

Mining terms in the history of English

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A lexical analysis of vocabulary related to boring, drilling and extraction, to ventilation, pipelines and hauling

Introduction

Mining is a broad and complex field. The search for and exploitation of minerals is unceasing in many countries worldwide. Before its collapse towards the close of the 20th century, coal mining in the United Kingdom, for instance, which dates back to Roman antiquity, occurred in various regions of the country, such as Northumberland and Durham, North and South Wales, Yorkshire, Kent, and the East and West Midlands. An essential aim of the present paper is to give an overview of the plethora of mining terms in English which have been coined due to progress and advance in this field over time, ranging from terms associated with boring, drilling and extraction, to ventilation, pipelines and hauling. The Oxford English Dictionary Online (Murray et al., 1884-; henceforth referred to as the OED) and specific sources such as Elsevier's Dictionary of Mining and Mineralogy (Dorian, 1993) constitute valuable tools to identify these types of lexical items. This study relies on the analysis of a comprehensive lexicographical sample of 217 mining terms documented in English.

A specific focus of this paper will be on words inherited from Germanic which have a specific semantic application in the field of mining. In addition, borrowings from German will be taken into account. Since the beginning of mining, Germany has been one of the most important European mining countries. German mining flourished from the late Middle Ages to well into the early modern era on the basis of salt and ore extraction. At the turn of the 20th century, the production of coal and steel enabled Germany to become a world economic power. The present paper shows that

German has provided English with a number of words from this domain.

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Both Elsevier's Dictionary of Mining and Mineralogy and the OED Online served as



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essential tools to identify and collect the various mining terms. The former is a multilingual dictionary, covering English mining terms and their translation equivalents in French, Italian and German. The *OED Online* is searchable online at http://www.oed.com. It consists of the second edition from 1989, the complete texts of the *OED Additions Series* from 1993 and 1997, and a significant number of revised and new dictionary entries which are part of the third edition.

A specific search option made it possible to identify all the lexical items which represent mining terms in the electronic *OED*: entries containing 'Mining' in the field 'Subject'. The list of mining terms retrieved in this manner consists of 1.977 lexical items. Of these, a considerable number are technical terms referring to types of minerals. An example is seligmannite, a variety of sulphide, which was first recorded in English in 1902. It was formed from the name of the German mineral collector Gustav Seligmann and the suffix -ite (see OED). Terms representing the names of minerals were excluded since their investigation would go far beyond the scope of the present analysis. Instead, the focus is on an important sample of mining terms which have been considered little, if at all, in previous surveys. The study sets out to examine the multitude of mining terms which have been inherited from Germanic. Borrowings from German recorded in Elsevier's Dictionary of Mining and Mineralogy and/or the OED have also been taken into account.

A word was classified as a borrowing from German when German constitutes the *immediate*

donor language. *Reef*, which refers to '[a] lode or vein of quartz, esp[ecially] one which yields gold' (*OED*) in (originally Australian) English, can be adduced as an example. The term is categorized as a German borrowing in this study, notwithstanding the fact that its Middle Low German equivalent *rif* with its spelling variant *ref* ultimately dates back to Scandinavian. The *OED* also records possible German borrowings, i.e. lexical items which may or may not be of German origin. An example is *deck*, which might go back to Flemish or Low German. Its usage as a mining term is illustrated by an 1888 *OED* example:

1888 G. C. Greenwell Gloss. Terms Coal Trade Northumberland & Durham (ed. 3) 31 Deck, the platform of a cage upon which the tubs stand when being drawn up or lowered down the pit.

Possible German borrowings such as *deck* were also examined in the present study. Figure 1 provides an overview of the chronological distribution of the variety of mining terms in the history of English.

Number of mining terms

As shown in Figure 1, only three mining terms were recorded in English before 1001. From 1201 to 1600 their number increased slightly. In the 17th and 18th centuries, a stronger increase can be seen, which reached its peak in the 19th century (113 lexical items, making up 52.3% of the mining terms investigated in the present study).

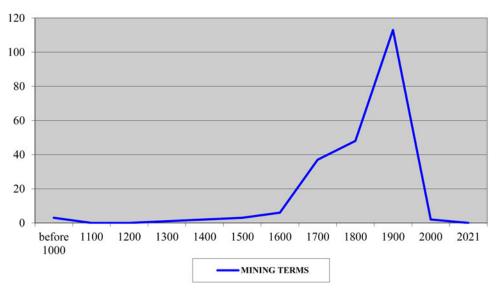


Figure 1. Distribution of mining terms in the history of English

The sharp increase in mining terms since 1801 must be interpreted against the historical background of industrialization over the course of the 19th century. Industrialization led to essential progress and advance in mining technologies in countries such as Great Britain and Germany (see also Tenfelde et al., 2016), and also resulted in the coining of new words in the field. As will be seen, some German borrowings from the field of mining also found their way into the English language at that time. In the 20th century, however, there was a sharp decrease in the number of mining terms: only two were documented in English after 1901. This strong decline might have been expected, given that the exploitation of minerals, especially coal mining, ceased in the United Kingdom at the end of the 20th century.

The various mining terms under consideration can be divided into nine semantic fields. In the following list they are presented in ascending order, depending on the proportion of lexical items in each domain. Terms marked by an asterisk after their first attested usage represent possible German borrowings.

- (1) Miscellaneous (2 lexical items, i.e. 0.9%) *ten*, n. (1590); *tide*, n. (1495).
- (2) Mining occurrences (3 lexical items, i.e. 1.4%)
- (2.1) **Nouns**

black damp, n. (1736); white damp, n. (1817).

- (2.2) Adjective relating to mining occurrences dead, adj. (1867).
- (3) Mining charges and tributes (4 lexical items, i.e. 1.9%)

lot, n. (1630); shorts, n. (1886); pick-money, n. (1888)*; pick-pence, n. (1888)*.

(4) Persons engaged in mining (4 lexical items, i.e. 1.8%)

foal, n. (1770–4); first man, n. (1883); rope rider, n. (1884); timber-leader, n. (1891).

(5) Mining constructions and buildings (13 lexical items, i.e. 6.0%)

coe, n. (1653); weather door, n. (1753); stull, n. (1778)*; rose cistern, n. (1778); water whimsey, n. (1807); star pulley, n. (1836); crib, n. (1839); ring crib, n. (1849); jig, n. (1866)*; deck, n. (1888)*; man-car, n. (1890); kettle, n. (1894); dam, n. (not dated).

(6) Mining products (30 lexical items, i.e. 13.8%)

(6.1) Nouns

crop, n. (circa 1000); foot coal, n. (1665); weed, n. (1667); quartz, n. (1676); schlich, n. (1677); slick, n. (1683); table-bat, n. (1712); slime, n. (1758); float, n. (1778); gold amalgam, n. (1795); coal brass, n. (1809); float, n. (1814); bone, n. (1817); blossom, n. (1819); rusty coal, n. (1825); eyes, n. (1839); staple, n. (1839); sand, n. (1849); best work, n. (1852); sod, n. (1854)*; swell, n. (1855); saddle, n. (1860); clump, n. (1863) *; wire silver, n. (1867); gruff, n. (1873)*; stump, n. (1881)*; stock, n. (1882); bean metal, n. (1892).

(6.2) Adjectives relating to features of mining products

whole, adj. (1753); free-milling, adj. (1872).

(7) Mining methods and activities (42 lexical items, i.e. 19.4%)

(7.1) **Nouns**

long-wall, n. (1820); wide work, n. (1831); flint-mill, n. (1852); shot, n. (1881); mid-workings, n. (1883).

(7.2) Verbs relating to mining methods and activities

to bore, v. (circa 1225); to drive, v. (circa 1485); to wash, v. (1543); to lie (with) ridge and furrow, v. (1649); to twitch, v. (1704); to heave, v. (1728); to underlay, v. (1728); to leap, v. (1747); to rise, v. (1747); to start, v. (1758); to strike, v. (1778); to underlie, v. (1778); to set, v. (1789); to stem, v. (1791); to cope, n. (1802); to rock, v. (1825); to hole, v. (1829); to shoot, v. (1830-60); to stack, v. (1832)*; to work home, v. (1835); to strip, v. (1839); to throw, v. (1843); to creep, v. (1849); to eat out, v. (1849); to make, v. (1850); to salt, v. (1852); to ride, v. (1854); to wring out, v. (1855); to deck, v. (1883)*; to sit, v. (1883); to split, v. (1883); to wind, v. (1883); to fish, v. (1888); to hold down (a claim), v. (1888); to weight, v. (1892); draw, v. (not dated).

(7.3) Adverb relating to mining methods and activities

wide, adv. (1886).

(8) Mining equipment (48 lexical items, i.e. 22.1%)

dish, n. (circa 700); keeve/kive, n. (circa 1000); snuff, n. (1382)*; tram, n. (1517)*; buddle, n. (1531–2)*; retort, n. (1634); stemple, n. (1653)*; kibble, n. (1671); fire, n. (1672); rack, n. (1671)*; horse

arm, n. (1688); stick, n. (1708); fire pan, n. (1730); dog, n. (1747)*; poll-pick/pole-pick, n. (1747); rudder, n. (1747); sill, n. (1747); head, n. (1758); spire, n. (1775); fathom, n. (1778); spring dart, n. (1781); finger grip, n. (1820); cow, n. (1834); lock timber, n. (1836); needle, n. (1838); nail, n. (1839); reed, n. (1848); tub, n. (1853); skep, n. (1860); slipe, n. (1860)*; straw, n. (1860); feather, n. (1865); harrow, n. (1869); sail, n. (1874); strip, n. (1875)*; moss-box, n. (1877); trommel, n. (1877); trough, n. (1877); bridle-chain, n. (1881); mote, n. (1881); wheel-tree, n. (1882); midge, n. (1883); monkey, n. (1883)*; wax, n. (1883); top, n. (1894); ball mill, n. (1895); coal plough, n. (1946); mole, n. (1960)*.

(9) Mineral deposits and structures (71 lexical items, i.e. 32.7%)

(9.1) Nouns

ground, n. (circa 1400); rib, n. (circa 1500); roof, n. (1575); rake, n. (circa 1584); string, n. (1603); lip, n. (1608); bench, n. (1610); day, n. (1620); pipe, n. (1635); drift, n. (1653); rider, n. (1653); stool, n. (1653); stall, n. (1665)*; cheek, n. (1669); room, n. (1670); hatch, n. (1671); shamble, n. (1671); body, n. (1672); grass, n. (1672); sump, n. (1633)*; fang/windfang, n. (about 1661); shelf, n. (1671)*; scrin, n. (might have been first recorded in about 1675)*; stulm, n. (1693)*; board, n. (1708); stock, n. (1709); wall, n. (1728); blast-hole, n. (1747); dot, n. (1747)*; flat, n. (1747); gate, n. (1747); leap, n. (1747); lid, n. (1747); self, n. (1747); studdle, n. (1758); loch, n. (1767)*; web, n. (1767); road, n. (1770); sollar, n. (1778); stream, n. (1778); crow, n. (used attributively, as in crow bed, crow coal) (1789); dike/dyke, n. (1789); back, n. (1807); stock-work, n. (1808); girdle, n. (1819); side of work, n. (1820); burden/ burthen, n. (1825); stook, n. (1826-30)*; shaft, n. (1834); mothergate, n. (1839); breast, n. (1848); cleat, n. (1849); bottom, n. (1852); reef, n. (1852); seat, n. (1860); pick-hole, n. (1861)*; end, n. (1865); main, n. (1867); goldsmith's window, n. (1880); monkey, n. (1880)*; breast, n. (1882); fat, n. (1883); token, n. (1883); percussion figure, n. (1890)*; stone-heading, n. (1892).

(9.2) Prepositional phrase

to the deep, n. phr. (1881).

(9.3) Adjectives relating to mineral deposits and structures

fast, adj. (attributively in fast country, fast ground) (1671); quick, adj. (1676); strong, adj. (1684); steep, n. (1883); open-pit, adj. (1892).

Some mining terms cannot be clearly divided into a specific field. An example is *ten*, which has been used as a measuring unit in coal mining since 1590, as in:

1894 R. O. HESLOP *Northumberland Words Ten*, a measure of coals upon which the lessor's rent or royalty is paid. In the seventeenth century the term meant ten score bolls, barrows, or corves of coal. (*OED*)

We also find terms for occurrences in a mine, such as *black damp*, a type of poisonous exhalation. There are also lexical items specifying charges and tributes, such as *lot*, which is now mostly restricted to historical contexts related to the mining of lead in Derbyshire, designating 'a royalty paid to the owner of a mine, consisting of a proportion of the total ore extracted' (*OED*), e.g.:

2001 I. BLANCHARD *Mining, Metall. & Minting in Middle Ages* II. viii. 812 The right to collect 'lot', which represented a twelfth or thirteenth of production in the [Wirksworth] wapentake and Hartington respectively. (*OED*)

Some terms for persons engaged in mining can also be found. An example is *foal*, which has been recorded in English since the 18th century:

1835 S. OLIVER *Rambles Northumberland* i. 41 Where a youth is too weak to put the tram by himself, he engages a junior assistant, who is called the foal. (*OED*)

In addition, there are some terms for varieties of constructions and buildings. An example is *coe*, also spelt *cow* in Scottish English (see *OED*). The word was first documented in the *OED* in 1653 as a possible borrowing from Low German, denoting '[a] little hut built over a mine-shaft, as a protection to the shaft, or as a repository for ore, tools, etc.' (*OED*). From the *OED* it emerges that the last example reflecting its usage in English dates from 1891:

1890 A Correspondent says: 'The word is still in use among Derbyshire lead-miners'.

Its German source term *Kaue* was subject to a semantic development. In present-day German, it can refer to a type of room or chamber at the pithead which functions as a restroom or changing area (see *Duden Online*. Bibliographisches Institut, 2022). This meaning, however, has not yet been recorded for the English term *coe* in the dictionaries consulted.

The list of *OED* items also contains some terms for products obtained in mining. Examples are *quartz*, *gold amalgam*, *coal brass* and *wire silver*. Terms related to mining methods and activities make up the third largest group in the sample of words investigated in this study. An example is *wide work*, now a rare term in coal mining for 'a system of room and pillar mining . . . in which the passages are significantly wider than the pillars separating them; (also) mining done according to this system' (*OED*). It is now mostly confined to historical contexts in English, as in:

1993 C. Baylies *Hist. Yorks. Miners* 182 The long-wall system involved the working of a long or wide face. In some cases it was distinguished by the term wide work as opposed to the narrow work of the pillar system. (*OED*)

There are also some verbs relating to mining methods and activities, such as *to bore*. Most of them were first recorded in a more general sense before assuming specific uses in the field of mining. Examples are *to shoot* and *to wind*. The former has been recorded as a mining term since 1830, meaning 'to blast' (*OED*), and the latter has been documented since 1883 in the sense of '[t]o hoist (coal, etc.) to the surface by means of a *winding-engine*' (*OED*).

Terms referring to mining equipment represent the second largest group of lexical items. Monkey and the direct loan trommel serve as examples. According to the OED, the ultimate origin of monkey is not clear. It might perhaps be coined from the noun monk or represent an adaptation of the Middle French form monne, which ultimately reflects the Arabic maymūn 'monkey'. It may also be related to the unattested form *moneke, the name of a character in the Middle Low German text Reynard the Fox, where it refers to the son of Martin the Ape (see OED). Since about 1883, monkey has been recorded in a specific sense in mining, referring to '[a] catch or ratched mechanism which allows a wagon or tub to travel up an incline but prevents it from rolling back down' (OED), as in:

1888 W. E. Nicholson *Gloss. Terms Coal Trade* (E.D.D.) *Monkey*, an arrangement placed between the rails at the head of an incline, which allows the wagons to pass over it in going up, but prevents them from running back. (*OED*)

Trommel reflects the German Trommel 'drum'. The word shows a specialized semantic application in English, where it refers to '[a] rotating

cylindrical sieve or buddle used for washing and sizing ores' (*OED*).

Most mining terms (71 lexical items, i.e. 32.7%) specify mineral deposits and structures. The majority of them were initially recorded in a general meaning in English before showing a more specific use in the field of mining. Among them are several terms originally referring to everyday matters and objects, such as room, body and seat. Room, for instance, has been documented since the Old English period for a type of place serving as a retreat (see OED). The word first manifested a use in mining in 1670, designating '[a] passage or space for working in a coal mine, esp[ecially] one left between pillars' (OED). From the OED it becomes clear that this meaning has its origins in Scottish English. The earliest usage example of the word available in the OED includes the spelling variant rowme:

1670 Sheriffhall Coal Acct. Bks. in Dict. Older Sc. Tongue at Roum [For] reding of his rowme with 2 beirers at 4 d. a day.

Similarly, *body* originated in Old English. It might be related to the Old High German form *botah*, literally 'body', 'corpse', with its various spelling forms, such as *boteh* and *botec* (see *OED*). Since 1672, *body* has been documented in the meaning of '[a] deposit (of ore, coal, etc.) suitable for mining' (*OED*), as in:

1814 H. M. Brackenridge *Views Louisiana* II. vii. 147 What is called a discovery, by those engaged in working the mines, is, when any one happens upon an extensive body of ore. (*OED*)

1998 M. Dolipski et al. in R. K. Singhal *Mine Planning & Equipm. Select. 1998* 581/2 The load level and its run are conditioned by . . . the state of stresses and strain in the body of coal being mined. *(OED)*

As to *seat*, the word was borrowed from the Old Norse *sæti* in about 1175, referring to the activity or way of sitting (see *OED*). Since 1860, it has been used to specify the bottom of a mine, as is illustrated in the *OED*:

1860 Eng. & Foreign Mining Gloss. (new ed.) (Derbyshire Terms) Seat, or Sole, the floor or bottom of the mine.

The field of mineral deposits and structures also contains some possible borrowings from German. An example is *stulm*, which was first attested in 1693 in English. It might have been borrowed from the

German *Stolln* in the sense of '[a]n adit or level in a mine' (*OED*). The German spelling variant *Stollen* was adopted in another meaning at the beginning of the 20th century, specifying a type of cake (see also the relevant discussion in Schultz, 2016: 83), as in:

1997 *Australian* (Nexis) 17 Mar. 13 She still eats black bread and liverwurst for breakfast. Pfefferkuchen and Stollen at Christmas. (*OED*)

Further examples which may have been influenced by German are *sump* and *loch*. In its general sense '[a] marsh, swamp, morass' (*OED*), the former might either be adopted from the Dutch *somp/sump* or the Middle Low German *sump*. As a mining term, it might have been influenced by a specific use of the German word *Sumpf* 'pit', 'excavation' (see *OED*). *Loch*, now a rare term for '[a] cavity in a rock or a mineral vein' (*OED*), might perhaps be related to the German *Loch* 'hole'.

In addition, the list of mining terms includes some adjectives which describe features of mineral deposits and structures. All of them first showed more general meanings in English before assuming specialized senses in mining. Fast and strong can serve as examples. Fast can be used attributively in fast country or fast ground, both of which have become rare terms in present-day English for 'solid or undisturbed rock lying underground; bedrock' (OED). Strong has been recorded in mining contexts since 1684. The OED defines it as follows: '[o]f a vein, mine, or its deposits: likely to be very productive; prolific'.

Conclusion

As has turned out from this study, the number of mining terms in English strongly increased from the 17th century, reaching its peak in the 19th century. This tendency is closely related to industrialization, which led to a real boost in mining technology. The advance in this field also required the coining of new words for innovative mining methods, activities and equipment which were first recorded at that time.

After the 19th century, the number of mining terms fell drastically. This is not surprising, taking into account the strong reduction of the exploitation of minerals in countries including Great Britain. For the 21st century, no terms from this area have so far been recorded in the *OED*. As has been seen, a number of

mining terms are now confined to historical contexts in English, i.e. they occur in contexts somehow related to the past, such as the mining of lead in Derbyshire, which collapsed towards the end of the 20th century.

A characteristic of mining vocabulary is its great diversity, ranging from mining charges, tributes and persons engaged in mining, to mining products, equipment, methods and activities. The highest proportion of mining terms is related to mineral deposits and structures. The vocabulary investigated encompasses a relatively high number of words inherited from Germanic, which were first recorded in a more general meaning before they came to be used in a more specific sense in mining contexts. The field of mining was also influenced by German. Among the borrowed lexical items in this domain, a number of German-derived terms were borrowed in a specific sense, in order to fill a semantic gap in English. A number of mining terms of German provenance were adopted in the age of industrialization in the 19th century, when mining in Germany flourished due to progress in this field.

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