In search of Old Irish

★★★ The Irish language changed considerably during the medieval period, with morphological and phonological shifts marking the transition between Old Irish and Middle Irish. The ChronHib project aims to build a deeper picture of the Irish language in the 7th to 10th centuries, opening up new insights into medieval culture and language, as **Professor David Stifter** explains.

The early Middle Ages was a productive period in Ireland's literary history, yet in many cases the authorship of texts in the Irish language from the time and the circumstances of composition is not clear. This leaves gaps in our understanding of the nation's cultural history and how the Irish language evolved over time, something which Professor David Stifter and his colleagues in the ChronHib project are working to address. "Our main interest is in very fine changes from the older stages of the language to the more recent stages of the language," he outlines. The project is looking at the period between roughly the 7th and 10th centuries, which covers the transition from Old Irish to what is known as Middle Irish. "The usual definition of Old Irish is that it dates from the 8th-9th century. The 10th century is thought of as the start of the Middle Irish era," explains Professor Stifter.

There is a vast amount of literature from this period across various different genres, including poetry, sagas and narratives, yet in most cases it exists in the form of much later manuscripts copied by scholars in subsequent centuries who adapted the language to the later period. This is a challenge in terms of the project's goal of building a clearer picture of the language in the 8th and 9th centuries. "There are many changes in the grammatical forms of words and the way the text is organised over time," says Professor Stifter. There is nevertheless some undisturbed Old Irish material that survives in contemporaneous codices from the 8th and 9th centuries, mainly in the form of glosses, a kind of marginal or inter-linear note. "There are three key manuscripts from the period and many smaller ones. The content of these manuscripts were mainly written in Latin, but the glosses were very often written in Irish, for instance to explain difficult Latin passages," says Professor Stifter.

The researchers in the ChronHib project are developing computational tools and statistical methods to analyse these glosses and gain new insights into how the language changed over the period. While there is an abundance of information available on modern languages like English, material on Old Irish is much scarcer, so Professor Stifter says innovative methods are required. "We need to develop methods to ensure our analysis is as comprehensive as possible. We want to draw as much information as possible out of the limited data available," he explains. This approach could hold wider relevance to the linguistics field, beyond the specific case of Old Irish. "This could be a model for the analysis of other languages – how to analyse and present data on ancient or medieval languages that are no longer spoken in that form," outlines Professor Stifter.

Our main interest is in **very fine changes** from the **older stage of the language** to the more recent stage of the language. We want to get a picture of **what the Irish language looked like** in the 8th or 9th century.

Morphological and phonological changes

Morphological and phonological changes are among the most important topics for Professor Stifter and his colleagues in order to assess how the Irish language evolved over the period. "Phonology means what a word sounds like – which is reflected through the orthography. Of course we don't have tape recordings from that period, so we have to look at the spelling to assess how it would sound," he outlines. The morphology of words – their form – is another major topic of interest in the project, with researchers looking at Old Irish verbs. "The verb system of Old Irish is extremely complicated and encodes a wide range of semantic and formal categories and dimensions within a single word. There are examples in which it takes over ten words to express something in English that can be expressed by a single word in Old Irish," continues Professor Stifter.
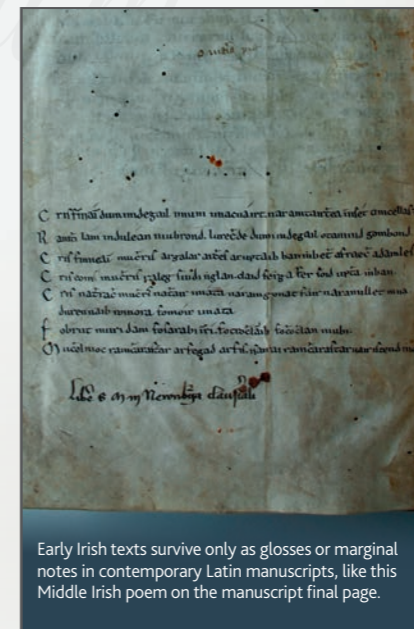
A lot of attention in the project is focused on morphological analysis of these verbs, with researchers creating minutely annotated databases to build a chronological framework of linguistic changes. The wider aim here is to build a reliable resource and reference point for linguistic dating, potentially allowing researchers to identify the period that a specific text dates from through the language used, yet Professor Stifter says there are some significant hurdles to overcome in this respect. "A lot of the information included in the Old Irish form needs to be analysed, characterised, annotated, and re-worded on this database," he explains. The challenge here is in representing this information as clearly as possible. "These morphological changes in the language over time are of great interest to us," says Professor Stifter.

Historical writing from the period is also invaluable for gaining insight into linguistic changes over time. There are annual records from the early medieval period – annals – which briefly record the events that occurred in that specific year. "Over many centuries, a lot of text accumulated," points out Professor Stifter. In principle, these records reflect changes in the language over time. "The annals are clearly associated with a year, so you have an idea of what the language may have looked like at that time," says Professor Stifter. "If we compare the form in two years and see that there is a difference, then we can take that as an indication that a change is taking place. The dates are fairly close in the case of annals, as they are really associated with a specific year, which is not the case with the glosses."

Early Irish texts survive only as glosses or marginal notes in contemporary Latin manuscripts, like this Middle Irish poem on the manuscript final page.

Indo-European language family

This research opens up new insights into Medieval culture and language, while Professor Stifter says Old Irish is also an important source for our understanding of linguistics more generally. Analysis of Old Irish will add to a more complete picture of the Indo-European language family. "The Indo-European family is one of the largest language families. It covers most of the European languages, as well as many languages in the Middle East," explains Professor Stifter. Ultimately, all of these languages are related and descend from a common ancestor, about 6,000 years ago, and Professor Stifter says analysis of Old Irish will help researchers gain a fuller picture. "Old Irish forms part of Celtic, one of the 12 main known branches of the Indo-European language family. The Celtic branch is rather small, but it still has very important contributions to make to our understanding of Indo-European languages in general," he stresses.

The project will make an important contribution in these terms, using technology to improve linguistic dating and strengthen links between the past and the present. In the remaining time of the project's five year funding term, Professor Stifter and his colleagues intend to apply Bayesian statistical methods to the collected and annotated linguistic material and to improve the database, which he says will be an invaluable resource for linguists looking to date historical texts. "There's an enormous amount of literature from the 8th and 9th centuries. If we can understand it more accurately, it will greatly add to our understanding of the period," he says.
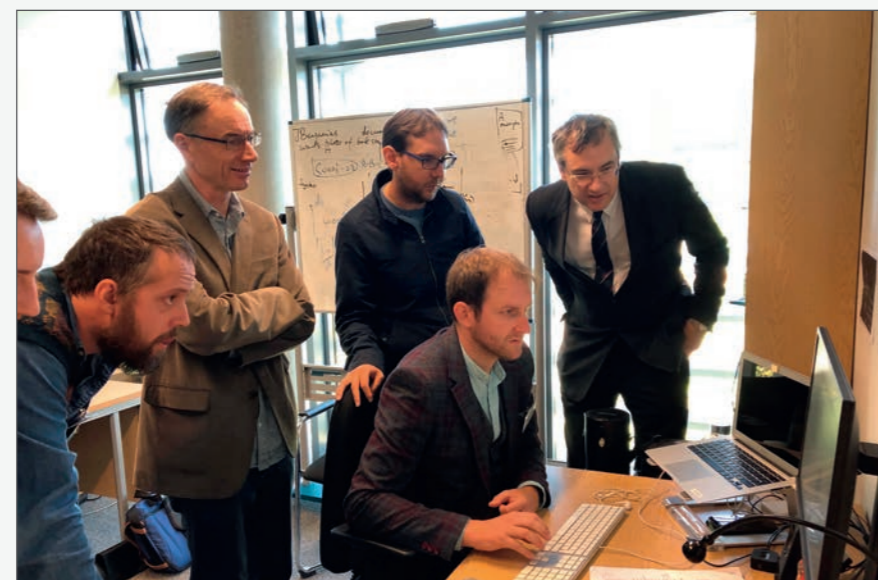
The ChronHib team demonstrating their databases at the 10th Celtic Linguistics Conference 2018.

In Chronologicon Hibernicum, the Old Irish language is transferred from vellum manuscripts into a digital environment.

Professor David Stifter

David Stifter is Professor of Old Irish at Maynooth University. He was previously a lecturer in Indo-European linguistics at the University of Vienna, where he played a major role in establishing and managing the Celtic studies programme. He is founder and editor of the interdisciplinary Celtic-studies journal Keltische Forschungen, and a founding member of the Societas Celtologica Europaea, the European Association of Celtic Studies.