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研究課題名（和文）Dynamics of Change in Early English: Managing, Interpreting and Explaining Linguistic Data Using GIS

研究課題名（英文）Dynamics of Change in Early English: Managing, Interpreting and Explaining Linguistic Data Using GIS

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研究成果の概要（和文）：本研究では、GISを使用して多くのデータストをマップに統合する詳細な音韻および形態統語学研究につながりました。このアプローチにより、英語の歴史における音韻的および形態統語学的発達のより豊かな分析が可能になりました。これには、歯摩擦音、無声軟口蓋破裂音、および人称代名詞の発達が含まれます。本研究の一環として、イングランドとスコットランドでおよそ2000の地理参照された英国の地名の検索可能な大規模なデータベースが作成され、これらの名前が初期の英語でどのように変化したかを理解しました。

研究成果の学術的意義や社会的意義

The results showed that large amounts of linguistic and non-linguistic data can be effectively managed using maps. Because of the growing amount of data available, this approach is fast becoming a necessity in historical linguistics.

研究成果の概要（英文）：The project led to detailed phonological and morphosyntactic studies that integrated many strands of data onto maps using GIS. The approach allowed for richer analyses of phonological and morphosyntactic developments in the history of English, including the development of dental fricatives, palatal velars, and personal pronouns. Also as part of the project, a large searchable dataset of over 2000 georeferenced Brittonic place-names in England and Scotland was created in order to understand how these names underwent change in Early English.

研究分野：English Historical Linguistics, Dialectology

キーワード：English GIS Corpus Linguistics Dialectology

1. Research background

In recent decades, English historical dialectology has progressed significantly in the field of linguistic geography. Major surveys of both Medieval and Modern English have resulted in the release of several linguistic atlases and surveys (e.g. LAEME, LALME, SED; see section 3 below). In addition, there are numerous searchable databases as well as paper-based collections that have put an enormous amount of data at the hands of researchers. However, until quite recently, there has been no easy way to combine these resources. Now, with the availability of powerful GIS applications, researchers are in a position to integrate various strands of data and to manipulate that information in multiple layers on maps. This project had the aim of integrating various sources of data from corpora, dialect surveys, place-name gazetteers, etc. in order to gain a more detailed outlook on specific developments in the history of English.

2. Research goals

The aim of the research was to show how GIS could be used to integrate disparate linguistic and, where applicable, non-linguistic data sources to extend our current knowledge of linguistic change in Early English. The project's aims were to:

1. Investigate a representative yet manageable set of core changes in the history of English
2. Integrate multiple sources of data using GIS in order to identify patterns in the data in finer detail than hitherto
3. Assess possible explanations for specific changes, especially ideas of contact with British Celtic, Latin, Norse and French

3. Research methods

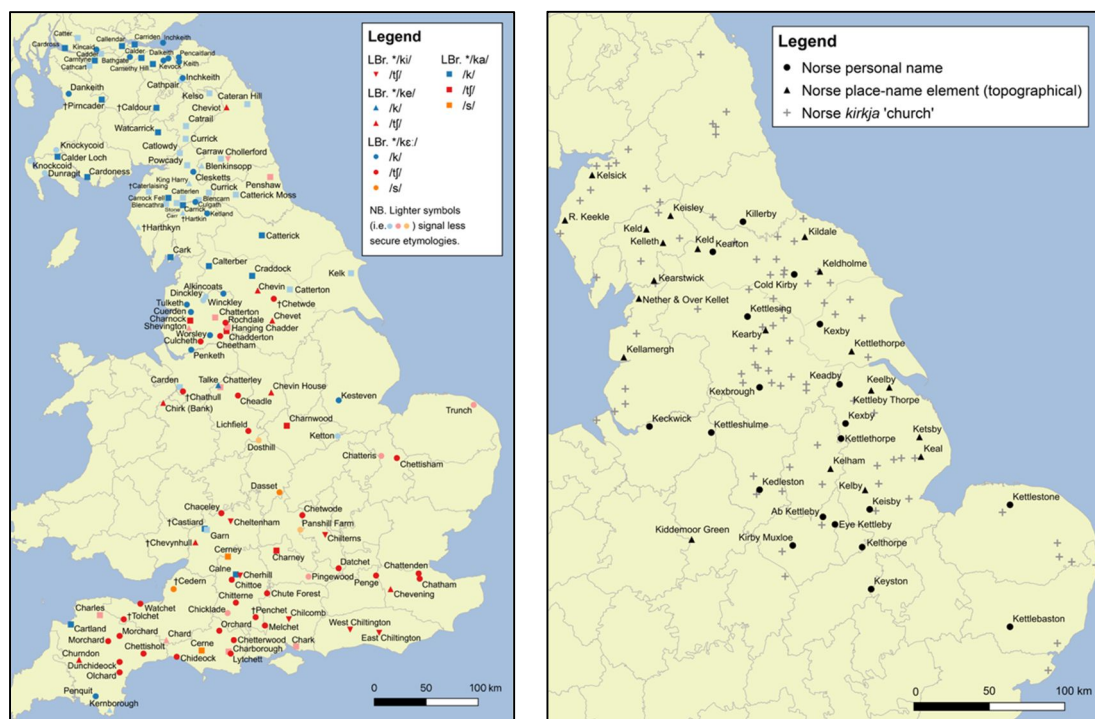
A range of phonological developments of consonants and pronominal syntax were subject to detailed analyses. In order to chart specific linguistic developments, a wide range of electronic data resources were utilized, and often combined, in maps, including the following:

- Corpus of Old English (University of Toronto)
- HALOGEN geospatial search facility (University of Leicester)
- LangScape (King's College London)
- Linguistic Atlas of Early Middle English (LAEME) and the Linguistic Atlas

of Late Middle English (LALME) (University of Edinburgh)

- Electronic English Dialect Dictionary (University of Innsbruck).
- Electronic Survey of English Place-Names (University of Nottingham)

On top of this, data that only exists in print form were also converted to digital format, especially dialectal data (such as from the Survey of English Dialects = SED) and place-name data. Much effort went into collecting place-names from gazetteers and other publications, as in Map 1 and 2 below, which stem from my study of the voiceless velar /k/ in English.



Map 1 (left). Pre-English place-names dataset combining work from R. Coates and A. James, filtered for specific names that had Brittonic /k/ before a front vowel, the consonant appears as either /k/, /tʃ/ or /s/, depending on dialect.

Map 2 (right). Map 4. Norse place-names with /k/ before a front vowel (data from *Key to English Place-names* [see HALOGEN], plus manual additions from Ekwall 1960, Watts 2004).

4. Research results

One study contrasted the development of dental fricatives (/θ, ð/) in English and Frisian, i.e. English's closest relative (see Laker 2017). It made use of a wide range of English data from the LAEME, LAOS, W. Maguire's *Atlas of A. J. Ellis's The Existing Phonology of English Dialects*, as well as Frisian datasets and maps

obtained from the Frisian Academy, the Mertens Institute, and Forschungszentrum Deutscher Sprachatlas. The data were combined on several maps. The development of the dental fricatives in Old and Early Middle English was shown to be similar to that Old Frisian up to about the 14th century, thereafter the two languages develop very differently. Apart from changes in specific phonotactic environments, English dialects generally retained the dental fricative unlike Frisian which ultimately lost them in all contexts. One proposed reason why is that English came into contact with speakers of languages that also had dental fricatives (Brittonic, Norse, Old French), whereas precisely the opposite was the case with Frisian.

Another thorough study investigated the development of palatalized /k/ in English, i.e. whether it developed to /tʃ/ or not in the history of English (Laker forthc. 2021). Extensive use was made of place-name and dialectal data. As well as using existing resources, data only available in printed media, such as that found in the Survey of English dialects county volumes and place-names' data, were digitized. In particular, R. Coates's Gazetteer of Celtic Names in England (except Cornwall) and A. James's survey of British Celtic names in northern England and Scotland (*British Language in the Old North* = BLITON) were made into a searchable dataset, which led to over 2000 names being mapped and assessed according to various criteria using GIS (for further details on this resource, see Laker forthc. 2020). Once this and other data were collected, it was possible to provide an exacting survey of the development of /k/ to /tʃ/ in English (the first study of its type since O. Gevenich's dissertation of 1919). Prominent differences in northern England, eastern England and southern Scotland were explained as emerging from a combination of factors: Old English dialectal variation as well as Brittonic and, especially, Norse influences.

Further studies dealt with the developments of pronouns and their syntax (Laker 2016) and with the development of Old English vowels (Laker 2019). Several maps were also created for a planned book on the phonological change and early contact. Overall, the project has demonstrated that it is possible to work with a wide range sources and that these can be effectively arranged and combined using GIS to bring clearer resolution on an array of diachronic changes in language.

Selected references

Laker, S. Forthc. 2021. Palatalization and Assibilation of /k/ in English and Scottish place-names. *NOWELE* 74.1.

Laker, S. Forthc. 2020. Brittonic place-names in England and Scotland: Data and distribution. In Otsu, T. (ed.).

Laker, S. 2019. Celtic influence on Old English vowels: A review of the phonological and phonetic evidence. *English Language and Linguistics* 23(3), 591–620.

Laker, S. 2017. Early changes of dental fricatives: English and Frisian compared. In Stephen Laker & Michiel de Vaan (eds.), *Frisian through the Ages: Festschrift for Rolf H. Bremmer Jr*, 243–267.

Laker, S. 2016. On the development of anaphoric pronouns in Early and Modern English dialects. ICEHL 19, University of Duisburg-Essen (Essen Campus), Germany, 22–26 Aug. 2016 (24.8.2016).

5. 主な発表論文等

〔雑誌論文〕 計3件（うち査読付論文 2件／うち国際共著 2件／うちオープンアクセス 0件）

1. 著者名 LAKER, Stephen	4. 巻 23.3
2. 論文標題 Celtic influence on Old English vowels: A review of the phonological and phonetic evidence	5. 発行年 2019年
3. 雑誌名 English Language and Linguistics	6. 最初と最後の頁 591-620
掲載論文のDOI（デジタルオブジェクト識別子） 10.1017/S1360674317000545	査読の有無 有
オープンアクセス オープンアクセスではない、又はオープンアクセスが困難	国際共著 該当する

1. 著者名 Laker, Stephen	4. 巻 77.1-2
2. 論文標題 Early Changes of Dental Fricatives: English and Frisian Compared	5. 発行年 2017年
3. 雑誌名 Amsterdamer Betraege zur aelteren Germanistik	6. 最初と最後の頁 243-267
掲載論文のDOI（デジタルオブジェクト識別子） 10.1163	査読の有無 有
オープンアクセス オープンアクセスではない、又はオープンアクセスが困難	国際共著 該当する

1. 著者名 Laker, Stephen	4. 巻 74.1
2. 論文標題 Palatalizat on and assibilation of /k/ in English and Scottish place-names	5. 発行年 2021年
3. 雑誌名 NOWELE	6. 最初と最後の頁 e1-e30
掲載論文のDOI（デジタルオブジェクト識別子） https://di.org/10.1075/nowele.74.1	査読の有無 無
オープンアクセス オープンアクセスではない、又はオープンアクセスが困難	国際共著 -

〔学会発表〕 計12件（うち招待講演 1件／うち国際学会 5件）

1. 発表者名 Laker, Stephen	
2. 発表標題 Early English phonology as revealed through place-names	
3. 学会等名 ICEHL20（国際学会）	
4. 発表年 2018年	

1 . 発表者名 Laker, Stephen
2 . 発表標題 Pre-English place-names: Distribution and phonology
3 . 学会等名 JSHL Annual Conference 8 (国際学会)
4 . 発表年 2018年

1 . 発表者名 LAKER, Stephen
2 . 発表標題 British place-names and Early English phonology
3 . 学会等名 An International Symposium on the Early History of the North-Sea Germanic Languages: Dutch, English, Frisian and Low German. University of Southern Denmark, Odense (招待講演)
4 . 発表年 2018年

1 . 発表者名 Stephen Laker
2 . 発表標題 3SG pronouns in traditional dialects of southwest England
3 . 学会等名 Language Variation and Change Research Forum
4 . 発表年 2016年

1 . 発表者名 Stephen Laker
2 . 発表標題 Origin and context of English dialectal en ‘ him ’
3 . 学会等名 Angus McIntosh Centre Symposium (国際学会)
4 . 発表年 2016年

1 . 発表者名 Stephen Laker
2 . 発表標題 On the development of anaphoric pronouns in Early and Modern English dialects
3 . 学会等名 ICEHL 19 (国際学会)
4 . 発表年 2016年

1 . 発表者名 Stephen Laker
2 . 発表標題 Dental fricatives in Early and Modern English
3 . 学会等名 JSHL Annual Conference 6
4 . 発表年 2016年

1 . 発表者名 Laker, Stephen
2 . 発表標題 Historical phonology and language contact
3 . 学会等名 2nd Language Variation and Change Research Forum
4 . 発表年 2015年

1 . 発表者名 Laker, Stephen
2 . 発表標題 Celtic influence on Old English vowels?
3 . 学会等名 SELIM 27 (国際学会)
4 . 発表年 2015年

1．発表者名 Laker, Stephen
2．発表標題 Celtic influence on Old English vowels: A review of the data and arguments
3．学会等名 5th JSHL Annual Conference
4．発表年 2015年

1．発表者名 Laker, Stephen
2．発表標題 Pre-English place-names: Distribution and phonology
3．学会等名 JSHL Annual Conference 8
4．発表年 2018年～2019年

1．発表者名 Laker, Stephen
2．発表標題 New urban and rural British English varieties in the Northeast
3．学会等名 English in Contact Symposium
4．発表年 2018年～2019年

〔図書〕 計0件

〔産業財産権〕

〔その他〕

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6．研究組織

	氏名 (ローマ字氏名) (研究者番号)	所属研究機関・部局・職 (機関番号)	備考
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