - Research through Artefacts

- ★ **1. Traditional approach**
Concept 1 for learning Irish Gaelic with spoken sound by using descriptor at the bottom of lenition that shows the spoken equivalent sound in English.
- ★ **2. Dot above, below or diacritic ogonek**
Concept 2 for learning Irish Gaelic with spoken sound, see the use of graphemes to mark lenition. It uses the former dot and the ogonek to indicate lenition.
- ★ **3. Radical approach - write as you read**
Concept 3 for learning Irish Gaelic with spoken sound. The spoken sound is written and in this 'upside down' solution the lenition is visualised above. This is concept has the emphasis on spoken sound not written equivalent, but it shows how it is written in its above descriptor or has a grapheme that indicates lenition.
- ★ **Development of Typeface that is unique to the concepts, that enquires personality and identity of the expression of type and the connection to how we perceive the context of the written word.**

Artefacts:
Developed and then put on hold typeface Avow and prototype (not finished) typeface Noon.

