

A Brief History of Phonetics at the University of Oxford

Compiled¹ by John Coleman

The Middle Ages

The medieval syllabus of grammar, logic, rhetoric etc. is physically evident in the names above the doorways in the Old Schools Quadrangle, Bodleian Library, Broad Street. Together with the *Schola linguarum hebraicae et graecae*, the *Schola logicae* etc., there you will find the *Schola grammaticae et historiae*.

Robert Grosseteste

Robert Grosseteste (ca. 1168–1253), Bishop of Lincoln from 1235 to 1253, was one of the most prominent and remarkable figures in thirteenth-century English intellectual life. He was a man of many talents: commentator and translator of Aristotle and Greek patristic thinkers, philosopher, theologian, and student of nature. He developed a highly original and imaginative account of the generation and fundamental nature of the physical world in terms of the action of light, and composed a number of short works regarding optics and other natural phenomena, including sound. He made a powerful impression on his contemporaries and subsequent thinkers at Oxford, and has been hailed as an inspiration to scientific developments in fourteenth-century Oxford.

According to Daniel Callus, from about 1200 Grosseteste probably taught the arts at Oxford, only to leave Oxford in 1209 to study theology in France when the Oxford schools closed after two clerics were hanged by Oxford's mayor and officers. The resolution of the resulting town-and-gown dispute was delayed by the papal interdict of England but finally achieved in 1214, when the papal legate sent to England to negotiate a settlement between the King and Pope visited Oxford. The legate's resolution, known as the Legatine Award, placed the Oxford masters under the jurisdiction of the Bishop of Lincoln, who was to appoint as his representative a chancellor of the university. Remarks by Hugh Sutton, Grosseteste's successor as Bishop of Lincoln, indicate that Grosseteste had at one time occupied the position of chancellor at Oxford but had been allowed only to use the title “master of the schools” and not “chancellor.” According to Callus, Grosseteste probably returned from France in 1214 to become, in function if not title, Oxford's first chancellor².

Grosseteste's contribution to phonetics is *De Generatione Sonorum*, a treatise on acoustics and phonetics (Baur 1912; The Electronic Grosseteste³). Although Grosseteste is thought to have been familiar with the work of Avicenna (Ibn Sina) — but perhaps only the *Canon of Medicine* — his knowledge of articulation strikes me as greatly inferior to Ibn Sina's *Risālah: asbāb ḥuduwθ ʔal-ḥuruwf* 'Treatise on the causes of the occurrence of letters' (Sara 2009). For example, Grosseteste fancies that the letters of the (roman) alphabet have a shape representing the motions of the articulators when we are speaking. Even so, Grosseteste views consonant articulations as a disruption to or modification of vowel production, foreshadowing the current conceptions of co-production and perturbation of vowels:

¹ I'm very grateful to David Cram, Michael Ashby and Ros Temple for help with various parts of this short guide. Of course, none of its many deficiencies are their fault. I've been collecting bits and pieces of information about phonetics in Oxford for many years, and on the occasion of the BAAP colloquium in Oxford I hope these notes – thrown together rather carelessly – will be of some interest and may lay some foundations for a more complete study in future. Some paragraphs are openly plagiarized from other works, as will be obvious.

² Stanford Encyclopedia of Philosophy <http://plato.stanford.edu/entries/grosseteste/>

³ <http://www.grosseteste.com/cgi-bin/textdisplay.cgi?text=de-generatione-sonorum.xml>

Manifestum est igitur, quod in motu, quo formatur sonus consonantis est motus et inclinatio ad formandum sonum vocalis materialis et ita in sono consonantis est sonus vocalis materialiter;

“It is clear, therefore, that in the movement by which the sound of a consonant is formed, there is the inclination to form the vowel sound considerably, and so in the sound of a consonant there is the sound of a vowel substantially” (Tr. A. C. Sparavigna)

Al-Sakkāki's “Kitāb Miftāḥ al-‘ulūm” (1317), which contains probably the first known vocal tract diagram (see Heselwood and Hassan 2011), post-dates Grosseteste.

Alexander Gill's, *Logonomia Anglica*, (1619), the first grammar of English, divides Grammar into four parts: 1) Philology, which concerns the use of letters (including pronunciation), 2) Etymology, 3) Syntax, 4) Prosody. In part 1, Gill employs a phonetic alphabet of some 40 letters. According to the Testimony of the President and Fellows of Corpus Christi College, Gill came to the college in 1581 (more probably, New Style 1582). On 21 September, 1583, at the age of 16, he was admitted as a scholar and is listed in the admission register of the college. He was entered as a student of Oxford University in 1585; the entry in the matriculation register is “Julii 2° Alexander Gill Lincoln. pleb. fil. an. 18”. He wrote *Logonomia Anglica* later, when he was High Master of St. Paul's School, London.

In **the Enlightenment**, several notable Oxford scientists dealt with phonetics, including John Wallis, John Wilkins, and William Holder. This period is well document by historians of linguistics far more competent than me, such as Abercrombie (1948), Subbiondo (1992) etc.

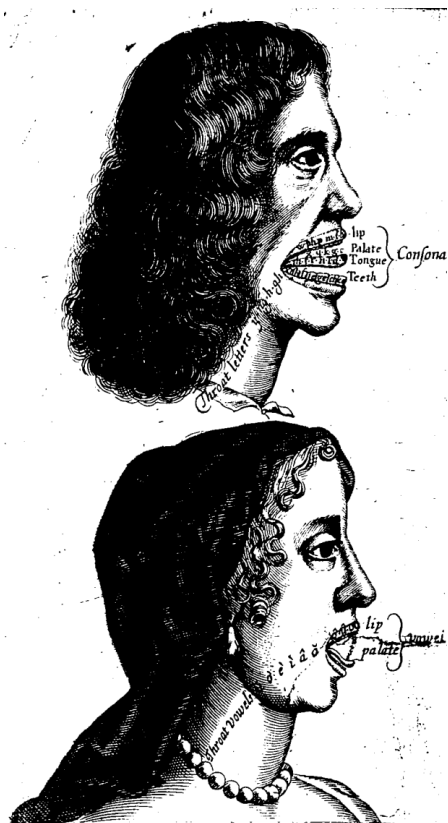
John Wallis's, *Tractata de Loquela* (1652) includes an early precursor of the IPA chart.

Literarum omnium Synopsis.

		Apertura		
		majori.	media	minori.
Vocales	Gutturales	á } o } aperta.	e foemini- num.	û } ò } obscu- rum.
	Palatinae	á exile.	é masculi- num.	ee } i } exile.
	Labiales.	o rotundum.	oo } ú } pin- gue.	ú exile.

Consonae	Labiales	Muta	P	F F	L R
		Semi-muta	B	V W	
		Semi-vocalis	M	mugitus	
	Palatinae	Muta	T	S Tb	
		Semi-muta	D	Z Db	
		Semi-vocalis	N	gemitus	
	Gutturales	Muta	C	Cb H	
		Semi-muta	G	Gb T	
		Semi-vocalis	N̄	gemitus.	

Subtili-
eres. | Pingu-
ores. }
Aspiratae



Owen Price, *The Vocal Organ, or A new Art of teaching the English Orthographie* (1665)

According to Wikipedia, Price was born in Montgomeryshire, Wales and studied at Jesus College, Oxford for four years (Jesus College being founded by Welsh men in particular). After returning to Wales to teach, he resumed his education at Oxford and obtained his Bachelor of Arts and Master of Arts degrees by 1656. He became master of Magdalen College School, Oxford in 1657, and was complaining in the following year about the delay in appointing him as master of Westminster School, saying that the delay was dissuading parents from sending their children to him for lessons. He was not appointed to Westminster School, and lost his position at Magdalen College School on the Restoration because of his non-conformist beliefs. He then taught in Devon and Oxfordshire, maintaining his good reputation as a teacher. He died in Oxford, near Magdalen College, on 25 November 1671. Another Jesus College Welsh man, Edward Lhuyd (1660–1709), is known for pioneering scholarship in Celtic philology. The earliest use of the phrase “receiv’d pronunciation” is from Lhuyd’s (1724) English translation of the preface to his *Glossography* (1707).

John Wilkins's, *Essay Towards a Real Character* (1668) and William Holder's, *Elements of Speech* (1669) are well-known and thoroughly discussed elsewhere. John Wilkins (1614 –1672) was the son of Walter Wilkins, an Oxford goldsmith, “a very ingenious man with a very mechanicall head. He was much for trying of experiments, and his head ran much upon the perpetuall motion.” John entered New Inn Hall on 4th May 1627, then to Magdalen Hall, gaining a BA in 1631 and MA in 1634. From April 1648 to 3rd September 1659 he was Warden (i.e. Head) of Wadham College. The *Essay Towards a Real Character* cites (p. 357) Sir Thomas Smith (Cambridge Mathematician and orthoepist), William Bullokar, Gill and “Doctor Wallis”, “the last of whom, amongst all that I have seen published, seems to me, with greatest Accurateness and subtlety to have considered the Philosophy of Articulate sounds.” He cites private papers of Dr. William Holder. His love of taxonomy led him to classify sounds according to Active and Passive articulator, stopped “breathless” vs. continuant, nasal vs. oral, interrupted (“intercepted”) vs. “free” (vowels and semivowels), median vs. lateral, trill vs. fricative, sonorous (voiced) vs. mute (voiceless). His great interest in phonetics is in the attempt at a universal phonetic alphabet, saying (p. 383) “I dare not be over-preremptory in asserting that these are all the *Articulate Sounds*, which either are, or can be in Nature ... But I think that these are all the principal Heads of them, and that as much may be done by these (if not more) as by any other Alphabet now known.”

Abraham Tucker (1705–1744) was the author of a 1773 (?) work, *Vocal Sounds*, under the pen-name “Edward Search”. He was at Merton College in 1721.

In 1850, **F. Max Müller** (1823–1900) was appointed deputy Taylorian Professor of Modern European Languages. In the following year, at the suggestion of Thomas Gaisford, he was made an honorary M.A. and a member of the college of Christ Church, Oxford. On succeeding to the full professorship in 1854 he received the full degree of M.A., by Decree. In 1858 he was elected to a life fellowship at All Souls' College. In 1868, vacating the Taylorian chair, Müller became Oxford's first Professor of Comparative Philology, founded on his behalf. He held this chair until his death,

although he retired from its active duties in 1875. Müller's health began deteriorating in 1898 and he died at his home in Oxford on 28 October 1900. He was interred at Holywell Cemetery on 1 November 1900.⁴ His main work on linguistics (including some phonetics) is *Lectures on the Science of Language* (1861).

Henry Sweet (1845–1912) is Oxford's most famous phonetician of the modern era. He was Reader in Phonetics from June 1901 until his death in April 1912.

Dorothea Beale⁵ (1831–1906) was Principal of the Cheltenham Ladies' College and founder of St Hilda's College, Oxford, and known by Sweet. She was not only a friend and supporter of Laura Soames, but also a member of the IPA herself. Miss Beale joined the IPA in December 1888, in only the third year of its existence. She was proposed by Laura Soames, who had herself joined only a few months previously. St Hilda's may thus be the only college founded by a member of the IPA. (There's a slight proviso, though. While her membership extends from 1888 to 1902, she seems to have let it lapse in the years 1892-1896, so technically she wasn't a paid-up member in 1893 when St Hilda's was founded).

Following Sweet's death, **Daniel Jones** of University College, London, was engaged by Oxford's Taylorian Institute in 1913 to lecture in the subject. In April 1914, Jones advertised in the *University Gazette* that he would offer lectures and practical work in "Phonetics for those proceeding to India". Jones' UCL colleague **H. O. Coleman** was engaged as Additional Taylorian Lecturer in Phonetics for Trinity (summer) Term 1914 and again in the Michaelmas (autumn) Term of that year. Though Jones gave up his appointment at the end of that term, by 1920 Phonetics was instituted as a compulsory subject for some of the Indian and English students preparing for entry into the Indian Civil Service at Oxford's Indian Institute. Their final exam had four elements: Indian History, Indian Law, Riding, and Vernacular Languages, which for English students required linguistic training in the elements of Hindi-Urdu and other Indian languages, and for Indian students included training in English grammar.

From 1922 to 1927, phonetics lectures in the Indian Institute were given by a **Mr Marshall Montgomery** (1880–1930). Montgomery won a Classical Scholarship to study at Lincoln College, Oxford. He was a member of the International Society of Experimental Phonetics, and joined the IPA in 1907. From 1908–1914 he was Lektor in English at the University of Giessen. During this period he studied at Berlin, Paris and other continental universities, devoting himself particularly to phonetics. He was Lecturer and then Reader in German at the University of Oxford. In 1910 he published *Types of Standard Spoken English and its chief Local Variants*.

After five years of phonetics teaching in the Indian Institute, Montgomery was moved to complain to the ICS Delegates that attendance at his lectures was "indifferent". It was agreed that a teacher should be sought who combined a knowledge of Phonetics with a knowledge of Indian vernaculars. The Delegates consulted Daniel Jones, by now the eminent London Professor, who recommended **J. R. Firth** as lecturer. Firth, lately Professor of English in the University of the Punjab, had recently returned to London where he was appointed to a half-time position of Senior Assistant at UCL. Firth was unable to take up the engagement at Oxford immediately, and for the next two years Phonetics lectures at the Indian Institute were given by Miss **Ida Ward**, who was later an eminent Africanist, a Professor at SOAS, and whose works in phonetics are well known.

⁴ This paragraph is cribbed from Wikipedia.

⁵ I am indebted to Michael Ashby for permission to include the research on Beale and Montgomery given in these paragraphs.

In 1930, Firth began teaching at the Indian Institute, visiting Oxford once a week, giving two lectures at each visit. The fee agreed on was 6 guineas a visit, and first class train expenses. After some consultations with the students, Sir Benjamin Lindsay and the secretary to the Indian Civil Service Delegation, F. J. Lys, found that there was a feeling that the instruction they were receiving in Phonetics was of value to them in their language study, a sentiment supported by the language lecturers. Firth increased the number of visits so that more lectures could be given.

1930–7 were formative years for Firth's studies of the phonetics of Indian languages. In 1934 he published *A Short Outline of Tamil Pronunciation*; in 1935, *Phonological Features of some Indian Languages*; in 1936, *Alphabets and Phonology in India and Burma*, which includes texts in simplified phonetic transcription of Burmese, Tamil, Telugu, Marathi, Urdu and 'Modern Persian'. In 1937–8 Firth went on a research visit to India to carry out further work in phonetics, which later (1958) led to his *Phonetic Observations on Gujarati* and a 1939 *Specimen of Kashmiri*.

Upon his return to England, Firth continued his weekly lectures in Oxford, even following the outbreak of war. In May 1940, "owing to petrol restrictions and the increased amount of Phonetics teaching, Mr Firth was obliged to spend several nights in Oxford in order to complete his work". But in September, the Secretary of State for India decided to arrange for the training of the 1940–41 probationers in India. The Delegation's work in training Indian Civil Service candidates subsequently came to an end in view of the war and the changing political circumstances in India and England.

Sir Richard Paget (1869–1955), a barrister and scientist, was an undergraduate at Magdalen college in 1887, gaining a third-class degree in Chemistry in 1891. His experiments on the resonances of the vocal tract are described in *Human Speech* (1930).

Bernard Powell Macdonald (1865–1928), the author of *English Speech Today* (1927), was Lecturer in Voice Production and Elocution at Mansfield College, Oxford. He is the author (together with Sweet and Jones) of a testimonial for "Atkinson's Mouth Measurer". He was associated with Daniel Jones in the years 1909–1910, as both a fellow performer and Stage Director in Jones's first staged performances with reconstructed Shakespearean and Chaucerian pronunciation.

Joseph Wright's (1855–1930) rise from humble origins as a "donkey-boy" in a quarry at the age of six to a Heidelberg PhD on Indo-European Philology and subsequently to the Chair of Comparative Philology in Oxford is well-documented elsewhere (notably by his widow, Elizabeth Mary Wright, in 1932). In addition to his philological work on Greek, Old English, Germanic Philology, and Gothic, and his monumental *English Dialect Dictionary*, perhaps his main contribution in phonetics is the *English Dialect Grammar* (1905), the majority of which is the historical phonology of English, including a massive Index that is, in effect, a phonetic dialect dictionary, a resource that stands comparison with e.g. Upton, Parry and Widdowson (1994).

In 1912, **J. R. R. Tolkien** "came to Wright as a pupil, and ever afterwards remembered 'the vastness of Joe Wright's dining table, when I sat alone at one end learning the elements of Greek philology from glinting glasses in the further gloom'. Nor was he ever likely to forget the huge Yorkshire teas given by the Wrights on Sunday afternoons, when Joe would cut gargantuan slices from a heavyweight plum cake, and Jack the Aberdeen terrier would perform his party trick of licking his lips noisily when his master pronounced the Gothic word for fig-tree, *smakka-bagms*." (Humphrey Carpenter). Tolkien was an Anglo-Saxonist rather than a phonetician, but he merits a mention here primarily for the writing system he devised for his invented Elvish languages (*The Lord of the Rings*, Appendix E), which is an "organic alphabet" arranged on a phonetic basis, with columns for four places of articulation (dental, labial, palatal and velar or labiovelar), and rows for

manners of articulation and voicing: voiceless stops, voiced stops, voiceless and voiced fricatives, nasals, and frictionless continuants. This and his teaching notes on the historical phonology of Anglo-Saxon demonstrate a professional understanding of phonetics.

Kenya Alphabet

		Series	1.	2.	3.	4.
A:	i	Stops } voiceless	p	p̄	ɸ	ɸ̄
	ii	} voiced	ɓ	ɓ̄	ccɸ	ccɸ̄
B:	i	Spirants } Vless	b	b̄	ɸ	ɸ̄
	ii	} Voiced	bb	bb̄	ccɸ	ccɸ̄
	iii	} Vless	ɸ	ɸ̄	ɸɸ	ɸ̄ɸ̄
	iv	} Voiced	ɸɓ	ɸ̄ɓ̄	ccɸɸ	ccɸ̄ɸ̄
C:	i	Continuants (Nasals, Semivowels, Fricatives)	n	n̄	ɸ	ɸ̄
	ii		nn	nn̄	ccɸ	ccɸ̄

Linguistics and phonetics developed quite gradually in the 1960's a 1970's, thanks to the efforts of a circle of academics dedicated to the development of the subject in Oxford, including **Christopher Ball**, who arrived from SOAS in 1964, though he had been at Oxford before that, as his fellow-student **Alan Cruttenden** recalls. Like Cruttenden, **Ian Maddieson** read English here. A **Phonetics Laboratory** was founded in 1980; Anthony Bladon was appointed its first Director and brought research grants, equipment, and a research student (Ameen Al-Bamerni, the first Oxford DPhil in Phonetics proper) with him from the Phonetics Laboratory at the University College of North Wales, Bangor. Originally established as an independent department of the University, in 2008, the Laboratory was one of the units that contributed to the formation of a new Faculty of Linguistics, Philology and Phonetics, of which it is now a constituent part.

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