THE *OXFORD ENGLISH DICTIONARY* TODAY

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Oxford English Dictionary

ABSTRACT

The long link between the Philological Society and the *Oxford English Dictionary* is in little need of repetition. The following series of interlinked pieces were delivered at a meeting of the Society in June 2003 which marked the occasion of the 75th anniversary of the completion of the first edition of the dictionary.[1]

1. THE RECENT HISTORY OF THE *OXFORD ENGLISH DICTIONARY*

The story of the origin and development of the *Oxford English Dictionary* has been told many times. Readers of the Society's early *Transactions* will be familiar with the regular reports presented by the Dictionary's editors to meetings of the Society. More modern studies include Murray (1977), the biography of the first editor, researched and written by his granddaughter Elisabeth Murray, and Winchester (2003). The present-day history of the *OED* remains to be told, and perhaps that can only be done once it, too, has slipped calmly into the past.

It is, however, worth briefly recapitulating events at the Dictionary over the last twenty years. At present the Dictionary is at a turning point in its long history, marked on the one hand by the completion of Robert Burchfield's four-volume *Supplement to the Oxford English Dictionary* (*OEDS*: 1972–86) and on the other hand

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by the publication of the Second (unrevised) Edition of the Dictionary in 1989 and the accompanying plans to computerise and update the Dictionary of which the Second Edition (*OED2*) represented the first phase.

In the early 1980s, as editorial work on the *Supplement* was coming to an end, the editorial staff of what was then known as the New OED project at the Oxford University Press (along with their advisers) spent many months considering the structure of the *OED*, with a view to establishing how the enormous text could best be held on a machine-readable database. The database was (and still is) regarded as the avenue of the future for the Dictionary.

Once the technical issues had been resolved, an extensive project was set in train to 'keyboard' and then proofread the dictionary text (some years in fact before the verb 'to keyboard' found its way into the *OED*). The Oxford University Press contracted with International Computaprint Corporation of Philadelphia to bring this about, and some 150 keyboarders, working in Tampa, Florida, were engaged for 18 months to key the text and its associated tags onto computer. As soon as the first pages had been keyed, the University Press engaged 50 proofreaders to double-read the text. Further details of this operation can be found in the introduction to the Second Edition of the Dictionary (Simpson and Weiner 1989: l–lv). Eventually, in 1989, the Second Edition itself was published, in twenty handsome volumes, effectively amalgamating Murray's original dictionary with Burchfield's supplement. In 1992 a searchable CD-ROM was published, consisting of the final (joint) text.

For the editorial staff this was not the end of the project, but just the beginning. With the amalgamated text of the First Edition of the *OED* (*OED1*) and of its four-volume *Supplement* available in machine-readable form it now became possible to contemplate addressing the wholesale revision and updating of the Dictionary, a task which had not been attempted in all of the Dictionary's extensive history.

As with all major projects, the Third Edition of the *OED* (*OED3*) began with a substantial planning phase. The editorial staff and the

Dictionary's Advisory Committee[2] considered the various ways in which the task could be approached. After many internal policy documents, discussions and meetings, the initial editorial policy of the revised edition was determined, specimen entries were produced, additional staff were recruited and trained, and finally, as the 1990s drew to a close, the first revised entries were edited.

1.1. The Third Edition of the OED

Although the Second Edition was published first in book form, it was the version on CD-ROM which seemed to show the direction in which the Dictionary would go in the future. Soon this was reinforced by the emergence of the Internet as a viable medium for the dissemination of large reference works, especially those which could be updated regularly. In March 2000, the Oxford University Press successfully put the Second Edition of the *OED* on the Internet — by subscription — and at the same time started to publish the first entries of the new Third Edition in quarterly instalments online.

Editorial work on the Third Edition of the *OED* began at the letter *M*, at a point in the alphabet where the First Edition of the Dictionary had achieved an assured style, with a steady editorial policy and its research files well stocked with illustrative quotations. The first revised section published online consisted of 1000 entries, and ran from *M* to *mahurat*. Since then the rate of entry production has increased to over 2500 entries (or approximately 1.5 million words of text) per quarter, and by the start of 2004 publication had almost reached the beginning of the letter *O*.[3] It is hoped that this cycle of revision will be completed in another twenty or so years.

The scheduled completion date has perhaps become less significant as the project has continued, for the simple reason that the scope of the revision has expanded, and staff are now working on

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[2] The *OED*'s Advisory Committee: Professor Christopher Butler, Professor Anna Morpurgo Davies, Professor Jean Aitchison and Professor Eric Stanley from Oxford, Professor Randolph Quirk from London and Professor Gabriele Stein from Heidelberg.

[3] The *OED Online* may be found at http://oed.com. Access to the dictionary itself is restricted to subscribers, but a considerable amount of introductory and historical information on the site may be freely consulted by non-subscribers.

several fronts. The regular editorial progression through the alphabet is now well established. From June 2001 two new fronts were opened: firstly, a range of entirely new entries (both historical and modern) began to be published each quarter, to allow the *OED* to address in particular modern neologisms which would otherwise have had to wait their alphabetical turn; and secondly, the full range of revised and new entries were *re*published each quarter, enabling the staff to make amendments to entries on the basis of new information reaching the Dictionary's files from reading programmes, external contributors, and other sources. All of this revised and updated material is published in a growing database searchable in parallel with that containing the full text of the Second Edition of 1989.

A brief 'Preface to the Third Edition' is available at the *OED*'s web site, detailing many of the types of changes which are being applied to the Dictionary during the process of revision.[4] The following discussion addresses the history of a specific area of policy (editorial procedures involved in the selection and editing of scientific vocabulary), and ends both with some observations on the late Dr Peter Wexler, one of the *OED*'s most indefatigable 'readers' or contributors of recent years and with a detailed critique of some of the improvements made to an *OED* entry in the course of revision, based in part on material supplied by Dr Wexler.

2. SCIENCE IN THE *OED*

2.1. Policies

It has been recognised for many years that the treatment of scientific vocabulary in the *OED* is somewhat variable. The earliest assessment of how what later became the *OED* might address scientific terminology occurs in Archbishop Trench's papers delivered to the Philological Society of 1857. Amongst other things, Trench (1860: 60) asked rhetorically which scientific words should find a place in the dictionary he envisaged.

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[4] John Simpson, 'Preface to the Third Edition', at http://oed.com/about/oed3-preface/.

The answer is easy. None but those which come under the two following heads. Those, first, which have passed out of their peculiar province into more or less general use . . . Then, secondly, such technical and scientific words as, although they have not thus past [sic] into more or less general use, or at least to general understanding, are scattered up and down our literature . . . The mischievous error lies in swamping it with words which it is necessary to go to seek in treatises on special arts and sciences, and which have never travelled beyond these.

Similarly:

It must be confessed that Johnson offends often and greatly in this point. There is hardly a page in his Dictionary where some word does not occur which has no business there. What has an English Dictionary to do with grammatical terms such as 'zeugma', 'polysyndeton'; . . . with zoological [terms], 'lamellated', 'striae'; . . . with botanical, 'polypetalous', 'quadriphyllous' . . . 'dorsiferous' . . . It is a notable merit in Richardson['s dictionary], that he has thrown overboard far the greater part of this rubbish, for rubbish in this place it has a right to be called. (Trench 1860: 58–59)

Eventually, the *OED* demonstrated a wider policy of inclusiveness for scientific terms than that for which Trench argued. Each of the terms which Trench stated in this passage have no place in a dictionary of English were in fact included in the First Edition of the *OED*. When the *OED* was finally completed, the dictionary had this to say in its General Explanations about its inclusion policy for scientific and technical words:

In scientific and technical terminology, the aim has been to include *all words English in form*, except those of which an explanation would be unintelligible to any but the specialist; and such words, not English in form, as either are in general use, like *Hippopotamus*, *Geranium*, *Aluminium*, *Focus*, *Stratum*, *Bronchitis*, or belong to the more familiar language of science, as *Mammalia*, *Lepidoptera*, *Invertebrata*. (Murray et al. 1933: xxvii)

By 1972, the *Supplement to the OED* had been forced to review its science policy:

> The complexity of many scientific subjects is such . . . that it is no longer possible to define all the terms in a manner that is comprehensible to the educated layman. Some indications follow of the policy adopted in this Supplement for the treatment of scientific terms . . .

> [Discussion follows on: Subject Labels. First Uses. Illustrative Quotations. Words already in the Dictionary. Systematic Names of Plants and Animals. Nomenclature of Plants and Animals.]

> First Uses. The first use of each word and sense has been ascertained whenever possible and appears as the first example in the set of illustrative quotations. By 'first use' the compilers of historical dictionaries mean 'the first use traced in a printed source': a word or phrase may have occurred in oral use at an earlier date. If a word was first coined in some other language before being adopted into English, details of the foreign coinage (when traceable) are provided in the etymology. All such foreign coinages have been verified at source since it sometimes happens that the details provided in specialized bibliographies and reference works are inaccurate. (Burchfield 1972, vol. 1: xix)

2.2. The results

Even a cursory inspection of key scientific entries in the *OED* shows that the supporting documentation is predominantly provided by a fairly small range of technical texts, which recur again and again in related entries: Knight's *Practical Dictionary of Mechanics* (1874–7; cited over 4,300 times in *OED1*) ranks high, as do: *Dunglison's Medical Lexicon: a Dictionary of Medicinal Science* (1842 onwards), with over 800 quotations in the First Edition; Dana's *System of Mineralogy* (1837 onwards, cited over 1000 times), Watts's *Dictionary of Chemistry* (1859 onwards) cited (along with his revision of Fownes's *Manual of Elementary Chemistry*) over 1900

times, and a number of other Victorian scientific reference works. The textbooks that are cited are often 'elementary'— Henry's *Elements of Experimental Chemistry*, Roscoe's *Lessons in Elementary Chemistry*; in fact *OED1* cites quotations from the following authors, all of whom wrote books whose titles the *OED* abbreviated as 'Elem. Chem.': Henry, Roscoe, Turner, Fownes, Miller, Reid, Black, Grahame, Fyfe, Avery, Fisher, Scoffern, Kane and Remsen, along with translations of this name from the works of Chaptal, Fourcroy, Regnault and Lavoisier. This contrasts with the variety of literary material read for all periods.

Reading textbooks is sound practice for amassing lists of the key words of a subject, but without time for extensive lexical research the early editors were often unable to produce entries containing more than approximations for 'earliest usages', which are of course vital for the study and documentation of the history of English terms and are a starting point for investigating their etymology.

These basic texts were indeed supplemented, and there is no doubt that considerable runs of periodicals were read in search of scientific vocabulary in active use. The *Philosophical Transactions of the Royal Society* are widely cited in the First Edition of the *OED* (over 9000 times), as were journals such as the *Medical Journal* (1700 quotations) and the *Journal of the Chemical Society* (1400 quotations). By comparison, a 'literary' author such as Alexander Pope — whose total output was considerably less than these runs of journals — is cited nearly 6000 times by the *OED*.

But a reinvestigation of such scientific texts shows that readers often failed to record terms which would certainly have been relevant to the Dictionary. Perhaps individual readers felt that some of these words would be too recondite for the *OED*. Sometimes they concentrated on nouns, but overlooked related verbs and other derivatives. Compounds seem often to have been missed.

2.3. New approaches

The Third Edition of the *OED* is attempting to rectify this imbalance, though it is still the case that many readers are more comfortable reading non-scientific texts. One major advance was

made by the *Supplement to the OED*, when from 1968 a corps of scientific editors and specialist consultants was recruited to concentrate on this area of the vocabulary.

But the quality of the dictionary's scientific coverage still, as ever, depends to a great extent on the documentary evidence collected by the editorial staff and contributors. Nowadays the *OED* benefits from readers who 'card' historical and modern scientific texts, and, more recently, has access to several large databases of historical scientific material. The most important is probably the *Philosophical Transactions of the Royal Society*, which is now fully searchable electronically from 1665 onwards.

2.4. A reader's tale

The pages of the Philosophical Society's *Transactions* are a fitting place to pay tribute to Dr Peter Wexler, one of the most remarkable *OED* readers of modern times. Dr Wexler, mostly recently of the Department of Language and Linguistics at Essex, sadly died in 2002 after contributing to the *OED* since the days of the *Supplement*. Whatever computer resources are available to the editorial staff of the Dictionary at the touch of a button, there is really nothing more useful, especially for historical text, than a sensitive reader.

Peter Wexler will be known to many members of the Society. He received a passing mention in the recent volume of autobiographical essays published by the Society (Brown and Law 2002: 118). He was never an easy reader to have in the Dictionary's stable. He always asked questions which threatened to reveal inconsistencies in editorial policy. But his desire to extend our knowledge of the language was unremitting. In a brief memoir of his father, Stephen Wexler wrote:

> His retirement was idyllic, and perhaps the happiest time of his life. He started sending in corrections to the *Oxford English Dictionary* — principally finding earlier occurrences of words.[5]

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[5] 'Stephen Wexler's tribute to his father': owing to the length of the URL this is most easily found by searching for a string of the text via a web search engine (20 December 2003).

Peter was most prolific as a contributor to the *OED* over the last decade of his life, providing information about typographical errors, blind cross-references, infelicities of definition, but most of all supplying concrete documentary evidence in the form of historical quotations.

Many years ago he asked the Dictionary's editorial staff which areas he could most productively read, and the suggestion was made to him that he might care to investigate the terminology of early science (especially from the Early Modern period) and also published inventories. He took easily to the task, seemingly having access to whatever text he might want to read. At the time of his death he had contributed about 50,000 quotations to the Dictionary, a large proportion in areas from which many previous readers had shied away.

The list below represents some of his reading for the Dictionary, in this case those texts which he read and from which he excerpted illustrative quotations in or around November 1998 (all quotations were keyed on to his computer and e-mailed to the Dictionary for inclusion on the Dictionary's electronic database of research materials):

Moses Harris *The Aurelian*, *or natural history of English Insects; namely moths and butterflies*, *together with the plants on which they feed*, *etc*. 1766

Moses Harris *The English Lepidoptera*, *or the Aurelian's pocket companion*, *containing a catalogue of upward of four hundred moths and butterflies*, *etc*. 1775

Adrian Haworth *Lepidoptera britannica: sistens digestionem novam insectorum lepidopterorum quæ in Magna Britannia reperiuntur, lavarum pabulo, temporeque pascendi: expansione alarum: mensibusque volandi: synonymis atque locis observationibusque variis* 1803

Alexander Wilson *American ornithology; or*, *The natural history of the birds of the United States: illustrated with plates*, *engraved and colored from original drawings taken from nature* 1812

> *Journal of the British Association for the Advancement of Science* 1833 and 1884

> George Bentham *Handbook of the British flora: a description of flowering plants and ferns indigenous to, or naturalized in, the British Isles Flora* 1858

> *Transactions of the Zoological Society of London* 1876

In addition to these scientific titles, over the same period Peter also 'read':

> Thomas Washington *The nauigations, peregrinations and voyages, made into Turkie by Nicholas Nicholay, Daulphinois of Arfeuile . . . conteining sundry singularities which the author hath there seene and obserued: deuided into foure bookes, with threescore figures, naturally set forth as well of men as women, according to the diuersitie of nations . . . with diuers faire and memorable histories, happened in our time; Translated out of the French* (1585)

> William Aglionby *Painting illustrated in three Dialogues; containing some choise observations upon the art; together with the lives of the most eminent painters, from Cimabue to the time of Raphael and Michael Angelo, etc.* 1686

> Part of Byron's *Journals*, and another ten titles.

It was much the same every month, though his interests moved from subject area to subject area as he felt the need for a change. He could find useful material in any book he read (which is something he realised very early on, and is something that many potential *OED* readers do not readily understand).

To date Peter has contributed about 500 first usages to the published section of *OED3*, along with many more gap-filling and later examples. The first of the antedatings to be used in the revised section of the *OED* occurred in the very first entry published: that for the letter *M*. An *M roof* is 'a roof formed from two ordinary gable roofs with a valley between them, whose section resembles the capital letter *M*'. Until the revised edition, the first reference for *M roof* had come from the *Encyclopaedia Britannica* of 1797. Peter found a

quotation for the term in his reading of Francis Price's *British Carpenter* of 1733. *Magnesium* is an important word in chemistry. In its earliest use in English it was a name for the element manganese, recorded in the *OED* from 1808 (Sir Humphry Davy). Peter came across a reference to the term from 1781, just six years after the word was coined by Swedish chemists. His reading of the *Letters received by the East India Company from its servants in the East: transcribed from the 'Original Correspondence' series of the India Office Records* (1897) brought to light the earliest recorded use of the adjective *Malaccan*. This source had been previously read for the Dictionary, but the reader had overlooked this word, or had not considered the use relevant. The *OED* had previously recorded the earliest use of the word *maniform* 'multiform' from 1835. Peter found it in Coleridge's *Marginalia* from around 1811. *Markal* 'a unit of weight for grain used in Madras' had formerly been recorded first in 1776. Peter found it in Charles Lockyer's *Account of the trade in India* (1711). And as if to show that his interests where not solely exotic, he found *market basket* 'a large basket, typically one with a lid, used to carry provisions, etc.' from 1504 in Norman Gras's *Early English Customs System* (1918): 'pro iii. dussenis markett basketts val. xx d.'

His legacy remains in the Dictionary's card and electronic files, to be incorporated gradually into the *OED* for many years to come. There was something amiss when on 1 May 2002 no e-mails came from Peter containing his monthly contribution: they would always arrive, as regularly as clockwork, on the first day of each month. Several days later a member of the Dictionary's staff noticed an obituary in one of the national newspapers, and understood the reason. In retirement he had found the perfect job.

2.5. *A critical comparison of three entries from* OED1 *with the equivalent entries in* OED3

OED1 has a short entry for *molybdenum*, defined as 'a metallic element (symbol Mo) occurring in combination, as in molybdenite, wulfenite, etc.' A descriptive note indicates that 'when separated it is a brittle, almost infusible silver-white metal, permanent at ordinary temperatures, but rapidly oxidized by heat'. The supporting documentary evidence consists of two quotations, the first dated

1816, the second, 1873. Cassell's dictionary is cited as the only reference for two compounds, *molybdenum oxide* and *molybdenum sulphide*, which are defined as being equivalent in meaning to *molybdite* and *molybdenite*, respectively. *OED1*'s etymology regards *molybdenum* as 'modern Latin', and an alteration of the word *molybdena* (for which there is a full entry).

OEDS added in 1976 a rather more extensive entry for *molybdenum blue* ('a complex oxide or mixture of oxides of pentavalent or hexavalent molybdenum [etc.]' at a new sense b). *OED2* combines the material from *OED1* and *OEDS* to produce a not altogether satisfactory entry in which the compound *molyb-denum blue* occupies considerably more space than the basic sense for the chemical element. This is in keeping with the policy and resources of *OED2*, which sought only to amalgamate text from *OED1* and *OEDS*, rather than to re-edit it.

The situation is somewhat changed after the process of revision for *OED3*. In terms of its etymology, *molybdenum* is now classified as 'scientific Latin', and its introduction into scientific writing is credited to Rinman's *Försök till Järnets Historia* (1782), p. 636. It is still regarded as an alteration of *molybdena* (though this time unambiguously the scientific Latin form, and not its English equivalent). A parallel development in French (*molybdène*) is dated to 1782 in the relevant sense. A historical note relates that molybdenum was recognised as a constituent of molybdenite by the Swedish chemist C. W. Scheele (1742–86) in 1778 and first isolated by the Swedish chemist P. J. Hjelm (1746–1813) in 1782. The history of the term in English and French therefore mirrors closely the historical facts known about the element's discovery.

OED3 then moves on to the semantic component of the entry, in which 'simple' and 'compound' uses are separated into different branches. Branch I represents the simple, uncompounded use of *molybdenum* as 'a brittle silvery-grey chemical element, atomic number 42, which is one of the transition metals [etc.]. Symbol *Mo*.' Developments in chemical terminology since *OED1* allow for a more appropriate classificatory definition.

The definition is supported by seven illustrative examples, from the earliest recorded use up to the present era. Whereas *OED1* relied on a general *Panorama of Science and Art* (1815) by James Smith for

its first example, *OED3*'s research discovered a quotation from 1794, rather closer to the date indicated by the history of the element and by the parallel forms in scientific Latin and French. The two quotations from *OED1* are retained, showing the term entering more general scientific texts, while two additional examples are provided from the *OED*'s historical library of chemical texts, and two further examples are added from the *OED*'s card-file of illustrative quotations, bringing the documentation for the simple sense up to the present day with a general use from an Australian newspaper.

    OED3's second branch ('Compounds') brings together *molybdenum blue* with the *OED1* compounds *molybdenum oxide* and *sulphide*. Additionally, three further compounds are entered: *molybdenum dioxide*, *disulphide* and *trioxide*. No earlier examples of *molybdenum blue* had been discovered since the days of *OEDS*. However, *molybdenum oxide* and *sulphide* are antedated from the *OED*'s research files to 1870 and 1877 respectively, and *molydenum dioxide* is traced back to 1892, and the *disulphide* and the *trioxide* both to 1869. Each compound now has supplementary documentary evidence (predominantly from the *OED*'s library and research files) showing that the terms are still current.

> **molydenum** *n. OED3*, etymology, definitions, and quotations. (For earlier published versions see the Society's website, http:// ling.man.ac.uk/More/PhilSoc/AppendixOED.html)
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> [< scientific Latin *molybdenum* (S. Rinman *Försök till Järnets Historia* (1782) 636), alteration of *molybdena* MOLYBDENA *n.* after the names of other chemical elements (cf. -IUM). Cf. French *molybdène* (1782 in this sense: see MOLYBDENA *n.*). Molybdenum was recognized as a constituent of molybdenite by the Swedish chemist C. W. Scheele (1742–86) in 1778 and first isolated by the Swedish chemist P. J. Hjelm (1746–1813) in 1782.]
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> **I.** Simple uses.
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> **1.** A brittle, silvery-grey chemical element, atomic no. 42, which is one of the transition metals and occurs as an essential trace element in plants and is added to steel and other alloys to give strength and corrosion resistance. Symbol *Mo*.

1794 G. PEARSON tr. L. B. Guyton de Morveau *Table Chem. Nomencl.* (table at end), Molybdena. Molybdenum. Regulus of Molybdena, of Hielm, in 1784. **1815** J. SMITH *Panorama Sci. & Art* II. 408 The ore containing molybdenum has almost the appearance of plumbago. **1867** C. L. BLOXAM *Chem.* 393 Metallic molybdenum is obtained by reducing molybdic acid with charcoal at a white heat. **1873** H. WATTS *Fownes' Man. Elem. Chem.* (ed. 11) 512 Molybdenum occurs in small quantity as sulphide. **1910** *Encycl. Brit.* I. 708/2 Vanadium, molybdenum and titanium may be expected soon to play an important part in the constitution of steel. **1955** *Sci. News Let.* 16 Apr. 246/1 Molybdenum, a metal coming more and more into use both alloyed with steel and compounded to form pigments and lubricants. **1986** *Sunday Mail Mag.* (Brisbane) 21 Dec. 16/3 Cauliflowers are very sensitive to shortage of molybdenum.

II. Compounds.

2. molybdenum blue, a complex oxide or mixture of oxides of pentavalent or hexavalent molybdenum with a strong blue colour that is produced, usually as a colloidal solution, when an acidic solution of a molybdate is reduced, and is used in chemical analysis and occasionally as a dye; (also) the colour of this substance. **molybdenum dioxide**, a stable blue-brown oxide of molybdenum, MoO_2, which conducts electricity in the solid state. **molybdenum disulphide**, a sulphide of molybdenum, MoS_2, which occurs naturally as molybdenite and is used as a dry lubricant. **molybdenum oxide** = *molybdenum trioxide*. **molybdenum sulphide** = *molybdenum disulphide*. **molybdenum trioxide**, a stable oxide of molybdenum, MoO_3, which occurs naturally as molybdite, and is used esp. as a raw material in the preparation of other molybdenum compounds.

1901 *Jrnl. Chem. Soc.* **80** II. 163 *Molybdenum blue does not appear to contain the dioxide, MoO_2,. . .but the semipentoxide, Mo_2O_5. **1951** *Amer. Mineralogist* **36** 610 Ilsemannite is soluble in water, first producing a greenish blue solution which later deepens to a typical molybdenum blue. **1965** D. ABBOTT *Inorg. Chem.* xii. 642 Molybdenum 'blue' is an oxide formed

when an acidified molybdate solution is greatly reduced. It has variable composition, usually about 67–68 per cent Mo. **1996** *Chem. in Brit.* Sept. 20/1 The complex commonly known as molybdenum blue is a cyclic cluster of 154 molybdenum atoms with attendant ligands.

1892 H. F. MORLEY & M. M. P. MUIR *Watts' Dict. Chem.* III. 431/2 *Molybdenum dioxide. **1911** *Encycl. Brit.* XVIII. 682/1 Molybdenum dioxide, MoO_2, is formed by heating sodium trimolybdate, $Na_2Mo_3O_{10}$, to redness in a current of hydrogen. **1983** S. P. PARKER *McGraw-Hill Encycl. Chem.* 631/2 Molybdenum dioxide and trioxide are the most common and most stable [oxides of molybdenum].

1869 H. E. ROSCOE *Lessons Elem. Chem.* (ed. 2) xxiii. 236 The chief ore of this metal is *molybdenum disulphide, a mineral in appearance resembling graphite. **1959** *Engineering* 23 Jan. 116 Lubricating oils containing chlorine, sulphur compounds, graphite, or molybdenum disulphide, are well known as assisting parts to carry loads without scuffing. **1991** *Mech. Engin.* Sept. 56/3 The lubricants consist of a binder matrix. . . and minute particles of solid lubricating and rheological materials (such as molybdenum disulfide, graphite, or fluorocarbons) in a liquid carrier.

1870 N. STORY-MASKELYNE *Catal. Coll. Minerals Brit. Mus.* 14 *Molybdenum Oxide. . . case 26. **1984** *Jrnl. Microsc.* **133** 155 Molybdenum enrichment was detected in the anodized alloy surfaces but there was no electron diffraction evidence for a crystalline molybdenum oxide. **1989** *Hydrocarbon Processing* Nov. 104/1 To produce aqueous formaldehyde (AF) or urea formaldehyde precondensate (UFC) from methanol using Haldor Topsoe A/S FK-2 iron/molybdenum-oxide catalyst.

1877 H. WATTS *Fownes's Man. Chem.* (ed. 12) I. 484 Molybdenum. . . *Trioxide* MoO_3.To obtain this oxide (commonly called Molybdic acid) native *molybdenum sulphide is roasted, at a red heat, in an open vessel. **1976** P. FRANCIS *Volcanoes* ix. 278, Around some fumaroles it is possible to find

small crystals of ore minerals such as magnetite and specularite (iron oxides), molybdenite (molybdenum sulphide), [etc.].

1869 H. E. ROSCOE *Lessons Elem. Chem.* (ed. 2) xxiii. 236 The metal is a grey substance, which oxidises on heating in air to *molybdenum trioxide, MoO_3, a yellow powder which acts as an acid, forming with bases salts called molybdates. **1983** S. P. PARKER *McGraw-Hill Encycl. Chem.* 632/1 Molybdenum trioxide reacts with strong acids. . . to form complex cations, such as molybdenyl, MoO_2^{2+}, and molybdyl, MoO^{4+}.

Nitrogenous presents slightly different problems to the lexicographer. In *OED1*'s day the entry shared space with a set of similar words (*nitrogenic*, *nitrogeniferous*, *nitrogenize*, etc.) at the foot of the entry for *nitrogen*. The term itself was not defined, and was illustrated by documentary evidence from 1836 (Smart's dictionary) and 1894.

The entry was untouched by *OEDS* and *OED2*, and so had remained entirely unedited for about a hundred years prior to *OED3*. *OED3* accords the term main-entry status, and provides a formal pronunciation (British English and American English) and a formal etymology. The definition indicates two lines of use: 'containing nitrogen in combination; of or relating to nitrogen'.

The sources of the new quotations are, however, of some interest, and demonstrate a slightly different range of material than that supporting *molybdenum*. The first use of *nitrogenous* is taken back from 1836 to 1796, in this case by a contextual illustrative quotation uncovered by Dr Wexler in Stephen Dickson's *Essay on Chemical Nomenclature*. The title of the new first use would seem to suggest that even earlier examples may be findable in due course, though in the editing process itself it is necessary to call a halt to undirected research in the interests of maintaining a reasonable rate of progress.

The *OED1* quotation from Smart's dictionary is seen as borrowed from Webster's dictionary of 1828, and two further examples are found on large online historical text corpora; the first (a reference to the *Edinburgh New Philosophical Journal* of 1844) occurs on the Cornell *Making of America* database in facsimile, whereas the 1928 example from the *Quarterly Review of Biology*

may be found on the JSTOR database.[6] One further quotation (1957) is supplied from a quotation card from one of the *OED*'s many correspondent readers, and another (1991) from the modern-day equivalent of this: a quotation supplied electronically by a reader who carded an issue of *Here's Health* magazine.

> **nitrogenous** *a*. *OED3*, etymology, definitions, and quotations. (For earlier published versions see the Society's website, http:// ling.man.ac.uk/More/PhilSoc/AppendixOED.html)
>
> [< NITROGEN *n*. + -OUS.]
> Containing nitrogen in combination; of or relating to nitrogen.
>
> **1796** S. DICKSON *Ess. Chem. Nomencl*. iii. 139 From the objections which I have urged against M. Chaptal's nitrogene, it is obvious what may be alleged against his nitrogenous gas. **1828** WEBSTER *Amer. Dict. Eng. Lang*., *Nitrogenous*, pertaining to nitrogen; producing niter. **1844** *Edinb. New Philos. Jrnl*. **37** 316 The excrements of birds. . .whether abounding in nitrogenous compounds, as in dry climates, or in the insoluble phosphates, as in rainy climates, must be valuable to the agriculturist. **1880** H. C. BASTIAN *Brain* 8 Certain plants. . .- seem capable of discriminating nitrogenous from other substances. **1928** *Q. Rev. Biol*. **3** 478/1 It appeared probable at a relatively early stage in the study of this vitamine that it was a nitrogenous base very probably related to the purine or pyrimidines. **1957** G. E. HUTCHINSON *Treat. Limnol*. I. xvi. 848 Ammonia. . . is the major nitrogenous end product of the bacterial decomposition of organic matter. **1991** *Here's Health* Jan. 81/4 The farming industry's answer is to add excessive amounts of nitrogenous fertilisers to the soil.

The entry for *nitrogen* itself is too long to critique in such detail.[7] In summary the *OED3* version recasts the definition of the uncompounded term (atomic number 7) in modern chemical

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[6] *Making of America*: http://moa.cit.cornell.edu/moa/; *JSTOR*: http://www. jstor.org (by subscription).

[7] For the full text of each version see again the Society's website, http:// ling.man.ac.uk/More/PhilSoc/AppendixOED.html

terminology, along the lines of *molybdenum*, and provides an interesting proto-use (from 1789) in the form *nitrigen* from an English translation of Lavoisier. The first actual use of *nitrogen* (in fact in the older form *nitrogene*) is predated by three years from the *OED*'s research file to an English translation of the French text in which the term was first introduced. A pattern begins to emerge of first usages for many scientific terms of foreign origin appearing in English translations. Later examples from a range of resources bring the documentary evidence for the term up to date.

A second branch of the *OED3* entry addresses itself to compounds of *nitrogen* with other words. By the time of *OED2* some seven compounds had been recorded. *OED3* added to this a further twelve (several with two or more meanings): *nitrogen balance*, *-collecting* (adj.), *compound*, *dioxide*, *gas*, *monoxide*, *oxide*, *pentoxide*, *peroxide*, *tetroxide*, *trichloride* and *trioxide*. The result illustrates with some comprehensiveness the patterns of use of *nitrogen*-words in English from the late eighteenth century onwards, as well as the range of sources employed by the *OED* in documenting this.

3. THE REVISION OF THE MODAL AUXILIARY *MUST V.*[1] FOR THE THIRD EDITION OF THE *OED*

3.1. *Preliminary remarks: historical syntax in the* OED

The *OED* project recognises that historical syntax is a distinct speciality to be given separate attention. It complements two other major areas, historical semantics, the central activity of the whole project, which is dealt with by the three main teams of revision editors, and historical morphology, dealt with by the team of etymology editors; and it overlaps a good deal with both.

Within the scope of historical syntax in the *OED*, a practical distinction can be made between English words whose development needs syntactic elucidation in one or two specific areas and those whose whole history calls for syntactic analysis. *OED* entries in the former category are dealt with by revising editors in the usual way and are subsequently checked over and adjusted from a syntactic point of view. A recent example would be the development of the usages exemplified by 'the child is two years old', 'a two-year-old

child', 'a two-year-old' and 'a child of two years old', as a part of the history of the adjective *old.* Entries that need to be set aside in their entirety for historical syntax work are relatively few, but many are long and complex. Over the past few years these have included pronouns such as *me* and *mine*, adjective (determiner) and pronoun complexes such as *many*, *more*, *most* and *much*, numerals such as *million* and *nine*, adverbs such as *never* and *now*, adjective (determiner), adverb and pronoun complexes such as *neither* and *nought*, adverb and preposition complexes such as *off* and *on*, prepositions such as *of*, conjunctions such as *nor*, and modal auxiliaries, of which a representative example is the word MUST *v.*[1], which was published on 12 June 2003 (see table in Appendix).

3.2. Overall structure

Comparing the *OED1*[8] entry and the *OED3* (revised) entry for MUST *v.*[1], the first thing to notice is the Branch divisions signalled by capital roman numerals. *OED1* has three whereas *OED3* has four, and they are differently categorised. The *OED1* Branch structure is based on a mixture of morphological and syntactic criteria. Branch I is 'the past tense of MOTE *v.*', Branch II is 'used as a present tense, and hence . . . as a past tense corresponding to this', and Branch III is the impersonal use. The *OED3* Branch structure is based on semantic distinctions (essentially relating to modality) as they developed through time. Branch I indicates 'possibility or permission'; Branch II 'necessity or obligation' (perhaps in Old English a lighter sense such as 'I was to', 'it was my part to', 'I was expected to'); Branch III 'presumed certainty'; and Branch IV 'permission' (probably a late independent development).

Why has this radical structural change to the Branches been made in *OED3*? The first reason is the anomalous status of *OED1*'s Branch III. The impersonal use is not on the same structural level as Branches I and II, since semantically it is part of Branch II. The

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[8] The content of the entry MUST v. in *OED2* is identical with that in *OED1* apart from the addition of the phrase 'if you must know', with its illustrative quotations, at sense 3c. The *OED3* version is therefore presented as a revision of the first edition of the *OED*, and this is, generally speaking, true of all entries for function words, to which only relatively minor recent senses and phrases have been added in *OED2*.

verb was not used impersonally when it was the past tense of MOTE $v.^1$, and it does not go back to Old English. It is therefore reasonable to consider it an offshoot from II (in *OED3* it is at 3c).

The second reason is more fundamental. *OED1* assumes the occurrence of a number of steps of development, namely:

  (i) (sense 1) must, the past of MOTE $v.^1$, expressing ability in the past (obsolete by the end of the Middle English period);

  (ii) (sense 2) must, the past of MOTE $v.^1$, expressing obligation in the past (as past use, obsolete by the end of the Middle English period);

  (iii) (sense 3a) must, expressing obligation, present tense use, developed in early Middle English; and,

  (iv) (sense 3d) must, expressing obligation, past tense, developed from the foregoing present tense in early modern English (with a 1691 example as the earliest occurrence).

OED1 can treat the early past-tense use (1 and 2) as a separate Branch representing the time when *must* had not split off from MOTE $v.^1$ because it assumes that the modern English past-tense use (3d) is an independent secondary development of sense 3a. This is not, of course, inherently impossible. It turns out, however, that the chronological gap between 2 and 3d is an illusion due to the *OED1* editors' lack of evidence. Visser, who pointed this out, provides data which fills the gap (Visser 1969: 1801f.), as does data collected in the course of *OED3* editing. There is in fact a continuous history of the use of *must* as a past tense expressing obligation. It has gradually been restricted to virtual oblique contexts in later modern English, i.e., to contexts in which modals like *may* and *can* are backshifted to *might* and *could*, and where the pastness is signalled by preceding lexical items explicitly so marked. Synchronically, therefore, the use could now be viewed as backshifting that is not morphologically marked, but in diachronic terms the use is best interpreted as restriction of the originally general past-tense use to contexts where ambiguity is unlikely. In *OED3*, therefore, sense 3d has been merged with sense 2a.

This merger makes for economy and has extensive implications. *OED1*'s distinction between Branches I and II, splitting the history of the verb between its early use as a simple past tense of another verb and its later use as an independent verb, becomes unworkable.

The evidence, considered chronologically, brings the semantic development, and specifically the changes in the word's modality, to the fore. In *OED3* the scope of Branch I has been limited to cover only the uses in which *must* can be regarded as simply the morphological past tense of MOTE *v.*[1] in one of its senses, that of permission. The evidence now tells us that sense 2 originated as the past tense of MOTE *v.*[1] in a different semantic application, that of necessity or obligation, but when the new present tense use emerged, it became its morphologically unmarked past tense. It makes sense to adapt the scope of Branch II to include this application. Categorisation based on the kind of modality expressed by *must* seems to reflect the word's development more clearly.

3.3. *Branch II*

Turning to *OED1*'s Branch II (in which sense 2 is now to be included) we find a series of semantic categories which are listed together in a sequence that is only partially coherent. There are a number of senses related to the deontic (obligation/necessity) semantic area:

> Fixed futurity: 'I am fated to' (3b)
> Insistent demand: 'I am determined to' (4)
> Conditional use: 'I would be obliged to' (5)
> Negative use (noteworthy because the domain of the negative particle is the dependent infinitive clause): 'I am obliged not to' (7)
> The so-called elliptical uses (8).

But there are also two quite distinct senses. At sense 6 is placed a use involving epistemic modality ('It is a logical inference that x is the case'), a fundamental shift (paralleled in other modal auxiliaries) which should be highlighted as a major semantic area of the verb. The additional evidence we now have shows that this use goes back to early Middle English and is nearly as old as sense 3. Its placing in the middle of Branch II is semantically and chronologically untenable. Then at sense 9, there is a curious regional use in the sense 'may' or 'shall'. This represents a further change of modality, back to something like permission again, and it seems likely that this is an independent development, unconnected with sense 1, since

there is no traceable continuity of use and it is regionally confined. (If evidence was found to bridge the gap, of course, we would need to revise the entry's structure again.) It makes sense to separate off these two usages into branches of their own, numbered III and IV.

With the removal of these, the remaining senses within Branch II make a meaningful chronological sequence, with the following exceptions.

(i) The so-called elliptical uses are placed at sense 8 in *OED1* as if they were on a comparable footing with the other deontic uses. On examination it is clear that they represent special syntactic uses (i.e. 'with verb of motion understood' and 'with implied infinitive taken from the context') of two of the other senses. Some examples have the meaning of sense 4 while the majority go with sense 3. They are chronologically later and therefore it is better to subordinate them to these senses. Although there are modal auxiliaries (e.g. MAY *v.*[1], WILL *v.*[1]) with a prior history as non-auxiliary main verbs, the history of *must* is quite different from theirs.

(ii) By contrast, the phrases that in *OED1* are subordinated to sense 3 at c have been upgraded to a main-sense level with a subsense for each phrase. This is not absolutely necessary, but has certain advantages. It keeps the phrases within Branch II, but avoids identifying the sense in which they are used exclusively with any of the foregoing senses. The phrases, with their own definitions, are accorded the status of an independent subordinate section, which follows the common practice of *OED3*.

By making these readjustments we gain a more clearly classified set of deontic meanings arranged chronologically which can plausibly claim to reflect the actual course of development.

3.4. *Parallelism of development*

Another aspect of the verb which *OED1* inadequately represents — either by telescoping separate uses, or by overlooking them entirely — is the degree of symmetry, or at least parallelism, between different uses. What we know of other modal auxiliaries makes it likely that uses referring to past time, with *must have* and the past participle of

the main verb, should exist in parallel with uses of *must* and the infinitive. Similarly, we would expect the Branch expressing epistemic meaning to have developed a range of uses (e.g. the negative with main verb as its domain) syntactically paralleling those of the Branch expressing deontic meaning. These expectations are confirmed by examination of the broader range of raw material now available to us.

As regards hypothetical necessity in conditional sentences, *OED3* research shows that it can occur with reference to both the present ('If x were the case, I would have to do y') and the past ('If x had been the case, I would have had to do y'). In *OED1* the former is not given due recognition, probably because of lack of evidence, but is almost hidden away as 'past subjunctive' at sense 2b with only two quotations from Chaucer. The latter, constructed from *must have* + the past participle, is introduced in a curious way ('the need of a past conditional has been supplied by placing the principal verb in the perfect infinitive') at sense 5. In *OED3* we have brought them together at 5a and 5b, as it seems likely that they are aspects of Branch II, developed from senses 2 and 3.

In parallel with *must have* expressing hypothetical necessity in the past, there exists a *must have* + past participle use expressing the (present) necessity of a past action, corresponding to the ordinary present 'necessity' sense. Although this use dates back to the 15th century, *OED1* overlooked it altogether. This is sense 3d in *OED3*.

Again, paralleling the two uses already mentioned, the construction with *must have* + past participle also exists in the negative use, sense 7 (which, as has been mentioned, is syntactically anomalous in negating the main verb rather than the modality). This seems not to have existed in *OED1*'s time, for the earliest example we have traced dates only from 1937. It is sense 7b in *OED3*.

Branch III, expressing 'presumed certainty' (epistemic) use, parallels the 'necessity' Branch in two ways. First, like the other major uses of this verb, it has a past use formed with *must have* + the past participle. *OED1* did include this, but combined it with the present tense use under sense 6a. These uses are now separated as 8a and 8b.

Second, there is a negative construction with the same unusual domain over the infinitive clause as the Branch II negative (e.g. 'they must not be terribly concerned about loud noise, otherwise they would move away'). This has both present time and past time

reference, the latter expressed by *must have* + the past participle. These senses do not appear in *OED1*, probably because they had scarcely arisen when the entry was compiled; the evidence is not common until the later 20th century. Also, perhaps surprisingly, the *must have* construction is attested earlier than the present tense use.

3.5. *Consequent changes*

The restructuring described above has led logically to a number of other, more minor, changes:

 (i) The past (historic) 'satirical or indignant' use (e.g. 'what must he do but run away') has been moved from 3e to 2c to parallel the move of the main past tense to sense 2.

 (ii) On the basis of new evidence an 'insistent demand or firm resolve' sense with reference to the past has been placed at 2b, paralleling the (earlier) 'insistence' sense in the present. Because it is a branch of the older past use, it comes earlier in the structure than its corresponding present use, a slightly undesirable consequence of the overall entry structure; but to place it with its present-tense equivalent would not be ideal either.

 (iii) Under the 'presumed certainty' Branch the old 6b, expressing past inferred certainty in oblique and virtual oblique narration, has to be a separate main sense, just as 2a in Branch II is.

3.6. *Summary and conclusions*

The revised entry for MUST *v.*[1] demonstrates that since the completion of *OED1* a new wealth of evidence for modal verbs and other 'historical syntax' entries has come into being. Visser is only one, though a major example, of a number of writers on historical syntax who have provided such evidence to illustrate their studies. Central resources from which evidence of usage is taken include: *OED*'s own quotations, the *Middle English Dictionary*, and the files and databases compiled by the *OED3* reading programmes.

With new evidence we gain a clearer appreciation of the history of these words. We find that there are additional senses, some of which were overlooked by *NED* and others which have arisen in the period since the *NED* entry was compiled. Not infrequently,

additional senses give a more meaningful shape to the entry as a whole and enable us to draw clearer distinctions between those senses already registered by *NED*.

4. What counts as evidence for an English word? Occupational surnames as a case study

A name, if the etymological identification is correct, may give evidence that a word has at some point existed in a language, but it is not a contextual, datable example of use, and therefore is not normally admitted in the quotation paragraphs of the *OED*. Instead, it is presented in a note if it appears to offer strong supplementary evidence, most notably where it supplies a terminus ante quem earlier than that of our earliest examples of actual contextual use. Similarly, formal developments or peculiarities shown by a name cannot normally be taken as implying similar forms for the related lexical item, as it is by no means impossible that these forms are unique to the name, and these again are confined to a note.

There are nonetheless areas of difficulty or ambiguity. One is presented by late medieval or, to beg the question somewhat, Middle English occupational surnames. At the outset, there is a question of nomenclature concerning the term 'surname': many specialists in onomastics would prefer 'occupational by-name', avoiding the rather leading and perhaps anachronistic term 'surname'. However, the term 'surname' has been retained for *OED3*, not because we think that it is intrinsically a better term, but because we feel that it will be more obviously communicative to a wider audience, which is always a key consideration in lexicography.

Leaving aside the question of nomenclature, there are two reasons why occupational surnames present something of a special case. Firstly, the semantic content of these names, as a class, is in little doubt; we may seldom know for certain that a particular named individual had the occupation suggested by the name, and this becomes increasingly less likely with later documents, but the basic assumption that the name represents what was at one point an actual occupational term seems safe, especially when supported by later examples of contextual use. Secondly, the context of a document will sometimes leave real ambiguity as to whether what

we have is an example of an occupational surname or a reference to a particular person's occupation, hence admissible as an example of contextual use for the dictionary. It is possible that in some cases this ambiguity might be resolved by close examination of the context of the document in which the name is recorded, but this sort of investigation of documentary sources sits ill with the editorial resources of a general historical dictionary, even a well-resourced one like the *OED*; it may also lead lexicographers or readers to overlook the fact that our compilation of data is never completely exhaustive, with only a selection of examples being given for each period, from which only broad conclusions can be drawn; furthermore, it would make for a series of ad hoc decisions, which would be unlikely to lead to the sort of consistency of approach which readers rightly expect of a dictionary.

Such occupational terms, whether used as surnames or as identifications of a particular person's occupation, will, unlike other types of names, normally be included in *OED3*'s quotation paragraphs where they provide the earliest evidence for a word, and so will figure in first-date searches on the online version of the dictionary. To take a few examples, *moulder*, *mower* and *milker* are all first attested in this sort of use, and a consistent approach is therefore applied to each, with the example appearing in the main quotation paragraph, and a note being supplied which draws attention to the fact that the earliest example is in a surname, and hence in a special sort of documentation.[9]

We are reminded of the fact that this is a special sort of evidence, and also of the old observation that names have reference but no denotation, if we look at **moulder** *n*., where we may have at least a momentary hesitation over which sense to assign the 1290 example to. It is probably right to assume that this example shows the precise sense 'kneader or shaper of dough', rather than sense 1b, referring to brick making; but to the extent that we do have any certainty, it is the result of a certain amount of circular thinking based on the relative dates of other examples for each sense:

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[9] For the full text of each entry see the Society's website, http://ling.man.ac.uk/More/PhilSoc/AppendixOED.html

moulder, *n.*[1], *OED3*, definitions and early quotations for first two senses:

1. a. A person who kneads dough or shapes it into loaves, esp. in commercial baking. Cf. MOULD *v.*[1] 1a.
In quot. 1290 as a surname.

1290 in R. R. Sharpe *Cal*. *Wills Court of Husting* (1889) I. 94 Stephen le Moldere. **1440** *Promp*. *Parv*. (Harl. 221) 342 Mooldare of paste, *pistricus*. **?a1500** in T. Wright & R. P. Wülcker *Anglo-Saxon & Old Eng*. *Vocab*. (1884) I. 809/11 *Panificator*, a mouldere.

. . .

b. More generally: person who moulds a material into a particular form, *esp*. one who moulds clay into bricks, pottery, etc.

1599 T. MOFFETT *Silkewormes* 24 Eu'n as a lumpe of rude and shapeless clay Into the mould a Moulder cunning brings.

Much more considerable ambiguity is encountered with the next group of examples. Hitherto the examples have all at least been very straightforward etymologically, showing agent–noun formations on securely attested Old English bases. When we come to agent nouns and other occupational terms that are borrowed, the difficulties become much greater. For instance, with *macer*, *mariner* and *messenger* there is no way of knowing whether uses as surname reflect earlier currency of the English word or simply show the use as a name of the Anglo-Norman etymon in each case; with *minister* there is even further ambiguity as to whether the name reflects the English, the Anglo-Norman or the Latin word. As specialists in onomastics have suggested, it is even possible that such examples of Latin or Anglo-Norman words may show scribal substitution for either an English name or an English occupational term (Clark 1992: 549).

In such cases we feel that there is no real justification for taking the surname evidence as showing currency of the word in English, and thus in each case the examples are excluded from the quotation paragraph, and a note is given instead in the etymology. Thus at **mariner** *n*.: 'The word is attested as a surname from the late 12th cent. (in forms *mairener*, *mariner*, *marinier*, *marner*, *marnir*,

maryner, and *meriner*), though it is uncertain whether these reflect the Anglo-Norman or the Middle English word.'

In a multilingual situation, names carry no clear mark of linguistic identity, except in rare cases like that of *marbler*, where the change of *r* to *l* is otherwise attested only in occurrences of this word and the simplex *marble* in English, not in Anglo-Norman, and names with an *l* may thus appear likelier to be of English origin — although even here, there is no clear motivation for the change in the phonology or morphology of either language, and it is only on the balance of probabilities that the examples with *l* are taken as evidence for the English word.

A modus operandi is thus established for *OED3*: where there is no doubt about their formation from English elements, occupational surnames may be accepted as quotation evidence for the dictionary, so long as their slightly unusual status is flagged by a note (reminding the reader that this is not in itself an example of the word's use, but instead a piece of evidence which implies that the word was current at this date if not earlier). Where there is ambiguity as to whether the name shows the English word or its etymon, or indeed simply a parallel in another of the languages which contribute to names in this geographical area in this historical period, the evidence for the surname cannot be taken as definitely implying currency of the English word, and it will be confined to a note.

Of course, difficult cases remain. Lexicographers can often establish a general methodology, but the data will rarely allow an absolutely identical approach in every case. To give just one example of the sort of difficulty that can arise, *marler* is a formation from a base which is of Romance origin, but a formally corresponding derivative is not found in Anglo-Norman, and Middle French only has forms showing the distinctively Central French development of the base with *n* in place of *l*. Here the better course is probably to allow the surname examples the benefit of the doubt and admit them to the main quotation paragraph:

> **marler** *n.*[1], *OED3*, etymology, definition, and earliest quotations:
> [< MARL *v.*[1] + -ER[1]. Cf. post-classical Latin *marlator* (1223 in a British source), Middle French *marneeur* (French *marneur*).

The early evidence comes entirely from surnames. It is unclear whether these are examples of an English or an otherwise unattested Anglo-Norman word; cf., however, the name *Willelmus le Marlehewere* (1327).]
A person who digs marl. Also: a person who spreads marl on land.

1275 in G. Fransson *Middle Eng. Surnames* (1935) 182 Hugo le Merlere. **1327** in G. Fransson *Middle Eng. Surnames* (1935) 182 Nich. le Marlere. Steph. le Marlar.

If we turn now to *murenger* the same course might be adopted, were there not also semantic worries about the match between the surname and the later contextual uses, reinforced by the existence of post-classical *muragiarius* in a slightly different sense. Here one is tempted to think that a thorough examination of all of the relevant medieval and early-modern documents might well give us a much clearer impression of the duties of the various officers concerned and hence help to clear up these difficulties, but this is beyond the scope of even a very large dictionary such as the *OED*, and the best that we can do is to make a pragmatic decision and present the available evidence to the reader:

murenger *n.*, *OED3*, etymology, definition, and earliest quotation:
[< MURAGE *n.* + -ER[1]. With the insertion of *n* in *β* forms cf. note s.v. MESSENGER *n.* Cf. the following uses as surnames, although it is uncertain whether these should be taken as implying currency of the English word or of an (otherwise unattested) Anglo-Norman parallel, and also whether the sense should be assumed to be the same as in later English use or alternatively 'collector of murage' (cf. post-classical Latin *muragiarius* collector of murage (*c*1320 in a British source)):
1286 in B. Thuresson *Middle Eng. Occup. Terms* (1950) 157 Joh. le Murager. **1298** *Commission* 24 Sept. in *Cal. Patent Rolls Edward I* (1895) III. 362 John le Moragir. **1345** in B. Thuresson *Middle Eng. Occup. Terms* (1950) 157 Ric. Morager.]

An officer responsible for keeping the walls of a city in good repair.

?1580 in *9th Rep. Royal Comm. Hist. MSS* App. I. 305/1 [Oath for burgesses of Great Yarmouth, for their. . .election of] muragers.

I offer these examples as a reminder that total consistency is something of a chimera in historical lexicography, as the number of permutations of the evidence is almost limitless. Revision work for *OED3* offers a wonderful opportunity both to incorporate new data and reconsider the existing data, and also wherever possible to identify patterns across groups of entries and ensure that similar cases are treated similarly. However, we can never establish rigid templates into which all words of a certain type can be accommodated. I also hope to have offered an illustration of the difficult decisions which often have to be made during the editing of a dictionary entry, and a reminder that a dictionary entry ideally needs to be read carefully and as a whole before the data is made the basis of further work.

5. A BRIEF SURVEY OF NEW AND REVISED *OED* ENTRIES

To conclude this paper, I will attempt a very brief overview of the effect of *OED* revision on a sample of entries, concentrating especially on those areas which are most easily quantifiable, such as antedatings, postdatings or substantive changes to etymologies. I have taken a sample of 200 entries from M, taking every 50th entry in the first half of MA, the first half of ME, the second half of MI, the second half of MO and the first half of MU.[10] That amounts to roughly one entry in every hundred of those published so far in the revised part of the alphabet.

Forty-one of the 200 entries are newly added. Listed in chronological order, with first date and a brief indication of the etymological type, they are:

[10] For the full list of *OED3* headwords included in the sample see the Society's website, http://ling.man.ac.uk/More/PhilSoc/AppendixOED.html

manslot, *n.* Old English; loanword (early Scandinavian)

morrow-while, *n.* ante 1225; compound

misnurture, *n.* and *a.* ante 1540 as *n.*, 1597 as *adj.*; compound

macrocephalus, *n.* 1578; loanword (Latin)

mumps, *n.*² 1592; plural of **mump** *n.*¹ (split on morphological grounds)

mothy, *a.*² 1714; derivative

mani, *n.*³ 1819; loanword (South American Spanish)

minch, *v.* 1836; variant of **mitch** *v.*

mele, *n.*² 1851; loanword (Hawaiian)

Mahar, *n.* 1855; loanword (Marathi)

medialization, *n.* 1861; derivative

Manitoba maple, *n.* 1887; compound (place name + English word)

mosbolletjie, *n.* 1890; loanword (Afrikaans)

mucilage, *v.* 1891; conversion

mud-slinger, *n.* 1896; compound

multibarrel, *n.* and *a.* 1899 as *n.*, 1951 as *adj.*; compound

mind-machine, *n.* sense 1 1903, sense 2 1986; compound

misfield, *n.* 1909; conversion

multicursal, *a.* 1922; compound (second element an inferred stem)

muckite, *n.*² 1935; derivative

Memphis, *n.* sense 1 1938, sense 2 1981; from a place name (of the U.S. city)

Manyano, *n.* 1941; loanword (Xhosa)

man-powered, *a.* 1950; compound

ming chi, *n.* 1958; loanword (Chinese)

macroglial, *a.* 1961; derivative

megadonty, *n.* 1961; derivative

man, *n.*⁴ 1963; three senses; loanword (Afrikaans)

mellow, *n.*² 1966; origin uncertain

misprice, *v.* 1966; compound

minikini, *n.* 1968; compound (second element an inferred stem)

Mukhabarat, *n.* 1969; loanword (Arabic)

mini-nuke, *n.* 1973; compound

motorhead, *n.* 1973; compound

magnetotactic, *a.* 1975; compound

machete, *v.* 1978; conversion
mudbugging, *n.* 1982; compound
mech, *n.*[2] 1986; shortened < an English word
media wasp, *n.* 1993; compound (scientific Latin + English word)
Mountainboard, *n.* 1996, compound
meio-, *comb. form* undated; from Greek
mio-, *comb. form* undated; from Greek

There are also thirty-two new senses or subsidiary parts of speech that have been added to existing entries. Only ten of these date from the second half of the twentieth century, and many of them from much earlier. In one entry an adjective branch has also been added. (For full listings of these, and also of all subsequent categories, see the Society's website.)

Not surprisingly, seventeen of the new entries have first dates from the second half of the twentieth century, but others are much earlier. The etymological types shown by these words are also very varied. There is a broad selection of different types of internal formation, with compounds and formations with derivational suffixes predominating, and besides these there are ten loanwords from a wide variety of different languages (or twelve, including the combining forms which are ultimately from Greek, by analogy with borrowed words containing this element).

medialization *n.* and **mele** *n.*[2] provide simple examples of a newly added internal formation and a newly added loanword:

medialization *n. OED3*, label, etymology, definition, and first quotation:

Phonetics. rare.
[< MEDIALIZE v. + -ATION.]
The voicing of a consonant; the action of making a consonant a (voiced) unaspirated stop. Cf. MEDIALIZE v.
1861 W. STOKES *Middle-Cornish Poem* in *Trans. Philol. Soc.* App. 80 The same reason accounts for the medialization of the t of tus.

mele *n.*[2] *OED3*, etymology, definition, and first quotation:
[< Hawaiian *mele* song, chorus.]

In Polynesia, esp. Hawaii: a chant with a unique vocal melody, composed and performed by a professional chanter, often to commemorate a significant cultural event or to praise a leader.

1851 H. T. CHEEVER *Life in Sandwich Islands* x. 181 The first teacher at Lahainaluna. . .has in his possession a mass of old Hawaiian meles. . . They are somewhat after the style of the old Greek Rhapsodists.

The earliest item in the list, **manslot** *n.*, perhaps requires some explanation. It has been added to the dictionary largely on account of its modern use as a historical term (it still not being *OED*'s policy to include all Old English vocabulary, only that which survives securely into the Middle English period). The etymology also shows an *OED3* innovation, in the presentation of the immediate etymology as from 'early Scandinavian'. The reason for this is that we have not wanted to continue the practice of labelling the attested Old Icelandic forms as Old Norse and presenting these as the direct etymons of English words, when in many cases the actual donor form would have differed very significantly; nor, however, have we wanted to introduce starred reconstructed proto- (West or East) North Germanic forms, so what we do instead is give the introductory formula ' < early Scandinavian', with the supporting attested forms following in parentheses (in this particular case only Old Icelandic is available):

manslot *n. OED3*, label, etymology, definition, and quotations: Now hist.
[< early Scandinavian (cf. Old Icelandic *mannshlutr*), with the second element perh. assimilated to LOT *n.* 2a. In form *manesloth* re-formed < the genitive of MAN *n.*[1] + LOT *n.*; in form **manlot** re-formed from MAN *n.*[1] + LOT *n.*
For earlier evidence of the use of this system of land division in the Danelaw cf. the following (from a 14th-cent. MS copy of an original charter of 956, documenting the grant of various parcels of land in Nottinghamshire):
a1400 (OE) *Bounds* (Sawyer 659) in W. de G. Birch *Cartularium Saxonicum* (1893) III. 230 On Fearnes felda gebyrað twega manna hlot landes in to Sudwellan on Healum are seoxta acer

& dreon manna Hlot on Norman tone. . . & feower manna hlot ealles dans landes.]

A smallholding similar in size to a bovate (BOVATE n.); (esp. in early medieval Norfolk) such a smallholding given to a Danish soldier upon settlement.

OE *Charter: Bury St. Edmunds*, *Possessions*, *Rents*, & *Grants* in A. J. *Robertson Anglo-Saxon Charters* (1956) 192 On Elsingtun hundred ah Sancte Eadmund xxvii manslot, on Spelhoge hundred xlv manslot, [etc.]. c1160 in F. M. *Stenton Documents Social & Econ. Hist. of Danelaw* (1920) V. 297 Terram que dicitur Manesloth, ad cuius supplementum dedi de meo demenio unam acram terre.

1920 F. M. STENTON *Documents Social & Econ. Hist. of Danelaw* V. p. xxi (*note*) This explicit equation between the manslot and the bovate justifies the inference. . .drawn from the. . .recurrence of the bovate in these texts. 1928 *Eng. Hist. Rev.* 43 381 It strongly suggests a definite sequence whereby the earlier hides were broken up by the Danish settlement, which introduced the manlot or bovate as the typical peasant holding. 1970 J. J. N. MCGURK *Dict. Medieval Terms* 26/2 Manslot, the word is of Scandinavian origin meaning 'man's share'. It is descriptive of a landholding smaller than an oxgang and might well have been the amount of land which fell to the rank and file of the Danish army at the time of settlement. As late as the 13th century it was a familiar division of land in Norfolk.

Of the 159 existing entries, twenty-six have been newly upgraded to headword status, which in *OED2* were presented as subsumed lemmas under a parent headword, usually lacking a full etymology and pronunciation, and with other aspects of the documentation often given in a rather truncated form. Of these 159 words, thirty-eight (or 24%) have been antedated, that is to say that an earlier first example has been added for the word overall, while a further thirty-three subsidiary senses and secondary parts of speech have been antedated. To take the one function word in the sample, at **more**, *a.*, *pron.*, *n.*[3], *adv.* and *prep.*, twenty-one out of fifty-two original senses and subsenses have been antedated.

Overall forty-four words and senses have been postdated — and I exclude from this total routine postdating of words for which the first edition had contemporaneous quotations, including only those instances where *OED2* had a last date earlier than 1800, or had labelled the word or sense as obsolete or a nonce word.

In addition to this, fifty-seven first quotations (for words or senses) have been redated on bibliographical grounds. A large number of these are either Middle English quotations redated later by adopting manuscript dates in place of composition dates, following the example of the *Middle English Dictionary*, or Old English quotations now redated according to a broad threefold periodisation for the Old English period. There are also a number of later sources redated on bibliographical grounds (including Shakespeare's plays, which are now dated according to the date of the print cited, rather than by the assumed date of composition).

Twenty-three words (or 17% of the *OED2* headwords) show substantive changes to the immediate etymology. By this I mean that the immediate etymology has changed either in its type, for instance with an item formerly given as an internal formation now being given as a loanword, or in its content, for instance with a different foreign-language word now being given as the etymon. Thus to illustrate the sort of thing that is excluded from my list, **motherless**, *a.*[1], *n.* and *adv.* now has Germanic parallels supplied in the etymology section, but the etymology is still presented as a compound within English, so I have not counted this as a substantive change.

To take a couple of examples where the immediate etymology has changed, **Mandaite**, *n.* and *a.* was given previously (implicitly at least) as a borrowing directly from Mandaean Aramaic, whereas now it is given as a loan immediately from French (and with this in turn being from Latin rather than directly from Mandaean Aramaic). This is done because of the considerably earlier attestation of the word in scholarly writings in French than in English, and a date is now supplied for the French word.

> **Mandaite**, *n.* and *a.* Etymology, definition, and earliest quotation from *OED2* and *OED3*:

[See prec. and -ITE.]
= MANDÆAN.
1881 SAYCE in *Encycl. Brit.* XIII. 117/1 The Mendaite
inscription of twenty lines discovered in a tomb at Abu-Shadr
in south Babylonia.

[< French *Mandaite* (1753) < post-classical Latin *Mandaeus*
(see MANDAEAN *a.*) + French *-ite* -ITE[1].]
A. *n.*
1. = MANDAEAN n. 1.
a1837 *Encycl. Metrop.* XXIV. 239/1 The sect of the Mandaïtes
or Christians of St. John.

   manuable *a.* shows how fuller data on a putative etymon can lead
to its rejection; the dictionary record indicates that the Old French
word is only found much earlier in an apparently isolated
attestation, and the etymology is therefore revised to reflect this.

   manuable *a.* Etymology from *OED2*; etymology, definition, and
earliest quotation from *OED3*:

   [a. OF. *manuable*, f. L. *manu-* hand: see -ABLE. Cf. MANI-
ABLE.]

   [< classical Latin manū, ablative singular of *manus* hand (see
MANUS *n.*[1]) + -ABLE, perh. after MANUAL *a.* or MANI-
ABLE *a.* Cf. Old French *manuable* of a size to be held in the
hand (13th cent., apparently in an isolated attestation), and
post-classical Latin *manuabilis* tractable, governable (15th cent.
in a British source). Cf. UNMANUABLE *a.*]

   That can be easily handled or carried about.

   1594 T. BLUNDEVILLE *Exercises* (1636) VII. xii. 665 The
yard thereof is of so great a length, as it is not manuable in a
ship.

   To return finally to the sort of scientific material looked at by
John Simpson in the first part of this paper, **medusome**, *n.* shows a
German loan which has been tracked down purely by close
attention to our own quotation evidence. Lexicographical coverage
of such technical vocabulary in German is very poor, certainly in

comparison with *OED*'s coverage of such registers in English, so we
are often left to our own resources in researching such etymologies.
In this case the solution turns out to be relatively simple, if a little
laborious: our (newly added) earliest quotation is from an English
report of Haeckel's work, and a little work in the libraries takes us
back to his German coinage, replacing *OED2*'s etymology "[f.
MEDUSA (? + Gk. σωμα body).]":

> [< German *Medusom* (1888 Haeckel, in *Jenaische Zeitschr. f.
> Naturwissensch.* **22** 5) < *Medu-* (in *Medusoid* MEDUSOID
> *a.*) + *-som* –SOME⁴.]
>
> In Haeckel's theory of siphonophore structure: a modified
> medusoid.
>
> **1888** HAECKEL in *Rep. Sci. Res. H.M.S. Challenger Zool.*) **28**
> 3 The new theory of the organisation of the Siphonophoræ to
> which I have been led by my investigations on their compar-
> ative anatomy and ontogeny may be briefly designated as the
> *Medusome Theory*.

   medipectus, *n*. was formerly given as 'ModL', a formula used in
the first and second editions to show that a word belongs essentially
to the international language of science and may thus also be
assumed to be formed from morphological elements that are more
or less 'international'. The fuller research now possible on these
words shows that there is often scant evidence for currency outside
the writers in English who are cited, and this style has therefore
been abandoned completely: loans (including those from taxonomic
Latin) are clearly identified as such, and all other cases, such as this
word, are given as formations within English (albeit from word-
forming elements ultimately of classical origin) where there is no
evidence to the contrary:

> **medipectus** *n*., *OED3*, etymology, definition, and earliest
> quotation:
> [< MEDI- + PECTUS *n*. Cf. French *médipoitrine* (1840).]
> The ventral aspect of the mesothorax of an insect; the
> mesosternum.

1826 W. KIRBY & W. SPENCE *Introd. Entomol.* III. 378 *Medipectus* (the *Mid-breast*). The underside of the first segment of the alitrunk.

In addition, forty-four words have been given full, explicit etymologies for the first time — among them most of the upgrades, but also a number of existing headwords which previously had 'see prec.' or similar for the etymology (as was the case with Mandaite, n. and a. above). Additionally, Old and Middle English words are no longer presented stylistically as though they were their own etymons.[11] These changes are less dramatic, but nonetheless make a big difference to *OED* as a searchable database of etymologies.

I hope that this short overview of a sample of *OED3* entries helps to put the more detailed discussion of the remainder of this paper in context. It is the careful accumulation and consideration of small detail within a consistent and structured framework that lies at the heart of the *OED*, and the net result of such relatively small changes makes a significant difference to the picture the *OED* presents of the history of the vocabulary of English.

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[11] See the Society's website for an example: **mislear** *v.*

REFERENCES

BROWN, KEITH & LAW, VIVIEN, (eds.), 2002. *Linguistics in Britain: Personal Histories*, Publications of the Philological Society, Oxford: Blackwell.

CLARK, CECILY, 1992. 'Onomastics', in N. Blake (ed.), *The Cambridge History of the English Language:Volume II 1066–1476*, Cambridge: C.U.P., 542–604.

DURKIN, PHILIP, 1999. 'Root and branch: revising the etymological component of the *OED*', Transactions of the Philological Society 97, 1–50.

DURKIN, PHILIP, 2001. 'Medieval material in the Third Edition of the Oxford English Dictionary', Medieval English Studies Newsletter NS 3, 8–13.

DURKIN, PHILIP, 2002. 'Changing documentation in the Third Edition of the *Oxford English Dictionary*: Sixteenth-century vocabulary as a test case', in Teresa Fanego, B. Méndez-Naya and E. Seoane (eds.), *Sounds, Words, Texts and Change. Selected Papers from 11 ICEHL, Santiago de Compostela, 7–11 September 2000*, Amsterdam: Benjamins, 65–81.

DURKIN, PHILIP, 2002. 'La3amon in the Third Edition of the *Oxford English Dictionary*: a brief report', in Rosamund Allen, Lucy Perry and Jane Roberts (eds.), *La3amon: Contexts, Language and Interpretation*, London: King's College London, Centre for Late Antique and Medieval Studies, 203–210.

DURKIN, PHILIP, 2002. ''Mixed' etymologies of Middle English items in *OED3*: some questions of methodology and policy', in *Dictionaries: the Journal of the Dictionary Society of North America* 23, 142–155.

DURKIN, PHILIP, MCCAULEY, JANE, STYLES, TANIA, SCHAD, SAMANTHA, FULTON, NEIL, ESPOSITO, ANTHONY & TULLOCH, JOANNA, 2002. 'From the etymology workshop: work in progress on the Oxford English Dictionary', in *Oxford University Working Papers in Linguistics, Philology and Phonetics* 7, 225–242.

ESPOSITO, ANTHONY, 2003. 'Mediaeval Plants in the *Oxford English Dictionary*', in C. P. Biggam (ed.), *From Earth to Art: the Many Aspects of the Plant-World in Anglo-Saxon England*, Amsterdam: Rodopi, 231–248.

JACOBSSON, B., 1979. 'Modality and the modals of necessity *must* and *have to*'. English Studies 60, 296–312.

MURRAY, K. M. ELISABETH, 1977. *Caught in the Web of Words: James Murray and the Oxford English Dictionary*, New Haven: Yale University Press.

The Oxford English Dictionary, 1884–1933, SIR JAMES A. H. MURRAY, HENRY BRADLEY, SIR WILLIAM A. CRAIGIE AND CHARLES T. ONIONS (eds.); *Supplement*, 1972–1986, ROBERT W. BURCHFIELD (ED.); 2ND. ED., 1989, JOHN A. SIMPSON AND EDMUND S. C. WEINER (eds.); *Oxford English Dictionary Additions Series*, 1993 vols. I–II, JOHN A. SIMPSON AND EDMUND S. C. WEINER (eds.), 1997, vol. III, MICHAEL J. PROFFITT (ed.). 3rd. ed. (in progress) *OED Online*, March 2000–, ed. JOHN A. SIMPSON, http://www.oed.com.

PALMER, F. R., 1990. *Modality and the English modals*, London: Longman.

SIMPSON, JOHN, 1999. 'Editing the OED: beyond completion', in A. Moerdijk and R. Tempelaars (eds.), *Van A tot Z en Verder?: Lezingen bij de Voltooiing van het WNT*, Den Haag: Sdu Uitgevers; Antwerp: Standaard, 53–72.

SIMPSON, JOHN, 2000. 'Preface to the Third Edition', http://oed.com/about/oed3-preface/.

SIMPSON, JOHN, 2001. 'The Oxford English Dictionary on the Web'. In: *Bollettino dell'Opera del Vocabolario Italiano*. Supplemento I: La Lessicografia Storica e i Grandi Dizionari della Lingue Europee, 19–26.

SIMPSON, JOHN, 2002. 'Afterword', in *Robert Burchfield The English Language*, Oxford: Oxford University Press, 175–187.

SIMPSON, JOHN, 2002. 'The Revolution in English lexicography', Dictionaries: the Journal of the Dictionary Society of North America 23, 1–23.

SIMPSON, JOHN, 2003. 'Reliable authority: tabloids, film, email, and speech as sources for dictionaries', in Jean Aitchison and Diana M. Lewis (eds.), *New Media Language*, London: Routledge, 187–192.

SIMPSON, JOHN, 2003. 'The production and use of occurrence examples', in Piet van Sterkenberg (ed.), *A Practical Guide to Lexicography*, Amsterdam: John Benjamins, 260–272.

TOPS, G. A. J., 1977. 'Some aspects of past and subjunctive *must*', in P. G. J. van Sterkenburg, W. Pijnenburg, J. v.d. Voort v.d. Kleij and H. T. Wong (eds.), Lexicologie (F. de Tollenaere Festschrift), Groningen: Wolters-Noordhoff, 279–286.

TRENCH, RICHARD CHEVENIX, 1860. *On some deficiencies in our English dictionaries: being the substance of two papers read before the Philological Society, Nov. 5, and Nov. 19, 1857*, 2nd ed., London: J. W. Parker and Son.

VISSER, F. T., 1969. *An Historical Syntax of the English Language III.1*, Leiden: E. J. Brill.

WEINER, EDMUND, 1994. 'Local history and lexicography', The Local Historian, 24:3 August, 164–173.

WEINER, EDMUND, 2000. 'Medieval multilingualism and the revision of the *OED*', in D. A. Trotter (ed.), *Multilingualism in Later Medieval Britain*, Woodbridge: D. S. Brewer, 169–174.

WEINER, EDMUND, 2000. 'The language of probate inventories', in Tom Arkell and Nesta Evans (eds.), *When Death Do Us Part*, Oxford: Leopard's Head Press Limited, 255–267.

WINCHESTER, SIMON, 2003. *The Meaning of Everything: The Story of the Oxford English Dictionary*, Oxford: University Press.

APPENDIX

MUST *v.*[1] in *OED1* and *OED3*

must *v.*[1]

OED3					OED1				
All OED3 senses	OED3 sense (* = new)	OED3 location of moved OED1 sense	Meaning and use (changed in italic, new sense in bold)	OED3 date	OED1 sense	All OED1 senses	Old OED1 location of moved sense	OED1 date	Example
	I.		*Possibility*, past of MOTE v.		**I.**				
	1		Permission/possibility in past		**1**				
	a		Was able/permitted to	OE	**a**			a1000	They were achekked bothe two And neyther of hem moste out goo.
	b		In requests	eOE	**b**			c893	The king bisought the quene that he most se his sone.

MUST *v.*¹ in *OED1* and *OED3*

must *v.*¹							
OED3				OED1			
All OED3 senses	OED3 sense (* = new)	Meaning and use (changed in italic, new sense in bold)	OED3 date	OED1 sense	All OED1 senses	OED1 date	Example
location of moved OED1 sense					Old OED1 location of moved sense		
II.		*Necessity, as past and present*			1.-		
2	**2**	Necessity/obligation in past, *orig. corresponding to* MOTE *v.*¹ 2					
a	**a**	Was obliged to (In modern use mostly confined to oblique)	OE	**a**		a1000	How dardanus slew his broder iasius by trayson wherfore he moste departe out of the contre
				3d		1691	He could not bear to be idle. . he must always be doing something.

b*	**Insistent demand in the past (parallel with 4)**	1609	5a		A moment before she had felt that she *must* see him again, once.
c	*Past or historic present used satirically, indignantly*	a1616	**b** 3e	c1386	In 1715, what must he do but run away to join the rebels?
3			**II. 3**		
a (a)	Present equivalent to MOTE v.[1] 2 Am obliged/required to	c1230	**a**	a1300	You must stay a minimum of seven days.
(b)	*With verb of motion understood (OED1 'ellipsis of verb of motion')*	(c1390)	8a		And now I must away.
(c)	*With implied infinitive taken from context (OED1 'ellipsis of infinitive')*	1615	8b-		Indeed, I must not and cannot.
b	*Fixed futurity: am fated to*	a1275	**b**	a1400–50	He must increace: and I muste decreace.
c	*Impersonal use: it is/was necessary (for me) to*	1372	10		For of force me muste obeye the kyng.
d*	**With have and past pple referring to past**	(c1410)			You must have qualified as an RMN, a social worker or a clinical psychologist
6			**c**	1563–83	
a					
b					
c					
2a			**d**	1691	
2c			**e**	1390	

MUST *v.*¹ in *OED1* and *OED3*

| must *v.*¹ | | | | | | | |
| OED3 | | | | OED1 | | | |
All OED3 senses	OED3 location of moved OED1 sense	OED3 sense (* = new) / Meaning and use (changed in italic, new sense in bold)	OED3 date	All OED1 senses / OED1 sense	Old OED1 location of moved sense	OED1 date	Example
4 (a)		Insistent demand: am determined to	(a1393)	**4**		a1425	Why must you continually horse around?
(b)		*With implied infinitive taken from context (OED1 'ellipsis of infinitive')*	1858		8b-		Have your little argy-bargy if you must.
5	5b	*Expressing hypothetical necessity in a conditional*		**5**		c1460	
a		*Present (would be obliged to)*	(c1395)		2b-		If we were not to see but by striking a light to ourselves, we must for ever be in the dark.

Sense	Definition	Date	Ref	Date	Quotation
b	*With have and past pple referring to past*	c1450	5		Yf a beast had touched the mountayne, hit must have bene stoned.
6	*Phrases*				
a	'You must know'	a1450	3c-		
b	'I must say'	1567			
c	'If you must know'	1696			
			6		
8			a	1652	
a			b	1726	
b			c	1733	
9			7	1583	I must not sit here talking.
8c					
7a	Negative expressing prohibition; effectively modifying infinitive	c1510	—		Darling, you mustn't have been angry with me for not writing my love.
b*	**With have and past pple referring to past**	1937	8		
3a(b)			a	c1386	
3a(c)			b	1297	
III.*	*Presumed certainty*		—		
8	Inferred or presumed certainty		6		He must be an old man.
a	*Referring to the present*	c1300	6a-		Coleridge must have earned a substantial sum by these lectures.
b	*With have and past pple referring to past*	(c1395)	6a-		

MUST $v.^1$ in *OED1* and *OED3*

		must $v.^1$						
OED3					**OED1**			
OED3 sense (* = new)	OED3 location of moved OED1 sense	Meaning and use (changed in italic, new sense in bold)	OED3 date		OED1 sense	All OED1 senses	Old OED1 location of moved sense	OED1 date
All OED3 senses									Example
c		*With be, equivalent to 8b*	1722				6c		Whilst the **Roman** Empire was in its Glory. . .its Price must then be very high.
9		*Expressing past inferred certainty, in oblique and virtual oblique narration*	1719				6b		As he thought of this he almost fancied that he must be in a dream.
10*		**Negative use, effectively modifying infinitive**			—				
a*		**With have and past pple referring to past**	1871		—				Whatever Joe told him must not have involved me.

b*	**Referring to present: am certain not to**	1960	–		Manhattanites must not be terribly concerned about loud noise, or they would move away.
IV.*					
11	*Permission* Regional, in questions = may, shall	a1796	– **9** **III.**	a1796	Must I goa oot wi' Jaane, muther?
–			**10**	a1300	
3c					