Objects of Worth, Objects of Desire: Toward *A Dictionary of Traded Goods and Commodities, 1550–1800*

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Résumé

Les termes spécialisés désuets qui intéressent les historiens de l'économie et de la culture ne figurent pas suffisamment dans les grands dictionnaires, dont les sources sont principalement littéraires et dont les brèves citations offertes en exemples sont prises hors contexte. Un projet de l'Université de Wolverhampton (Angleterre) vise à rectifier la situation en produisant un glossaire des termes relatifs aux produits en usage entre 1550 et 1800. Cet article ne fait pas l'historique du projet, mais aborde certaines questions à régler. Ces dernières sont examinées en fonction de trois principes qui sous-tendent le projet : l'utilisation de nombreuses sources qui permettent de rattacher le mot et l'objet. Une annexe décrit en détail l'infrastructure informatique du projet et donne des exemples d'unités lexicales.

Abstract

Obsolete specialist vocabularies of interest to economic and cultural historians are ill served by the major dictionaries, whose sources are largely literary and whose brief illustrative quotations are taken out of context. A project at the University of Wolverhampton, England, is attempting in part to rectify this deficiency by producing a specialized dictionary of commodity terms, 1550–1800. This paper is concerned not with the project's history, but with some of the issues that it needs to address. These are discussed within the framework of the three principles that underpin the project's work: the use of a wide range of sources accessible between the word and the object. An appendix details the computing infrastructure and gives some examples of possible dictionary entries.

In the introduction to his great dictionary, Samuel Johnson presents a jaundiced view of the lexicographer's task, describing himself as "the slave of science, the pioneer of literature, doomed only to remove rubbish and clear obstructions from the paths of Learning and Genius."[1] At the same time he affords some seductive glimpses of the challenges of undertaking such a work. Since his first edition in 1755, there has been a steady trickle of rival works, some like *The Oxford English Dictionary* (*OED*) or *The Webster's,* aiming to cover the whole English language (which Johnson never claimed to do), others tackling the vocabulary of arcane specialisms.[2] Despite this cornucopia of aids to understanding words, many remain inadequately defined, and some not at all. The recent edition of the *OED,* published in 1989 and only the second in its distinguished history, has done little to help over-obsolete vocabularies. Most of the new material relates either to words not in existence in 1933 when the first edition was finally published or to those for which new meanings have since evolved. There still remains a need for other dictionaries of specialist vocabularies offering more than mere glossaries while in no way attempting to emulate the all-embracing major works. There are many aspects of human endeavour whose vocabularies have been little investigated, many words as yet undefined and many more defined only briefly. One area particularly ill served is historic trade.

The study of trade is not just a narrow branch of economic history concerned with dry statistics. It offers the material and cultural historians a look at the objects they wish to study, as it were, through the other end of the telescope. What ordinary people desired 300 years ago, what they produced along with the tools they needed to do so, and the necessities of life, were all commodities of trade in some part of society and at some time. To view an object only at the point of production or at the point of use

is to miss a rich opportunity to appreciate its place and purpose in people's lives. An understanding of the vocabulary of trade, even of such unlikely commodities as *arsenic,* has much to tell the social historian. A common synonym for arsenic used in the retail trade was *rats bane,* indicating why ordinary people bought it. As a consumable it is not found listed in domestic probate inventories, but the frequency with which it appears in the stock of retailers suggests it attracted many customers. Looking at arsenic as a traded commodity reveals that it was not just a chemical in the laboratory or a poison in the potential murderer's pocket, but an everyday item to be kept alongside the mousetraps and rat cages.

Studies of material culture in the early modern period have paid little attention to the different contemporary vocabularies used in the life cycle of artifacts and commodities as they pass from production, through trade, to consumption. Yet without this, an interdisciplinary approach to material culture, through both the study of surviving artifacts and the perusal of contemporary written sources, becomes a mine field of misunderstandings. It was to remedy the lack of this essential tool of scholarship that a project was set up in 1988 at the University of Wolverhampton, England, funded by the Leverhulme Trust. The aim of "The Dictionary Project" is to produce *A Dictionary of Traded Goods and Commodities, 1550–1800.*[3] This work focuses specifically on trade in England and Wales, but it inevitably comprehends most artifacts and consumables found in all the English speaking territories bordering the Atlantic.

The *Dictionary* will be both narrower and broader in scope than the all-embracing dictionaries like the *OED* or *Webster's;* narrower because it addresses a particular vocabulary, and broader because of the way it approaches a wide spectrum of sources. It will also offer more than a specialist glossary in contextualizing each commodity term and in discussing the relationship between the word and the object.

There is a particular need for a dictionary of this sort for the period 1550 to 1800 in that there was an explosion in the number of commodities available and an associated confusion in the vocabulary. This was due in part to the exploration of the globe and the increased availability of exotic wares from the Far East and from the New World. The *Books of Rates* illustrate the problems that arose from this rapid expansion. These books listing the customable goods and their values or rates of duty were probably compiled in some fashion from as early as 1303. A uniform national system only emerged after 1536 when the new imports and, later, the products of developing domestic industries, made imperative a systematic approach to trade if royal revenues were not to suffer. Within the next 20 years the *Books of Rates* became a printed handbook of the official valuations of imports and exports, which was reissued, with amendments, several times. Successive editions act as an index of how the customs service kept track of the plethora of new wares. The book of 1507 listed some 300 commodities; by 1545, and the first printed book, there were 790 and by 1558 some 1100.[4] By 1604 the number in the rate books had risen still further and so it continued in the next two major revisions of 1660 and 1784, when there were at least 1800 commodities.

While customs officials were struggling with the new commodities, society was coming to terms with the implications of new trading horizons. To some the new possibilities were clearly a threat; to others they were an opportunity. It was in the context of this debate that an anonymous writer, Dives Pragmaticus, produced his polemic verses in 1563 lauding trade, claiming it as "a good thing," a delight to "God and man."

Myne occupyeng is, by sea and by land,
As you shal hereafter well understand.
Al Christen and Heathen, of my marchaundyse bye,
And I agayne of theirs, or els I shoud lye:

Now truly for to bye, and truly to sell,
Is a good thyng (as I haue heard tell)
Yf it be used accordyng to ryght,
Both God and man, in it doeth delyght.[5]

Dives Pragmaticus's list of goods and commodities – many imported – was only about half the length of the 1558 *Book of Rates.* Nevertheless it included a wide range of items, some presented as merely useful, but many more as desirable to all levels of society. His perspective on the trading world is different from the *Book of Rates,* even though both were produced in response to the same challenge and each presented what was no more than just a list of traded commodities. The limited overlap between these two contemporary sources produced with different aims in mind highlights the importance of studying a document in its entirety not just its component parts – a point that we will return to later.

Newly discovered imported drugs created a particular problem for anyone concerned with trade. Dives Pragmaticus made little attempt at exhaustive itemization, including only "Genoa Treacle the plague to prevent," "powders to make you sleep" and some well-established goods like "Muske, Civit and Camphere." He was more specific about other categories of goods that had perhaps not yet felt the winds of change, with seven examples of confectionery and ten of grocery.[6] From the *Book of Rates* for 1582 it is almost impossible to extract a precise number of imported drugs, but it was probably about 195. The compilers of the book appear to have had some difficulty in handling some of the new and unfamiliar commodities. Unlike the later books in which drugs were listed together under a generic title, in 1582 they were scattered alphabetically throughout the list. A number were duplicated, sometimes with different values, for example *Rhabarbarum* at 5s and *Rubarbe* at 13s 4d. A number of items can no longer be identified with any certainty and were probably misspelled duplicates, like *stinice* and *sincerci,* both valued at 3s 4d and perhaps variant spellings for *scinci,* a small lizard imported for apothecarial use. Eighty years later in 1660, most of these anomalies had been cleared up and the number of drugs had risen to about 300. By 1784, the number of imported drugs was nearly double the total number of all dutiable commodities at the time of the first surviving *Book of Rates* in 1507, though the full extent of the increase is obscured by entries like *Oil, vizt. Chemical Oils not otherwise enumerated,* and by the disappearance of some bizarre items like *trochestore de vipianum.*

A further complicating factor was an increasing interest in scientific method and in classification, both of which made inroads into traditional nomenclature. The speed of modernization varied considerably and some terms resisted change throughout the period, particularly those for chemicals with well-established industrial applications. The term *copperas* illustrates both the confusion that arose from limited chemical understanding, but extensive industrial use, and the later resistance to change. The term originated in the ancient world and etymologically it belonged properly to copper sulphate, later commonly to be called *blue copperas.* However, the term was often applied to ferrous sulphate, either without a descriptor or as *green copperas.* Probably the confusion arose in part because the raw materials used to manufacture the two sorts of copperas were similar in appearance and shared a common name, i.e., copper pyrites and iron pyrites. The confusion led to some gross misconceptions about the chemical processes involved and a belief that copperas could somehow convert the one metal to the other. Later a third chemical, zinc sulphate, was also given the name *copperas,* though invariably with the descriptor "white." The three were still listed in the *Book of Rates* for 1784, although there was by then some understanding of their chemical composition. Today the term applies exclusively to ferrous sulphate and the other two chemicals are referred to by their chemical names.

In other areas a vocabulary was being developed that was appropriate to the chemical theories of the time and more akin to the modern system. The patents relating to the manufacture of alkali, used to make soap and glass, illustrate this change. In the late seventeenth century, patentees were concerned not so much to improve the method of extraction as to establish sole rights to potentially profitable raw materials. The first patents moved away from the traditional wood and broom to the more effective barilla and kelp, but later ones concerned some quite unlikely materials like "potatoes, yams or yamleas, tobacco stalks and other vegitables [*sic*]." During the eighteenth century it became accepted that alkalis could be obtained from a variety of materials, so attention turned toward establishing more efficient methods of extraction. This led first to a more scientific vocabulary using terms like *alcalizote, phlogiston* and *salts,* and then to patents resembling modern chemical specifications. Thus the whole vocabulary of the extraction and manufacture of alkalis changed with the technology.[7]

This gradual development of chemical method, mirrored by an increasingly precise chemical vocabulary, was matched by developing systems of classification, particularly of plants. The doctrine of signatures that postulated a relationship between the physical characteristics of the plant and its use in medicine became unacceptable, as did belief in the influence of the stars. But the vocabulary associated with these doctrines was slow to disappear. Culpepper, whose ideas were admittedly already somewhat out of date in the mid-seventeenth century, could still write

> *the celandine or pilewort ... is under the dominion of Mars, and behold here another verification of the learning of the ancients, viz. that the virtue of an herb may be known by its signature, as plainly appears in this: for*

if you dig up the root of it you shall perceive the perfect image of the disease which they commonly call the piles. It is certain by good experience that the decoction of the leaves and roots doth wonderfully help piles and haemorrhoides.[8]

His works were hugely popular at the time and remain in print to this day. Fortunately the dissemination of botanical knowledge did not depend only on the publication of herbals based on obsolescent ideas. Starting well before Culpepper, herbalists like Gerard and Parkinson attempted to establish a systematic nomenclature recognized by all. Gerard's description of the sunflower illustrates well the scale of the problem and explains why it took so long to unravel this confused vocabulary.

The Flower of the Sun, or the Marigold of Peru ... The flour of the sun is called in Latin flos solis ... some have called it Corona solis and Sol Indianus, the Indian Sun flower; others Chrysanthemum Peruvianum or Golden floure of Peru: in English the floure of the sun or the Sun floure.[9]

It is a goal not yet definitively achieved, but a landmark was passed with the publication of Linnaeus's seminal works in 1753–54. As a result, each plant was given both a generic and a specific name based on an orderly system of classification.[10]

Industry and trade also underwent a metamorphosis that was reflected in a radical change in their vocabularies. A number of terms relating to the manufacture and use of pewter became obsolete as the more desirable earthenware, tin plate and brass took over as the most common materials in the kitchen. Terms like *lay pewter, counterfeit* and even *latten* disappeared, to be replaced by the new *Delft, stoneware* and *white ware,* by tin plate often called *tinned* or *tinning* ware or just *tin,* and by new copper alloys like *bright ware, Princes metal* and *Gun metal.* A new tin alloy, *Britannia metal,* remedied some of the defects of pewter and for a while became fashionable, though it was perhaps never a serious competitor to *silver plate.* The term *spelter* arrived only to be replaced by the modern term *zinc* as a result of increased understanding.[11] The probate inventories of tradesmen often show the clash between new ideas and old. For example, on the one hand apothecary inventories list fairly modern-sounding commodities like *pills, chemical oils* and *Glauber Salts;* on the other, old-fashioned ingredients like *the four cold seeds* or the many *boles* or *earths,* of which the only one surviving today is kaolin, are included.

Contemporaries were aware of the changing vocabulary, though some were not anxious to familiarize themselves with it. Samuel Johnson justified his failings but made little effort to conceal his disinterest.

That many terms of art and manufacture are omitted, must be frankly acknowledged: ... I could not visit caverns to learn the miner's language, nor ... visit the ware houses of merchants, and shops of artificers, to gain the names of wares, tools and operations, of which no mention is found in books; ... Of the laborious and mercantile part of the people, the diction is in a great measure casual and mutable: many of their terms are formed for some temporary or local convenience, and though current at certain times and places, are in others utterly unknown.[12]

His attitude suggests that the modern lexicographer will find little help with industrial and scientific vocabularies in early dictionaries.

It was not only new commodities, new classifications and new technologies that altered vocabularies over the period. A new approach to the mechanics of the market created an interest in how persuasive language could increase sales. The concept was expressed by Fuller in the mid-sixteenth century, well before consumerism is accepted to have become a driving force.

Expect not that I should reckon up their several names, because daily increasing, and many of them binominous, as which, when they began to tire in sale, are quickened with a new name. A pretty pleasing name, complying with the buyers fancy, much befriendeth a stuff in the sale thereof.[13]

Good selling names were found everywhere – *semperternum, none so pretty* and *bright ware* to mention but three. Many of these terms were long lived and may well have been applied to different commodities at different times. What Fuller observed may be just as true in reverse. Traders may have been as reluctant to lose a good name because the product had gone out of fashion as they were to lose a good product when the name became stale.

Modern dictionaries like the *OED* address the development of each word, tracing changes in meaning over time, but they suffer from some of Johnson's attitudes and the changes discussed above. Because they draw on largely literary sources many of the terms of trade do not appear, or appear so occasionally or in such

unhelpful ways that only tentative definitions can be offered. The sources suffer from the further defect that they do not address questions that the students of trade may well ask. For example, the *OED* informs us that *alamode* was "a thin black glossy silk"; the associated quotations suggest that it was introduced in the second half of the seventeenth century and that it was used for hoods and hat bands. But this leaves a whole host of questions unanswered. Why did its producer choose to give it a French name? Was it really so fashionable as its name suggests, or was the name intended to persuade a wider market of a spurious quality? Was it, in fact, the equivalent of an expensive Liberty silk today or of a polyester which, to the ill-informed, was nearly as good? Was it widely available or was it only available in London? And, having bought it, was it just used for hoods and hat bands? Was it really always black? And if so, was it produced to satisfy the market for mourning clothes? And if that is so, does it imply that the market in death was subject to fashion and to the possibilities of persuasion? Was even the market for mourning clothes open to superfluous consumption?

In this way a single, not very important item of trade highlights a debate that continues unresolved about the philosophy behind the creation of *A Dictionary of Traded Goods and Commodities*. Some of the questions just posed relate to the fabric and some to the words. Johnson, who did so much to clarify thinking about the function of a dictionary, also pondered this philosophical dilemma. In his preface he wrote, "I am not yet so lost in lexicography, as to forget that words are the daughters of earth, and that things are the sons of heaven."

The debate is not academic; any decision on emphasis has practical implications for editorial policy. A dictionary of words would be produced in response to a different set of questions from a dictionary of things and the reader would, therefore, be presented with a different balance of information. Braudel develops this theme, though from a rather different angle.

> *The advice of Henri Berr and Lucien Febvre was that the key words of the vocabulary of history should only be used after asking a number of questions. Where do they come from? How have they come down to us? Are they likely to mislead us?*[14]

Although he is thinking of abstractions like "capitalism," Braudel's comment is no less pertinent to the vocabulary of trade. The point can be illustrated by some examples. Take the terms *saftra-cundies, izops, timber stuff* and *St Martin's Ware*. Each was used in only a limited section of the chain that ran from producer to consumer, although each commodity must have been found along the whole length. This characteristic, found in each of them, suggests that commodity terms have the capacity to mislead and warns against incautious judgments about availability. Saftra-cundies was a native term for a native cloth from India. Once the use of many Indian fabrics, including this one, was prohibited by statute in 1701, they were only imported for re-export.[15] Before that they must have been on sale; otherwise they could not have been perceived as a threat to other interests. Saftra-cundies have not been noted in any retail shop, nor in any contemporary document describing furnishings or dress, even though the fabric must have been used, presumably under a different name as yet unidentified. However, they have been noted in the stock of London exporters.[16] The word izops presents similar problems. Izops were made in large quantities by Darby's of Coalbrookdale, Shropshire, and sold under that name to their customers, including important tradesmen of Bristol.[17] But no goods called izops went down the river Severn, though Darby's ironware can be identified in the Port Books, and only one retail tradesman has been noted as selling them under that name. On the other hand timber stuff was a term exclusive to the Port Books and other similar records, and probably nobody produced or used anything so called. It was a term fabricated entirely for the convenience of carriers. St Martin's Ware was similar in some respects. Carriers, wholesalers and retailers used the term, but no artisans made St Martin's Ware; they made fans, or masks or hoods, and it was under these names that the consumer bought them.

George Bernard Shaw's remark that "England and America are two countries divided by a common language"[18] strikes a different warning note for a dictionary of words, by suggesting that an American might say the same thing as an Englander, but mean something rather different. This has not been seen as a problem for transatlantic trade in the early modern period, indeed rather the reverse point was made by Breen in his work on American society before the Revolution.[19] His emphasis on the common stock of commodities and commodity terms is supported by the probate inventory of the Canadian merchant, Caspar Wollenhaupt, with a vocabulary strikingly similar to that of contemporary English trades-

men,[20] and by the numerous surviving commercial records and travellers' diaries.[21] The similarity is to be expected, since restrictions on colonial trade virtually gave British merchants a monopoly in the American market. However, the journals of Jabez Fisher, a Quaker merchant from Philadelphia, suggest the dangers of assuming too much. His letters show his awareness of the requirements of his own market, some of which had to be specifically catered to by the British manufacturer.[22] Although the terms he used were identical to those used in English shops, the goods were apparently not quite the same. Other instances of well-known English goods being modified for the transatlantic market are noted by Montgomery.[23]

A related dilemma in the home country arises over generic terms used in trade. It is only rarely that the varieties subsumed under a generic heading are acknowledged by descriptors, and even then the practice may be selectively applied. For example the term *stuffs* described many light, fancy fabrics, often of mixed fibres, and usually dyed or printed. Most stuffs had distinctive names like *shalloon, prunella, calamanco* and *camblet,* but the generic term "stuffs" is found in most mercers' shops and among dress and furnishing materials in many domestic records. Two towns, Norwich in Norfolk and Kidderminster on the river Severn, specialized in their production. Each had its own distinctive style and each had both regional and national markets. It was only in the context of the national market that a descriptor defining origin was likely to have been applied. So the term *Norwich stuffs* is found most commonly outside Norfolk, and the term *Kidderminster stuffs* outside the Severn valley. It is probably safe to infer that the term stuffs means Norwich stuffs within Norfolk and Kidderminster stuffs within the Severn valley, and a scrutiny of value should help to confirm this diagnosis since the former were of better quality. The names of several other fabrics present similar problems: *plains, kerseys, fustians* and the ubiquitous *cloth.* A single reference in one merchant's business records suggests that even for such a minor item as the pen knife there were regional differences in type.[24]

The problem is even more acute with a term like *shoes.* Shoemakers are found in every town and in many smaller communities. Contrary to the received wisdom that such common artifacts were generally made locally for local use, the Gloucester Port Books show that there was a broader market for shoes made in areas not hitherto noted for specialist production.[25] The vocabulary is extremely limited, regardless of what source is searched. Shoes are just shoes wherever made and wherever sold, and the only distinction noted has been between those for men, women or children, though a few instances suggest a numbering system similar to that used today. In the case of shoes then, there is a uniformity in vocabulary that may hide a diversity in regional products. This supposition is supported by the use of place descriptors like *Oxfords, Irish brogues* and *Derby fronts,* which had become commonplace by this century. These types almost certainly developed because of slight regional differences in raw materials, processing and construction, but such variations would have affected the appearance and the wearing characteristics of the product.

What applies to shoes applies equally to cheese. Although cheese was made on a domestic scale throughout most of England, by 1660 there were areas where the manufacture of cheese for the national market was already important.[26] Despite this, the term *cheese,* without a descriptor, appears to have been used almost universally. This may be an illusion, in that much cheese was sold in the markets and no evidence survives of such transactions or of the choices available. Perhaps even in Cheshire and the adjacent parts of North Shropshire, where what is now called "Cheshire cheese" was made, other varieties were for sale in the markets, differentiated by name. Descriptors are found in counties like Sussex, where cheese was not made extensively even on a domestic scale. Here the mercers and other general shopkeepers sold it, sometimes listed in their probate inventories with descriptors. For example, Henry Newman, Shopkeeper of Arundel (1720), had about 5 Hundred of Thin Cheese at 21s per Hundred, a Hundred & 1/3 of Suffolk Cheese at 18s, nearly 18 hundred of old Cheshire Cheese at 29s 6d, about the same of new Cheshire at 25s, and nearly a hundred of Gloucester at 26s.[27] So not only the place of origin varied but so did the price.

This uncertainty about local differences may not seem important. Indeed, some local variations are trivial, like the different methods of twisting sausages into links used by butchers in Shropshire and Lincolnshire to this day. Such esoteric information on the minutiae of technique may provoke passing interest, but it is of little moment even in the history of butchery, though the continuing distinctive content and shape of Cumberland sausages as compared with those from Lincolnshire highlights

how persistent regional differences can be. The differences allow for preference in the consumer, if each type is marketed nationally, but they are not so marked as to affect the technology of cooking. The variations in content, processing and size of continental sausages are of a different order. There the regional varieties can not necessarily all be cooked in the same way. At a time when a variety would have been the only one known in its region, then cooking and sausage must have developed together in a symbiotic relationship. The word *sausage* incorporated not only many different products but implied different cooking and preserving technologies.

For some artifacts, the same word was used for different things in different regions. The word *skillet* is a case in point. There is a group of cooking vessels displayed today in museums and elsewhere, all of similar construction and shape. They were cast, usually in brass or in bell metal. Each has straight sides, is wider at the top than at the base, and has a flat bottom, three legs and a long handle. Such artifacts are invariably labelled as skillets. The probate inventories for the West Midlands suggest that this item was used there for a different sort of cooking vessel, more akin to the modern skillet. In this locality appraisers distinguished skillets from frying pans, which were usually made of iron, and from kettles, which were usually made of brass, though all three were made using the same technique of battery or beating, and thus were unlikely to have had legs. Like the frying pan, but unlike the kettle, the skillet was not apparently used in this region as an item of display, though it was, for example, in East Anglia. However, it appears that the cooking vessels called skillets in most museums today would have been recognized as such by the people of Yorkshire in times past, even if not by those of Shropshire. Here, then, is a word of national use applied to different artifacts of differing construction and of differing use, albeit all within the general function of cooking.

The uniformity of a term may obscure not only regional but also temporal variations. This observation is so patently obvious that its implications may not always be considered fully. Again, as with regional variations, it is best to consider these implications by looking at one or two terms whose meaning changed over time. Around 1600 *carpet* referred to a covering for a piece of furniture like a table or cupboard. It was frequently distinguished from a tablecloth or a cupboard cloth, two terms which were also common. However, by 1800, a carpet was more usually a floor covering. It appears that not only use has changed, but also mode of construction. What then was the essence of carpetness which carried the term over from one artifact to another? It is consistent with the evidence that the carpet, even as a covering for furniture, had been made of wool, unlike the table cloth or the cupboard cloth, which were usually included among the linens. The implications for appearance and for housekeeping at once become clear. Linen coverings were light in colour and in structure. They were fairly cheap and so could have been used in rotation to suit mood or occasion, but they needed frequent washing to remain attractive. Woollen coverings, on the other hand, were expensive to acquire and had a permanency comparable to tapestry. They might well have remained *in situ* as heirlooms for several generations, until fashion dictated they be discarded.[28] The change in meaning may have been more apparent than real in that a carpet remains, as it always was, a heavy durable covering.

The term *kettle* has also changed its meaning from a vessel similar in shape to a modern jam kettle (where the term survives), to a jug-like vessel with handle and spout. The difference in shape is so marked that the transfer of the term seems quite extraordinary, particularly as there was already a vessel called a flagon which was not dissimilar in shape from a modern kettle. Why did this new vessel acquire the name of tea kettle rather than tea flagon? The explanation may lie in function rather than appearance. A tea kettle was used for heating water, a flagon for storing or serving liquid. If the old-style kettle's primary function was also to heat water, this would explain why even quite poor households possessed a kettle as well as a cooking pot.

The discovery of a continuity in the essential meaning of a term may explain why superficially dissimilar artifacts shared a name, though some apparent shifts in meaning are not so easy to unravel. The term *maslin* has proved one of the most intractable. Maslin carries the connotation of mixture and had two distinct meanings. The one, a mixture of grains, is irrelevant here except to support the root meaning of the term. The other referred to alloys, i.e., mixtures of metals. In the seventeenth century it was applied particularly to a variety of pewter, apparently more desirable than the common sort. Most artifacts of maslin, for example, spoons, were not only useful but may also have been decorative. By the eighteenth century the

term maslin usually referred to a type of brass, invariably used to make kettles of the old type. The few examples in which a value by weight is given suggest that the kettles were small, and that the maslin was a brass containing a high proportion of copper. This would have made the artifacts more attractive. If maslin brass and maslin pewter were both brighter than normal grades, then the thread connecting the two meanings seems to have been the potential for display.

The next change in meaning was more fundamental. The term was transferred from the metal to the object itself, i.e., from a maslin kettle to a maslin. Then, as technology changed, from a vessel of brass to one usually made of enamelled iron – the cheap jam kettle of the nineteenth century. By the time the term kettle had been hijacked by the vessel that had started life as the tea kettle so a new term was needed for an old vessel that had virtually lost its name. This had by then also changed its function from a vessel to heat water to one used for specific cooking tasks like making jam or steaming fish.

So far the possibilities and problems of creating *A Dictionary of Traded Goods and Commodities* have been treated as relating to a dictionary of words. We now turn to Johnson's "sons of heaven," i.e., things. This shift encourages a different set of questions; for example, Where did the product come from? instead of Where did the word come from? and a shift in focus from Who used the word? to Who used product?, which is not the same thing at all. It also presents new challenges of interpretation.

A dictionary of things must be compiled through the use of words mostly as found in written sources. So few artifacts survive, and even fewer are well documented, that it is rarely possible to link object and name with any confidence. Exceptions are the pattern books used by merchants to drum up sales.[29] These each contain swatches of cloth properly labelled; on the face of it a source that brooks no argument. However, they fail in their very specificity; by showing only the styles actually stocked, it is difficult to assess typicality. Florence Montgomery uses these pattern books to good effect, but too great a reliance on chance survivals leads her on occasion to definitions that are too restrictive and even actually misleading. For example, she defines *cambric* as "a white linen cloth in plain weave,"[30] yet probate inventories show cambric with other descriptors (for example "striped").[31] Family records linked with surviving artifacts present the same limitations as sample books.[32]

In some ways more useful is Randle Holme's *Academy of Armory,* written in the mid-seventeenth century.[33] Here each definition is accompanied by a clear line drawing, in which the main features of the artifact have been honed down until only the essentials for a coat of arms remained. And this is where the disadvantage of the source becomes apparent. It is not only Holme and his perceptions that intrude, it is also the unreality of the image. Its very simplicity and crudity creates a barrier between us as viewers and the object. It is a barrier that cannot always be breached.

There are, then, problems with each approach, and the discussion continues. The interplay of the two is fruitful but is not likely to lead to simple solutions. To make the *Dictionary* exclusively of one type or the other would only diminish its usefulness. To continue Johnson's analogy, both the "daughters of earth" and the "sons of heaven" are necessary. Take the example of *fustian.* This was originally an imported fabric designed for the upper end of the market. A couple of centuries on it had become a coarse tough fabric suitable for working men's trousers. The *OED* distinguishes between these two meanings using appropriate illustrations. A dictionary of things would also have to make the distinction and offer two head words. The editors would have to apportion the illustrations. This approach may suggest an easy division between the two meanings that in fact did not exist and it may blur an important continuity that needs investigation. Even when most fustian served the top end of the market, *Holmes fustian,* imported from Germany, was cheaper and presumably of a poorer quality. Possibly the Germans were attempting to ape the appearance of the established product while serving a different market. When British fustian makers started into business it would appear that they too were imitating, not very successfully, the better quality imported fustians.[34] This would account for the metaphorical, pejorative use of the word, which has been noted first in sources right at the end of the sixteenth century, just when British manufacture started. In a dictionary of words it is easier to bring out the complexity of meaning and to leave the sources to speak for themselves. With fustian as a single head word, users of the data base can look at all the illustrative material, arrange it by date, by value or by any other criteria they choose. In this way the data base remains interactive and not fixed.

The solution is less satisfactory for a printed version of the *Dictionary* where illustrative source material will be much reduced. The distinctions between meanings will have to be drawn in the definition and the interaction between them developed in the discussion. In the end the debate on the "daughters of earth" and the "sons of heaven" resolves itself by an acceptance that there is no solution.

Another debate on editorial policy must on the other hand be resolved. For Johnson there was no debate. His dictionary was ordered alphabetically, and that was an end to the matter. For *A Dictionary of Traded Goods and Commodities,* this is only one option. A series of volumes, each on a particular topic, would be a practical alternative, though this apparently straightforward editorial decision has important implications, not immediately obvious.

There are advantages to ordering by category, attractive to a publisher. Work can be organized in an orderly fashion and each volume published as it is completed. This policy may have to be adopted simply to get a printed version published at all, but the disadvantages are considerable and ordering by category threatens the interactive nature of the source material and its usefulness for research. Take the example of *tin.* At the beginning of our period it was a crucial component of two of the most important alloys of the time, *bronze* and *pewter.* While the former was a straightforward casting metal used to make guns, bells and domestic hollow ware, the latter was more versatile. It could be cast or beaten into shape and was the raw material for that most potent symbol of private wealth – the "garnish" of pewter displayed on the dresser in every house of substance throughout the land. A further use for tin had been discovered well before 1700 as a surface skim to minimize rust (i.e., tin plate) or to reduce the damage done by a toxic underlay (i.e., tinning hollow ware made of copper alloys like brass). So far then, tin is clearly a metal used in the metal industries and it is not difficult to categorize.

The picture changed after the discovery that the crushed, dried bodies of a Mexican beetle, *Coccus cacti,* when mordanted with tin produced an excellent dye yielding a beautiful clear scarlet. What price a simple categorization as a metal now? A trader in tin need no longer be a metal merchant exclusively serving the metal trade; he could choose to form alliances with the dyers in Norwich or London who were specialists in scarlet, or with the clothiers of Wiltshire famous for their *Stroud-water reds.*[35] Tin also became a component of some medicines along with several other metallic substances like calamine, steel, copper and, above all, mercury.[36] As a result of these new uses, trading in tin may have become more complex as merchants exploited their several options.

The apparently simple editorial decision to place a single entry on tin in the volume concerning metal is clearly flawed. A possible alternative is to use multiple entries, one in each appropriate volume. This loses the dynamics of the tin trade as viewed by a contemporary merchant and reduces the likelihood of noticing possible connections between apparently disparate events, like the diminishing demand for tin as a component of pewter and the discovery of new uses in plating, dyeing and medicine. Any classification reduces the complexity of fluid situations and may encourage judgments about the economy and trade, which are too tidy and too simplistic.

Classification has become an issue in its own right, with implications beyond the editorial decision about the form the *Dictionary* should take. Categorizing headwords has created almost as many problems as it has solved. Looking at the way commodities were grouped and linked in the past is helpful. It may provide the one clue to meaning we have, as for some of the fabrics listed as linens in the 1582 *Book of Rates.* Contemporary perception of what constituted a drug, as set out in the 1660 *Book of Rates,* is also illuminating as is the categorization of commodities in some probate inventories.[37] However, while sorting related products into categories reveals which ones belong together, it also focuses the mind on the category rather than on the commodity itself. Multiple categories do not really resolve the problem, in that they encourage fragmentation, whereas the primary function of the *Dictionary* data bases should be to help analyze the complexity of trade by synthesizing disparate data.

The problem is not peculiar to The Dictionary Project. The Portbooks Programme has also categorized the commodities listed in the Port Books. The intention was to facilitate analysis of the trade of the ports within the Severn basin and the south-western peninsula. Although it has proved useful in this respect, it has also led to unresolved interpretational difficulties. The problem of creating a category for imported goods *per se* were so great that it was abandoned, leaving an item like oranges in the category of food, although its patterns of

production and of trade were distinct from all home-produced foodstuffs. In this instance the categories were based on consumption, rather than on production or on trade, though this principle was not applied consistently. Ideally two systems should have been created side by side, one categorizing each commodity by production, the other by consumption, so that *cheese,* for example, would be categorized both as "agricultural produce" and as "food." In practice this has proved to be too complicated to be practicable.

The two editorial problems have a common thread, although it is not immediately obvious. The debate about whether to produce a dictionary of words or of things can be resolved by recognizing that the tension lies in the relationship between the two and the effect this has on perceptions of the thing. The debate on categorization is not so easily resolved. A commodity starts as a product, extracted, fabricated or grown, then it is traded and finally it becomes an item of consumption as a staple, a luxury or a comfort. Our concern is primarily with the stage when it is traded.

The realization of what the issue was in both cases developed through work on the sources and through discussion on how best to elicit meaning. At an early stage it became clear that to replicate the way the *OED* used its sources would be inappropriate. There, brief quotations illustrate the use of a word, showing how nuances of meaning developed over time. The context into which the word is placed is very confined. What is not considered is that the whole document from which the quotation came may also add meaning. Yet this may be so. It is not enough to know, say, that Kidderminster stuff was used in 1668 for hangings in a chamber. It is also important to know whether it was the best chamber, or the one that housed the servants, whether the deceased was living in up-to-date luxury or in a house where almost everything was old and shabby. A group of similar documents may give additional information that one alone does not, allowing inferences to be drawn concerning typicality, popularity and social status. Add some inventories of tradesmen stocking Kidderminster stuffs and further factors can be considered such as typical points of sale, units of sale, market choice and price. Add a whole range of different sources, including those where references to Kidderminster stuffs do not occur, but other possibly similar fabrics do, and the full possibilities of contextual study become apparent.

The importance of respecting the integrity of each source as well as using it to supply quotations was emphasized by one of the first exercises undertaken by the Dictionary team. This was to create lists of words and phrases that made up the unedited commodity terms. Three major sources were used: about 100 probate inventories of tradesmen, the sample of Gloucester Port Books already entered in the data base, and the *Books of Rates* for 1582, 1660 and 1784. It was assumed that each list would provide some terms unique to that source, but the lack of correlation between the lists and the difference in style and format of the unedited commodity terms was quite unexpected. Since each of the three sources is, in this respect, just a list of commodities found in trade, it would be reasonable to expect that the commodity terms would be very similar. Yet only about a quarter of those listed in the tradesmen's inventories are found in the *Books of Rates* and about one sixth in the Gloucester Port Books. This is not to say that all three sources were not concerned with a very similar set of commodities, because they were. The point is that each defined and described those commodities in a particular way, largely unique to itself, and so each provides a different set of information and different clues to meanings. To exploit these differences to the full it is necessary to use not just extracts taken out of context, nor even the extracts in context within the document, but also the document as a whole set in the context of other documents which deal with that commodity.

The creation of the three lists drew attention to aspects of the commodities which had not been considered before, such as the ratio of home-produced goods to foreign, the importance of some centres for a wide range of artifacts not just for particular specialisms, and the use of colour as a descriptor. For example, in the Gloucester Port Books, 133 commodities were defined as English and a further 63 as British, that is about 5 per cent of the total. Although only 8 were actually defined as Foreign, 61 were designated Spanish, 28 Irish and 27 French, with smaller numbers from several other countries. The Port Books are not informative on foreign towns of origin, but 58 commodity terms (that is over 1%) contain "Manchester" as a descriptor, nearly five times as many as "London" and ten times as many as "Birmingham." The other two sources are generally more informative on foreign towns. Between them Bridges (Bruges) was used to describe 7 commodities, Cullen (Cologne) 6,

Venus or Venice 11. These figures are worth comparing with Dives Pragmaticus who referred to five countries or districts (Ireland, Flanders, France, Spain and Turkey) and six foreign towns of which no less than five were in Italy (Rome, Naples, Genoa, Venice and Milan). Modern perceptions of the relative importance of the several countries and towns of origin may need to be revised in the light of these simple lists.

The frequent use of colour as a descriptor throws another light on people's perception of things in times past. When the chemical composition of many commodities was ill understood, a colour descriptor represented far more than just the colour itself. So different qualities or varieties of lead, of copperas, of ochre, of brass and even of iron were all differentiated at times by colour. So grey iron was the common cast iron of commerce, white, a variety of cast iron low in silicon used in some puddling processes, and blackplate iron sheet, hand rolled ready for tin-plate making.[38] Even more marked is the use of colour descriptors with fabrics. When only natural dyes were available, and each was different in its capacity to withstand light, wet, wear and sweat, some colours became associated with the properties of the dye stuff itself. Both blue and scarlet had connotations regarding brightness and fastness far beyond the primary meaning of colour, the one in relation to linens, the other to woollens. Vermilion, another expensive red dye with desirable characteristics apart from the colour, was first used to describe only the colour of the cloth, then became the name of the cloth itself, so that it was possible to refer to white vermilion (i.e., the fabric that had become particularly associated with dyeing vermilion, in its ready prepared state but not yet dyed).

Of all the colours, it is white that was used most often and had the most significance to our forebears. Just as today, white was desirable; it meant clean and bright, and it meant refined. Although the *Books of Rates* listed only eight commodities differentiated by the descriptor "white," there were 76 in inventories of retailers, and 40 in the Port Books. In most cases it is easy to pick up the overtones of brightness and refinement; linens and linen products by the dozen, paper, pottery, sugar, soap and wax. For all of these, and many more, white meant better.

The next stage in ordering the lists ready for creating the headwords for the *Dictionary* itself was to invert each commodity term, so that *Bristol soap* became *Soap, Bristol,* and *Broad velvet ground taffety* became *Taffety, broad velvet ground.* The effect of this routine task was twofold. First, it called into question how far the string could and should be broken down, and second, it gave new perspectives on the commodities themselves and their relative importance.

The first issue of how far each string could and should be broken down is open to no generalized solution and each example has to be treated individually, with the recognition that decisions must remain open to change. At the moment blue linen, is a headword in its own right, but not blue calico, blue hard soap, blue pots, or blue thread. Yellow canvas is, but not yellow arsenic, yellow stockings for children, or yellow waistcoats. In each case the decision was not arbitrary, though no standard rules were followed unless an affirmative to the question "Does the colour descriptor add more to the commodity than just a colour?" constitutes a rule.

The second issue concerns how perspectives changed on the relative importance of each commodity. This provokes thought, though it has few implications for editorial policy. It is only to be expected that well-established and generic names of commodities like *cloth* (52), *serge* (21), *silk* (18) or *holland* (14) should be found in great variety. It is less expected that for some items of grocery there was more choice than today; *ginger* with 11 varieties, *almonds* with 6 and *sugar* with no less than 18. The range of small metalwares suggests a sophistication of manufacture and of use more often associated with a later period: 22 sorts of *nails* (apart from those like *sparrowbills* that had acquired a name of their own), 12 sorts of *locks* and nine of *bits.*

The most variety is to be found in haberdashery. No less than 78 varieties of *lace* and another 12 of *laces* were recorded, by far the most diverse commodity available. But there were 41 varieties of *buttons,* 40 of *thread,* 16 of *tape* and 11 each of *buckles* and *points.* All appears in a very limited range of sources. The list would be much more extensive, though not altered in emphasis, if recompiled today from The Dictionary Project's enlarged collection, particularly if the records of London shops were included. This importance of items of haberdashery contrasts sharply with the list that Dives Pragmaticus produced in the mid-sixteenth century. He did not even mention buttons, tape, buckles or thread, all items found in so much variety in later years, though he

listed some 15 occupations involved with producing, selling or using haberdashery. Other lists contemporary with Dives Pragmaticus confirm that this impression is largely accurate. Some of the items of haberdashery that were to be of prime importance a hundred years later were not yet major items of trade in the mid-sixteenth century.[39]

This unexpected variety, particularly of artifacts in which the labour costs were relatively high compared with the raw materials, calls into question our understanding of the technology of the day, and incidentally the importance of the multitude of small-scale craftsmen who developed it. In one sense it supports Joan Thirsk's argument that the industrial systems of the sixteenth and seventeenth centuries, based largely on out workers, encouraged diversity.[40] On the other hand the chaotic choice resulting from uncontrolled individual manufacture may mean the customers can get only one version of the commodity suited to their purpose, that is, they have no choice. The standardization resulting from controlled and centralized manufacture may reduce the range but will increase the certainty that, within limits, the customers will be able to select the one they prefer from among several.

The Port Books and the probate inventories, each in their own way, record the introduction of new technology. In the former, the fortunes of Abraham Darby's new blast furnace fired with coke can be traced through the carriage of his goods down the Severn, as can the success of his new patent method of casting bellied iron pots in sand.[41] The growing importance of Manchester and Birmingham is also charted, respectively for haberdashery and fustians, and for small metalwares. The evidence of probate inventories is less direct, but there too new technologies can be perceived, like the introduction of printed and flowered fabrics, the cheaper inkles and tapes made on the inkle machine, and the better-quality pewters and brasses.

The history of technological change cannot be separated from the study of traded goods and commodities. The trader was squeezed by pressure from two sources: a consumer-led demand for goods and a producer-led supply of new commodities looking for a market, while he himself had his own motives for encouraging a growth in consumption. The debate on the nature of consumerism cannot be resolved simply in favour of one party or the other. The development of new technology is one element, which itself came in response to a variety of pressures. The surviving documents concerning the early patents are another source that reflects something of the development of technology in the early modern period. They also reveal something of the environment in which invention operated. Patents have been viewed with suspicion in that they by no means always describe genuine workable inventions with commercial potential. However, as expressions of anxiety and aspiration they reveal much about deficiencies in contemporary technology. For example, a series of patents claimed the invention of a waterproof cloth that neither smelled horribly nor left oily stains on whatever it touched. The series in itself tells a story of failure and illustrates the danger of accepting any one patent as its face value, but it also reveals much about the unpleasant nature of contemporary oil cloth and something of how it was manufactured.[42]

What progress has The Dictionary Project made toward producing *A Dictionary of Traded Goods and Commodities?* Not very much in the sense that only a few experimental entries have been written. However, we have clarified our objectives and have a greater understanding of the sources. We can now appreciate more fully how each source presents a commodity in the fashion deemed most appropriate by its writer, so that the full implications of meaning are revealed only by using a range of sources, each distinct in its aims and content. Most important of all, the sorts of questions that need to be asked are better understood. We cite one final example.

Pepper is the fruit of a tree grown in the tropics. Its importation was controlled by the East India Company.[43] The berries were harvested twice annually, the first crop being of better quality than the second.[44] It was sold in various forms.[45] For most purposes it needed to be ground, which encouraged the development of appropriate technology and may have required the consumer to buy specialist equipment.[46] Pepper is susceptible to adulteration and needs protecting from damp.[47] It was used in medicine as well as in cooking,[48] but it was probably not offered as a condiment at table.[49] Its particular pungency, and the difficulties of the East Indian trade, encouraged trade in alternative spices with similar characteristics from the New World and from Africa. These were sometimes called peppers, usually with descriptors denoting place of origin.[50] The term was also applied more loosely to any pungent spice.[51] Each of these terse statements adds something to our understanding of pepper as a traded

commodity; each also raises other questions that can be answered from a study of the sources available. It is this approach that makes The Dictionary Project an exciting enterprise and a flexible and active tool in the study of trade and consumerism in the pre-industrial period.

Acknowledgement

Early versions of this article entitled From ABCs to Zedoary: Towards A Dictionary of Traded Goods and Commodities, 1550–1800 *were presented to seminars at the Victoria and Albert Museum and at Plymouth. The author thanks all members of* The Portbooks Programme *and* The Dictionary Project *at the University of Wolverhampton, particularly Angela Brown, former Leverhulme Fellow, Dr Barrie Trinder, Senior Lecturer at Birmingham University, Dr Peter Wakelin, former Director of* The Portbooks Programme, *and Dr Jeff Cox, the sternest and most constructive critic.*

NOTES

1. Samuel Johnson, *A Dictionary of the English Language* (New York: AMS Press, 1755, reprinted 1967), preface.
2. For example, J. Wright, *The English Dialect Dictionary* (London: Henry Frowde, 1898); K. G. Ponting, *A Dictionary of Dyes and Dyeing* (London: Mills & Boon, 1980).
3. For an account of the computing technology deployed by the project, see the Appendix. At the time the project was set up the institution was called Wolverhampton Polytechnic.
4. T. S. Willan, *A Tudor Book of Rates* (Manchester: Manchester U.P., 1962), introduction.
5. *A booke in Englysh metre, of the great marchaunt man called Dives Pragmaticus 1563,* reproduced in facsimile from a copy in John Rylands Library (Manchester: Manchester U.P., 1910), lines 23–30. I thank Polly Hamilton for drawing this source to my attention.
6. Ibid., verses 37–42.
7. For examples see *Patents for Inventions; Abridgements of Specifications Relating to Acids, Alkalies, Oxides and Salts A.D. 1622–1866* (London: Eyre and Spottiswoode, 1869), Patents Nos. 23 (1623), 146 (1664), 414 (1718), for use of new materials; 484 (1726), 1223 (1779), for modern-style chemical recipes.
8. E. Sibly, *Culpepper's English Physicial and Complete Herbal* (London: year of Masonry 5793), 117–8, entry on Lesser Celandine.
9. J. Gerard, *The Herbal, or General History of Plants, the Complete 1633 Edition as Revised and Enlarged by Thomas Johnson* (New York, London: Dover, Constable, 1975, facsimile edition).
10. J. Gerard, *The Herball, or a General Historie of Plants,* (1597); J. Parkinson, *Paradissi in sole paradisus terrestris, or A Garden of Flowers,* (1629). (C.) Linnaeus, *Species plantarum* (Holmiae, 1753) and *Genera plantarum* (Holmiae, 1754, 5th ed.).
11. British Patents Nos. 564, William Champion (1738) and 726, John Champion (1758). In both these patents zinc was still called spelter.
12. Samuel Johnson, *A Dictionary of the English Language,* preface.
13. T. Fuller, John Freeman (ed.), *Worthies of England* (London: Allen & Unwin, 1662, 1952), under Norwich.
14. F. Braudel, trans. Sian Reynolds, *The Wheels of Commerce* (New York: Harper & Row, 1986), 232, quoting Lucien Febvre, "Les mots et les choses en histoire économique," in *Annales d'histoire et sociale,* II (1930): 231ff.
15. 11 & 12 GUI 13 Ch 10 Stat 1.
16. K. Morgan (ed.), *An American Quaker in the British Isles: The Travel Journals of Jabez Maud Fisher, 1775–1779* (Oxford: Oxford University Press, 1992), 309. It would be interesting to investigate the frequency of this term in America, and what, if any, English terms it replaced.
17. Coalbrookdale Stock Book 1728–1738, CBD MS 1, Ironbridge Gorge Museum Trust Ltd., e.g., "24 September 1728 Nehemiah Champion of Bristol, 225 Izops weighing 11 cwt 3 qu 25 lb at 16s p cwt" (i.e., about 6 lb a piece). Izops were more expensive by weight than some other ironware. A clue to the meaning may be found in another consignment to Champion dated 10 June 1739, in which izops are coupled with small kettles. In this case the cost was only 15s p cwt.
18. Attributed to Shaw, *Oxford Dictionary of Quotations* (4th ed.) (Oxford: O.U.P., 1992), SHAW 638.31.
19. T. H. Breen, "Baubles of Britain: The American and Consumer Revolutions in the Eighteenth Century," in *Past and Present,* 119 (1988): 73–104.
20. R. H. Field, "Claiming Rank: The Display of Wealth and Status by Eighteenth Century Lunenberg, Nova Scotia, Merchants," *Material History Review,* 35 (Spring 1992): 1–21.
21. For example, F.N. Masson (ed.), *John Norton & Sons, Merchants of London and Virginia, 1750–1795* (Newton Abbot: David and Charles, 1968); Gottlieb Mittelberger, *Journey to Pennsylvania* (Cambridge, Mass., 1960) quoted by T. H. Breen in "An Empire of Goods: The Anglicization of Colonial America, 1690–1776," in *Journal of British Studies,* 25 (1986): 489.
22. Morgan, *An American Quaker;* for example,

"Sickles are manufactured by William Staniforth and in our Orders must be called Philadelphia sickles" (p. 294); "... we think Leicester goods are better suited for this Markett than Nottingham" (p. 323).

23. F. M. Montgomery, *Textiles in America, 1650–1870* (New York: W. W. Norton & Co., 1984), 321; quotes Postlethwayt referring to "Perpetuanas designed for the Spanish West-Indies." This is just one of many similar instances she quotes.
24. Morgan, *An American Quaker,* 294, "Stag Stafford Penknives."
25. For example, Public Records Office, E190 1260/09 and 1260/11 show six consignments of shoes going down the river Severn from Gloucester to Bristol in 1724, all but one of them out of Worcester. The consignments varied in size from 2 hogsheads to one small parcel.
26. For example, Richard Furber of Adderley in North Shropshire had cheese worth £168 at his death in 1660, which represents about 8 tons, (Lichfield R.O.). This would almost certainly be a hard cheese of the type that came to be known as Cheshire cheese.
27. Henry Newman of Arundel, 1720, Chichester R.O., MF 835. Probably by the hundred the appraisers meant the cwt, i.e., 112 lb. Thomas Turner, a shopkeeper of East Hoathly, Sussex, also stocked a variety of cheeses, not only from Suffolk and Cheshire, but also from Warwickshire. See D. Vaisey (ed.), *The Diary of Thomas Turner, 1754–1765* (Oxford: U.O.P., 1984), 25, 155. Thin cheese was apparently a better quality of Suffolk cheese, see Fuller, *Worthies of England,* under Suffolk. It may have been made in such a way that the fat was left in the whey resulting in what would be called today "low-fat cheese."
28. The large number of cupboard and tablecloths found in linen chests suggests this form of use. For example, John Featley, Doctor of Divinity of Lincoln (1667, Lincoln R.O. Di 38/2/10) had 2 diaper, 6 flaxen and 6 coarse tablecloths and 3 sideboard cloths all listed among the linen, whereas his carpets were virtually all listed in association with the furniture on which they lay, like the little table and carpet valued at 8s in the stranger's room.
29. For example, the late eighteenth century pattern books in the Joseph Downs Manuscript and Microfilm Collection, Winterthur Museum Library.
30. Montgomery, *Textiles in America,* 187.
31. For example, in the stock of two Sussex mercers, Thomas Bysshe of Petworth (1711) and Thomas Allen of Midhurst (1716), striped cambric respectively at 22d and 24d a yard (Chichester R.O.).
32. For example, N. Rothstein (ed.), *Barbara Johnson's Album of Fashions and Fabrics* (London: Thames & Hudson, 1987). In her diary Barbara Johnson recorded her purchases of fabrics and accessories to make up into gowns, interspersed with actual samples.
33. R. Holme, (vol. I, vol. II, ed. I. H. Jeayes) *Academy of Armory* (London: Roxburgh Club, 1688, 1905).
34. See Fuller, *Worthies,* under Lancashire. He names three types of fustian, Jen and Augsburg from Germany and Milan. Fuller wrote that these "retain their old names at this day, though these several sorts are made in this county, whose inhabitants, buying the cotton, wool or yarn coming from beyond the sea, make it here into fustians, to the good employment of the poor and great improvement of the rich therein, serving mean people for their outsides, and their betters for the linings of their garments."
35. For example, John Boddy, Dyer of Norwich, 1727. Boddy's "scarlet kettle as it hang" was valued at £20. Boddy also had block tin, worth 4s, and the *aqua fortis* to dissolve it ready for mordanting his cloth before scarlet dyeing. I thank Dr Jeff Cox for this reference and for explaining the chemistry involved in scarlet dyeing.
36. Mercury was especially important in the treatment of syphilis.
37. For example, the appraisers of the estate of Thomas Cowcher, mercer of Worcester (1643, Worcester R.O.), divided his stock into nine categories: linen drapery, woollen drapery, silk wares, hosiers ware, St Martin's wares, crewel wares, haberdashers wares, salters wares and grocery wares.
38. W. K. V. Gale, *The Iron & Steel Industry: A Dictionary of Terms* (Newton Abbot: David & Charles, 1971).
39. Public Records Office, SP 12/8, no. 31 and B. L. Lansdowne MS. 8/17, quoted in J. Thirsk, *Economic Policies and Projects* (Oxford: O.U.P., 1978), 181–5. Buttons worth c£100 were imported in 1559. By contrast imports of thread valued at c£15000, put it, among the top ten items listed for value.
40. Thirsk, *Economic Policies and Projects,* particularly 106–117.
41. N. Cox, "Imagination and Innovation of an Industrial Pioneer: The First Abraham Darby," in *Ind. Arch. Rev., XII/2* (Spring 1990): 127–144.
42. Starting with British patent 40 (1627) through several to 2188 (1797). The survey of patents carried out by the Dictionary Project ends in 1800 with this particular problem unresolved.
43. K. N. Chaudhuri, *The English East India Company, 1600–1640* (London: Cass, 1965), ch. on pepper.
44. W. H. Simmonds, *The Practical Grocer* (Gresham Publishing Co, n.d., [1904]), II: 179.
45. For example, black, white, case, ground. See the probate inventory of William Lyntott, Mercer of Harting, Sussex, 1710 who stocked about 3 lb white and 1 lb black pepper, (Chichester R.O.).

46. For example, Richard Kempster of Bridgnorth, Shropshire, tin plate maker (1756) had 13 pepper boxes for sale (Lichfield R.O.). Unless purchased ready ground, a mortar and pestle would also have been required.
47. Common adulterants in ground pepper were chalk, sand and clay. Pepper was also mixed with the berries of the inferior Long Pepper (*Piper officinarum*); Simmonds, *The Practical Grocer*, 181, 183–4.
48. For example, "For the tooth ach Take pepper and grains ...," *Jane Mosley's Derbyshire Remedies, 1669–1712* (Derbyshire Museum Service, 1979), page C; "For a man that hath a perillous Cough, Take sage rue comins and powder of Pepper ...," J. Smith and T. Randall (ed.), *Kill or Cure: Medical Remedies of the 16th and 17th Centuries from the Staffordshire Record Office* (Stafford R.O., 1987), 15. Unlike some other spices, pepper was used then as now almost exclusively for savoury dishes, but in substantial amounts. For example, a small yeoman farmer bought about one pound in 1724 and again in 1726, though much less in the intermediate year; L. Weatherill (ed.), *The Account Book of Richard Latham, 1724–1767* (Oxford: O.U.P., 1990), 132, 139. The exception to the exclusive use of pepper as a flavouring for savoury dishes was in making chocolate. See J. Houghton, *A Collection for the Improvement of Husbandry and Trade*, 4 vols. (London, 1727–8), vol. III: 446.
49. Salt cellars and mustard pots were quite commonly listed in probate inventories (for example, Francis Poole of Bridgnorth, Shropshire, 1771, Lichfield R.O.).
50. For example, Jamaica pepper (*Eugenia pimenta*), Guinea pepper, now called Cayenne (*Capsicum annuum*), both from the Americas. Grains of Paradise from Africa (*Amomum melegueta*) was also known less commonly as Melegueta pepper and, confusingly, as Guinea grains.
51. For example, Houghton, *A Collection for the Improvement of Husbandry and Trade*, vol. III: 428, "[juniper] berries afford (beside a tolerable pepper)...."

Appendix

The Computing Infrastructure

The members of The Dictionary Project's team are historians first, not lexicographers or experts in computing, and the *Dictionary* is being constructed with historians in mind rather than linguists. It is intended essentially as a working tool and as a mine of information on our commercial and cultural heritage.

The project uses IBM-compatible Apricot 386 micros, with monochrome VDUs, 40–50 megabytes of hard disc and 4 megabytes of RAM. It is hoped these will be replaced in the near future by 486 machines with colour monitors. The PCs are linked to a dedicated Apricot VX FTs File-server with 2 x 500 megabytes of hard disc, which in turn is linked to a local network. This large amount of space is necessary since one complex search can use as many as 150 megabytes for processing. Handling our range of sources, most of them in highly idiosyncratic format and language, places considerable demands on the computing. We use the software FoxPro 2.5, modified at the front end to suit our particular needs and to make it more manageable by relative tyros. It is an extremely powerful tool capable of handling large amounts of data very quickly. The program is menu driven, with a help line on screen as required. The imminent arrival of FoxPro for Windows should increase flexibility and improve access to sources that would be better left in ordinary text files using WordStar. A pipe dream for the future is the incorporation of visual material to supplement the written word, with the software to handle it.

A Dictionary of Traded Goods and Commodities, 1550–1800 is envisaged in two forms: first, a series of relational data bases stored and worked on a PC, and second, a printed version. The former is the work station of the project and consists of a "top level data base" of up to 10 000 commodity terms supported by a series of "source files." These contain data from a range of sources: Statutes of the Realm and State Papers; customs records like the *Book of Rates* and the coastal Port Books for the port of Gloucester; the probate inventories of producers, merchants and retailers; patents; newspapers; diaries, autobiographies, recipe books and account books; contemporary books on trades and professions; and contemporary fiction. The source files vary in form. Some consist of extracts, ranging from brief snippets to an almost complete text. For example, all sections of Randle Holme's *Academy of Armory* relating to the household and to trades are being transcribed into a data base, omitting only strictly heraldic and scriptural detail; by contrast, only appropriate advertisements have been abstracted from newspapers. Other source files consist of look-up tables containing the distillation of data from sources too large for simple extraction. The coastal Port Books for

Word ARSENIC **Definition no.** 1 **PART** N **Key Class** APOTH

Variant spellings arsenick, arsenicke, arsnecke, arsnick, arsnicke **Near Synonyms**

Commonly within Apothecaryware, Drugs, Saltery

Includes Auropigmentum, Flowers of arsenic, Orpiment, Ortment, Rat bane, Realgar, Red arsenic, Red orpiment, Red sulphur, Rosaker, Rose algar, Roseager, White arsenic, Yellow arsenic

Vide Orpiment, Rat bane, Realgar

Bibliography
Partington, (6th ed., 1953), p 850.
Rees, ((1819-20), 1972), pp 112-24.

Illustrations

Examples

Dates Throughout period.

Definition A chemical element, highly toxic in all its forms.

Discussion The two most common sulphides of arsenic are both found native; Orpiment (As_2S_3) is yellow (hence yellow arsenic) while Realgar (As_2S_3) is reddish (hence red sulphur, Rose algar, Red orpiment). The oxide, White arsenic (As_2O_3) is readily obtained by roasting one of the sulphides in air. When sublimed, it was called Flowers of arsenic. Arsenic is also present in some ores, particularly those of copper. It was burnt off in preliminary roasting so that some early mining and metal working sites are still heavily contaminated. Arsenic was used primarily to poison vermin (hence Rat bane) though it was used medicinally, particularly for skin diseases, and had many industrial applications, including whitening copper, preserving skins, removing hair and glass making. Although arsenic was admitted free of duty as a dyeing drug, it does not appear in contemporary dyeing recipes. However, Rees states that it was used for dyeing as well as for calico printing and as a pigment.

Dates throughout the period.

Diagnostic advice Yellow, probably relates specifically to native orpiment, red to native realgar, white to the oxide or to the pure element.

SOURCE REFERENCE FILES

STATUES

\3 & 4 ANNE C4 S7
1704
Unrated drugs are "... all Chymical preparations, physical oils and medicinal drugs (excepting unrated Drugs used for dying, ..." Dying goods exempted are "... Pomegranate, Pills Arsenick ..."

\8 GEO C15 S11
1720
Dye stuffs imported duty free. "... Arsenick lb; ..."

RATES BOOKS

Date 1582
String Arsenick
Unit C of 112 lb; **Value** 41s 8d

Date 1660
String Arsenick white or yellow or Rosalgar
Unit lb **Value** 4d

Date 1784
String Arsenic white or yellow or Rosalgar
Unit cwt **Value** 4s 8d

PORTBOOKS

Comment Gloucester PB - not found. One consignment in Bristol PB of a small cask returned. Apothecary and Saltery Wares are rarely itemized which probably accounts for its apparent absence.

Units Small cask

RETAIL INVENTORIES

Chesh RO: Kenrick EYTON, Chester, 1624 "Arsnecke and Roseager 1 li 1s 4d"
Chesh RO: James OLDFIELD, Macclesfield, 1634 "iij li & 1/2 of w'te arsnicke 1s 6d; j li & a halfe of yellow arsnicke 1s 6d"
Lichf RO: Richard WILSON, Salop, 1742 "14 li Arsnick 3s 0d"

MISCELLANEOUS

Thynne, (1599), p36 "This realgar is that which by some is called Ratisbane a kynde of poysone named Arsenicke."

Houghton, (1727), CCXLIII "course arsenick or ratsbane ... being of a gold colour, of a poysonous nature ... and as Mr Samuel Dale says in his pharmacologia is of a metallick substance made white by subliming it with an equal part of common salt ... of this was imported in the year 1694 to London 900 lb from Germany ... Tis used in making medecines where tis rectified ... its antidote is alkalizate salts ... Tis also used to kill rats with."

Chambers, (1753), sb arsenic "There are divers kinds of Arsenic. Orpiment is called native or yellow arsenic. Red arsenic is a preparation of the white or chrystalline Arsenic."

Rees, ((1819-20), 1972), I, p113 and pp121-3 "Arsenic is a substance of such small value and such little demand that none of the proper ores of this metal are wrought in the great; the whole of the arsenic of commerce being prepared in Saxony by roasting the cobalt ores in the manufacture of zaffre ... This ... is done in ovens ... arsenic and sulphur ... are for the most part deposited in the horizontal flue ... In this state it is called crude arsenic or flowers of arsenic; the yellow streaks proceed from the sulphur uniting with the arsenic into orpiment ... The white arsenic of commerce is prepared from the crude by mixing this last with potash or, as some advise, with lime, and resubliming."
"In the reguline state it is used to white copper and enters as an ingredient in several kinds of speculum metal. Oxyd of arsenic is employed as a poison for rats and other vermin, and as a flux in glass making. Orpiment and realgar are of extensive use in Dying and calico printing and as a pigment. Sulphur moderates the operation of this metal ... Mr Justamond in his valuable surgical tracts (London 1789) gives the recipe of an arsenic caustic, called 'the Earl of Arundel's receipt to cure cancer'... Dr Fowlers ... experimental cases undertaken in the Staffordshire Infirmary in 1784 ... [following] the very great sale and successful operations of certain patent ague drops which were (probably with reason) supposed to be a preparation of arsenic."

Word KIDDERMINSTER **Definition no.** 1 **Part** N **Key Class** TEXTI

Variant spellings cidderminster, kederminster, kicherminster, **Near Synonyms** kiddermaster, kiddermuster, Kittermaster, kitterminster, kittermuster

Commonly within Stuffs

Includes

Vide Stuffs, Cloth, Carpets

Bibliography
Beck, (1886), sb.
Kerridge, (1685), p 87.
Montgomery, (1984), p 273.
Thornton, (1979), pp 109, 133, 139, 221.

Illustrations Montgomery, (1988), plate D-17

Examples Berch Collection, Nordiska Museum Stockholm

Dates Used throughout the period, particularly in the Severn valley.

Definition Fabrics originally made in Kidderminster and used mainly for furnishing.

Discussion A Kidderminster cloth industry began in the late sixteenth century. At first clothiers made what they called 'spernes', then 'Kiddermynster lynsey-woolseys' and finally Kidderminster stuffs. The use of the town's name with these fabrics suggests that they were from the start readily distinguishable from the usual types. Some were of wool only, others had a warp of linen, apparently specially spun. Early references suggest that two toned fabrics were common, a variety which continued into the nineteenth century when a special Kidderminster loom was used to produce 'two-ply cloth'. In addition some fabrics were printed. The success of Kidderminster fabrics was probably due partly to regulation, search and seal, rigorously enforced, but partly also to a readiness to adopt new techniques and a sensitivity to the demands of the market. Kidderminsters were used widely for furnishing, but also for clothing. They were traded on the river through the port of Bewdley throughout the period, and are found in many probate inventories of retailers, particularly in the Severn valley, but also elsewhere. Values recorded in mercers probate inventories range from 7d to 23d per yard. By the nineteenth century Kidderminster was mainly noted for the production of carpets (in the modern sense). This probably accounts for the wide spread confusion about the meaning of this term, not helped by a change of meaning in the word carpet from "a runner to protect the top of a table or cupboard" to "a floor covering."

Diagnostic advice Kidderminsters seems invariably to have meant Kidderminster Stuffs. Kidderminster Wares may have included other products like Aprons, Gloves etc made at Kidderminster.

SOURCE REFERENCE FILES

RATES BOOK
Not found

STATUTES

\22 & 23 CAR II C8
1670
"An Act for the Regulating the making of Kidderminster Stuffs. vii ... all Linen Yarn reeled ... to be hereafter used by ... Stuff weavers. ix ... all sorts of Cloths and Stuffs woven with Wool only, or of wool and other Materials. xi ... Shops, Houses and Warehouses of any common Buyer, Dealer in or Retailer of any of the said Cloths or stuffs and the Houses and Work houses of any Dyer, sheerman ...."

PORT BOOKS

Comment Carried downstream almost exclusively from Bewdley and nearby ports. Both *Kidderminster Stuffs* and *Kidderminster Wares* were carried. The former probably refers to the specialist fabric of that name, the latter may have included other fabrics and commodities made at Kidderminster, like Rugs and Gloves, which are both found designated as of Kidderminster in the Port Books.

Units Outwards: **(Wares and Goods)** Pack (1679-1759), Truss (1725), Box (1732), Bag (1747). **(Stuffs)** Fardle (1612-1685), Bag (1634-1712), Fodge (1666-1726), Truss (1674-1745), Piece (1679-1694), Trunk (1680-1684), Pack (1681-1759), Parcel (1681-1708), Small Piece (1681), Small Truss (1681), Box (1684-1731), Barrel (1705), Bundle (1705), Chest (1728-1734).

Units Inwards

RETAIL INVENTORIES

Berks RO: Richard TISDALE, [no place given], 1665 "1 Ps of Kederminster 02 05 00 16 yds 1/4 of Kedderminster 23d 01 11 02 ... 11 yds 1/2 of 7/4 ditto at 18 00 17 03"
Berks RO: Charles SLANNE, Newbury, 1667 "2 Remnants of kiddermaster 00 08 00".
Chesh RO: John BENNET, Chester, 1668 "10 yards of 10 quarter Kidderminster hangings at 1.6 p yd; 4 yds 3 qrters of 7 quarters hanging at 10d 00 03 11"
Lichf RO: Richard RUTTER, Newport, Salop, 1689 "Two Remnants of Kittermaster 6 yds at 14d p yard 00 07 00"
Lichf RO: Robert MILWARD, Newport, Salop, 1700 "23 yards of Kittermuster stuf at 16d p yard 01 10 08"
Chesh RO: Thomas BROWN, Northwich, Chesh, 1748 "5 yards 1/2 blue Kittermaster 7d 00 03 02; 8 yards red Kitterminster 9d 00 06 00"

DOMESTIC INVENTORIES (total value of inventory in square brackets)

Lichf RO: Eliz LEWIS, Bridgnorth, Salop, 1653 "1 payre of Curtens & vallyents of Kicherminster stuff" 00 10 00 [£31]
Lichf RO: Basil RICHARDS, Dawley, Salop, 1659 Parlour "one carpet of Kidderminster stuff" [£121]
Lichf RO: Anne BEAUCHAMP, Bridgnorth, Salop, 1677 Hall Chamber "one cubberd cloth of Kidderm'r stuff" [£45]
Lichf RO: Mr Jeremiah LOW, Bridgnorth, Salop, 1684 Street Chamber "one long Kidderminster carpet" 00 03 00 [£46]
Lichf RO: Lawrence JONES, Bridgnorth, Salop, 1685 Dining Room "... a Side board and Kidderminster covering ..." [£158]

MISCELLANEOUS

Dodd (1843), p281, quoting the Penny Cyclopedia "at Kidderminster, which is now the principal seat of the trade, and where at least five thousand persons are employed in its different branches, the carpet manufacture did not commence before the eighteenth century".

Gloucester have been transcribed in their entirety and are stored in data bases compatible with the *Dictionary*. However, their size and their complexity make them difficult to handle. Look-up tables have been constructed from the data to facilitate their use by The Dictionary Project. One of these itemizes all commodity terms found, coupled with the associated standardized form used by the project;[1] another lists the commodities along with all commodity strings in which they appear. There are several other look-up tables and more are planned.

One of the largest and most informative source files consists of several hundred probate inventories, exactly transcribed and stored in a data file, with the whole text placed in a "memo field." This type of field can cope economically with text of indefinite length, but is less versatile, since the full power of FoxPro to search and analyze is only available for use on conventional fields. However, a purpose-built front end will locate all instances of a commodity term via any spelling or known synonym throughout the data file using look-up tables. The searcher can view each instance in turn, scrolling at will to put the commodity term in context. In this way, our access to our sources is different from typical data base systems and from most concordances, which usually only offer a narrow context.

The *Dictionary* data base is unlikely to be available commercially for some years, though it can already handle some queries. From it, a printed version will be produced containing about 4000 commodity terms. Hopefully this will be ready for publication in about five years. The disadvantages of limiting the *Dictionary* to the printed form are considerable. In particular, the data base loses its interactive character so the operator can no longer control what data to use and how to analyze it. In compensation, access can be more convenient and is available to those without computing facilities.[2] Although the primary purpose of the project is the *Dictionary,* we recognize that the data will be useful in many other ways. Our aim is to ensure that the data are not transcribed or stored in ways that would inhibit this.

The following examples indicate the *Dictionary's* potential. They are not intended to be definitive; indeed no attempt has been made here to distinguish between what will appear in the printed version of the *Dictionary* and what will be available on computer. Only the computer version will have access to all sources and will be fully referenced. The illustrative examples below are each in three sections. The first is a representation of the top level data base, most of which will be generated automatically as the source files are marked; the second consists of a definition and a discussion; and the third indicates some of the sources used and the type of information found in each. Obviously in this appendix it is impossible to convey the potential of our search facilities. Illustrative sections here have, therefore, been abstracted manually, although this is contrary to one of the basic principles of the Project that as much of the context as possible, preferably the whole document, should be available for study.

The terms *arsenic* and *Kidderminster* were chosen partly because they presented a challenge that would test the proposed system. Arsenic as a chemical appears in several forms, the chemistry of which was formerly not fully understood, and it has spawned a crop of near synonyms. We felt also that chemical exactitude could impose heavy demands on readers who were primarily historians and that this needed thought and experiment. The word arsenic incidentally has a second, if minor, unrelated meaning which would have to be dealt with as a separate entry. Kidderminster in the sense of a fabric may have meant different things at different times and is confusingly defined in the *OED*. As a place, rather than a commodity, it also requires rather different treatment and we wanted to explore the practicality of dealing with all aspects of this word under one heading.

NOTES

We thank The Computing Centre and The School of Computing and Information and Technology at the University of Wolverhampton for their help and support, particularly Marek Paul and Mary Garvey.

1. These are based on the form favoured by the *Oxford English Dictionary* (1st edition), except that hyphens are avoided whenever possible. If the *OED* has no appropriate entry a contemporary form is used.
2. For a useful discussion of the two possibilities, see B. Merrilees, W. Edwards and D. Megginson, "Editing and Concording the *Dictionarius of Firmin Le Ver* (1440)," in *Historical Dictionary Databases,* T. Russon Wooldridge (ed.), CCH Working Papers 2 (Toronto: University of Toronto Press, 1992), 9–19.