



Managing diversity and complexity

The letterbooks of the Royal Society represent an important source for the study of scientific endeavour in the late seventeenth and early eighteenth centuries. There are 4390 items in the Early Letters collection.¹ They include letters received by the society or its members, copies of outgoing correspondence and various miscellaneous documents. There are accounts of experiments and observations, often with accompanying illustrations. There are letters relating to the formal business of the society and its affiliated societies, from provincial gentlemen seeking to establish their scientific credentials, and from members of the society on continental tours. There is correspondence with scholars in the Netherlands, France, Germany and elsewhere, much of it preserved in the original language and in translation. The letterbooks do not represent a complete archive of the correspondence of the society. In 1667 at the instigation of the then secretary Henry Oldenburg:

it was resolved, that the Council should be desired to take care, that all letters, which are written by and to the Society, or by and to any of their members, be put together in a book, and thence transcribed into the Letter-book appointed by statute for that purpose.²

Despite this, there are gaps and omissions in the archive, since the maintenance of the records relied upon the enthusiasm and diligence of successive secretaries. Consequently, the collection mirrors the varying levels of activity within the society over the first decades of its existence: decades of alternating enthusiasm and despondency, activity and desuetude.

The letterbooks as currently bound are arranged alphabetically by letter writer and chronologically within that ordering. This arrangement makes it straightforward to examine the letters written by individuals, but locating the letters they received is more difficult. Researching networks of correspondence or themes within the archive requires more effort still. In the past the collection has predominantly been mined by historians of science interested in particular scientists. Many of the letters associated with important individuals such as Newton, Boyle and Oldenburg have appeared in edited collections, but much of the archive remains relatively unexplored.³ Over the past two

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¹ Based on the number of items in the on-line catalogue of the Royal Society (<http://www.royalsoc.ac.uk>) with an Early Letters archival reference.

² Quoted in M. Feingold, 'Of Records and Grandeur: the Archive of the Royal Society' in M. Hunter ed., *Archives of the Scientific Revolution* (Boydell Press, 1998).

³ See A.R. and M.B. Hall, *The Correspondence of Henry Oldenburg*, 13 volumes: volumes 1-9 (Madison: University of Wisconsin Press, 1965-73); volumes 10-11 (London: Mansell, 1975-6); volumes 12-13 (London: Taylor & Francis, 1986); M.Hunter, A. Clericuzio and L. Principe, *The Correspondence of Robert Boyle*, 6 volumes (London: Pickering & Chatto, 2001); H.W. Turnbull, J.F. Scott, A.R. Hall and L. Tilling, *The Correspondence of Isaac Newton*, 7 volumes (Cambridge: Cambridge University Press, 1959-77).

years the letters have been catalogued in a project financed by the Andrew Mellon Foundation and the results of this project are now available through the Royal Society online catalogue.⁴ However, it is difficult to do justice to the diversity of subject matter and the intricate interconnections between many of the letters within the confines of a formal catalogue.

In 2003 CELL became involved in discussions with the Royal Society and the Newton Project⁵ about making the contents of the letterbooks available on-line. It was appreciated that the aims of the parties were different and that the project would need to accommodate these. The archivists were predominantly interested in making the collection accessible to a wider readership and in providing images that would reduce the need for researchers to access the fragile originals. The academics were interested in exploring the complexity of the resource, enabling new avenues of research to be pursued and relating the contents of the letterbooks to other sources, such as the society's minutes and publications. The personnel at CELL have experience in reconciling the different aspirations of academics and archivists, while our Director, Professor Lisa Jardine, has published extensively on the development of science in the seventeenth century.⁶ In addition our Management Committee includes the Boyle scholar Michael Hunter of Birkbeck College and the historian of the Royal Society Mordechai Feingold of Caltech is on our Advisory Board. It was also recognised that the recruitment of non-Anglophone partners would be essential to the success of the project and CELL already has links to a number of European scholars in this field. It was consequently agreed that it would be appropriate for CELL to take the lead in this project. Although considerable support was expressed by researchers in the field, two applications for funding were unsuccessful. In November 2004 Lisa Jardine led a public masterclass on 'Exploring the Early Letters of the Royal Society'. Following this it was agreed that a pilot project would be undertaken, which would provide a basis for realistic project planning and a working example of what we were trying to do. The pilot project was funded out of CELL's core funding.

As technical director of CELL, I was responsible for the pilot. I am an early modern historian with experience in XML encoding and general purpose programming. The pilot project took 12 letters for 6 of which we had images and produced an edition presented through our website. This took approximately 20 project days over 5 months to complete and was launched on 25th April 2005, to coincide with the rerunning of Professor Jardine's masterclass.

It was agreed that the initial aims of the Early Letters project would be to provide on-line for each letter within the archive:

- a discursive description
- images of the original
- a transcription

There would also be mechanisms by which readers could negotiate the collection in various ways, allowing them to pursue themes, reconstruct correspondences, etc. The

⁴ <http://www.royalsoc.ac.uk/DServe/dserve.exe?dsqApp=Archive&dsqDb=Catalog&dsqCmd=Search.tcl>
– items in the Early Letters collection have a RefNo beginning 'EL'.

⁵ <http://www.newtonproject.ic.ac.uk>

⁶ See Alison Wiggins, 'The Auchinleck Manuscript Project as an exemplar of collaborative research'. CELL reference: FOR/2004/04/001

second stage would link the letterbooks to the society's minutes, the *Philosophical Transactions* and manuscript sources in the Royal Society's archives and elsewhere.

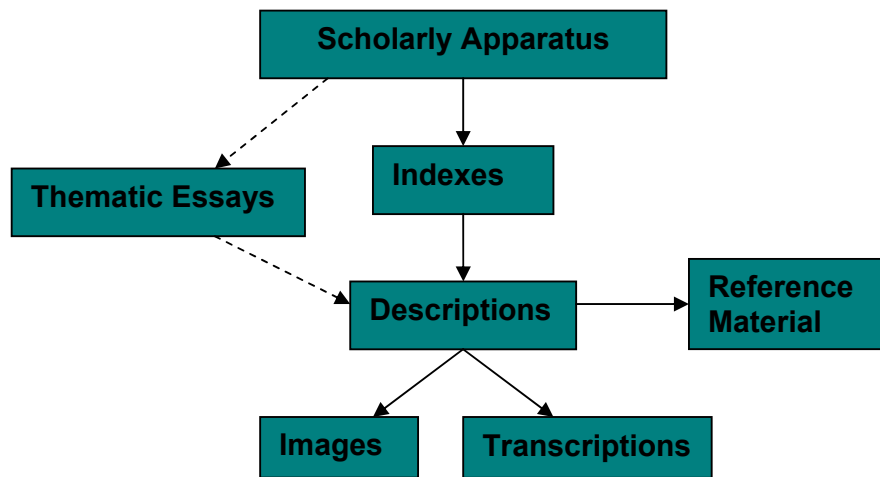


Figure 1: Conceptual Model of Early Letters Project Design

For the pilot project it was decided that we would produce a simplified version of the final project design, incorporating:

- a description of each of 12 letters;
- a transcription of each of 12 letters;
- images of 6 letters linked to their transcriptions;
- an index by archival reference;
- an index by date;
- a brief introduction;
- a transcription policy;
- a biographical dictionary.

In order to achieve these objectives, it was necessary to:

- create a transcription policy;
- create an XML encoding policy for the transcriptions and supporting documents;
- transcribe the sample letters;
- prepare the images;
- write the introduction;
- provide biographical references;
- write code to transform the XML and other components into a website.

Since we do not expect to be able to fund the whole project from a single source and anticipate that descriptions, transcriptions and images will be added incrementally to the website over time, we wanted to develop a methodology and tools which would support this and achieving this end also became a feature of the pilot project.

Because of the eclectic nature of the collection, which includes many copies and extracts rather than original letters, we decided that the detailed manuscript transcription policies adopted by the Newton Project or Boyle Workdiaries⁷ would be inappropriate. In the first instance our purpose is to create texts than are accessible to the interested

⁷ See http://www.newtonproject.ic.ac.uk/transcripts_intro.html and <http://www.livesandletters.ac.uk/wd/editorial/transcription.html>

reader, not to painstakingly mirror all the features of the manuscripts. To this end we adopt the following conventions:

- The ampersand (&) is retained.
- Thorn is silently altered to 'th'.
- The use of i/j and u/v is modernised.
- The long s is silently altered to 's'.
- Contractions are silently expanded.
- Alchemical symbols are interpreted as their planetary or chemical equivalent, which ever makes most sense in the context.

Apart from the above conventions, original spelling is retained. Original punctuation is retained, although additional punctuation may be added to aid comprehension. Insertions and corrections are silently incorporated into the text, while deletions are ignored. Clarifications and editorial insertions are kept to a minimum and, where they occur, are enclosed in []. The transcriptions are intended to be studied alongside the images of the letters, enabling readers to understand the original not to replace it.

We made the deliberate decision that transcriptions should be presented to the reader without editorial intervention. Each letter is provided with a discursive description, which is used to identify people and subjects referred to in the text and enables the editor to raise any issues or points of interest. From the description for EL/W3/3 (see figure 2) there are links to the biographical register for Christopher Wren, Lord Brouncker, Torricelli, Kircher and Scotby. Thematic links were not implemented in the pilot, but this extract provides a good illustration of the range of subjects than can be covered by a single letter. It also illustrates how scientific language has altered - sciographical, scenographical, catoptical, etc. are not in common use today. The advantage of the discursive introduction is that such terms can be explained or given their modern equivalents, without overburdening the transcription with mouseovers and links.

This discursive approach is far more flexible than a traditional catalogue, as can be seen by comparing it with the existing entry for EL/W3/3 from the Royal Society's on-line catalogue:

Repository GB 117 The Royal Society

Level Item

RefNo EL/W3/3

Title Copy of a letter from Christopher Wren to William Brouncker

Date 30 July 1663

Description Containing suggestions, on scientific themes, for Charles II's entertainment at a reception

Extent 3 sides

Format Manuscript document

Language English

Royal Society EL/W3/3

Copy of a letter from Christopher Wren to Lord Brouncker



Christopher Wren, who is in Oxford, is responding to a request from Lord Brouncker for a contribution to a collection of experiments which are intended to entertain the king on a visit to the Royal Society. Wren claims that he cannot deliver the experiment he had chosen, due to a lack of skilful instrument makers in Oxford and his need to leave the town on business. He is unable to suggest any new experiments, since the Society has recently been taken up with experiments based on the work of Torricelli. Whatever is presented needs to be remarkable, but not a mere knack (trick), such as Kircher, Scotby or jugglers (conjurers) perform.

Wren lists various possibilities for experiments, but dismisses each:

1. geometry - not showy enough
2. astronomical instruments - of interest only to astronomers
3. sciographical knacks (perspective drawing devices) - too common
4. scenographical, catoptical and dioptical tricks (trompe-l'oeil) - will only work, if well executed
5. designs for labour-saving or more efficient machines, improvements in agriculture - require too much explanation and demonstration
6. architecture - needs to be related to an actual building to rise above the merely antiquarian
7. navigation - Wren hesitates to suggest anything in Brouncker's own area of expertise
8. chemistry - too dirty or tedious
9. anatomy - too sordid

Wren concludes that scientific advances such as those made by Descartes are invariably built upon the observation of the mundane, which do not make for good spectacle.

Finally, Wren suggests 4 possible experiments, based on his previous work:

Figure 2: Letter Description

The descriptions are also used to link letters together. For example, in one of our sample letters some information is requested, the receipt of which is acknowledged in another. Currently such links help the reader to follow a correspondence, but in the future they could be used to generate semi-automatic thematic indexes of related letters.

As currently implemented the interface to the letters is through the description, which provides access to the transcription and, if images are available, to the images and to the transcription and images in parallel. If viewed on its own the transcription is presented as a single document. When viewed in parallel, the transcription is divided into pages to match the images (see figure 3). The purpose of the descriptions is to aid the non-expert reader to understand the documents, while providing the editor with freedom to explore the content discursively and to create cross-references without the restraints that are often imposed by utilising a transcription for this purpose. It is envisaged that in the future different groups of readers (secondary level students, undergraduates, academics, the general public) would be presented with different mediations to the material. One area we want to explore is how these different groups react to the descriptions and how they utilise them. We suspect that some academic researchers will prefer unmediated access to the images, which is not currently accommodated.

All the content for the pilot is encoded in XML: transcriptions, descriptions and supporting material. The use of TEI was considered, but rejected in favour of designing elements and attributes specifically for this project. The encoding was kept deliberately simple, as our aim was to concentrate on the substantive content of the documents rather than the complexity of manuscript presentation or syntactical structure. It is our intention to support the aims of researchers outside our immediate community by

ensuring that our XML is well documented and thoroughly validated, so that they may use it as a reliable base for additional layers of encoding to meet their research needs. We rejected any idea of attempting to predict the research aims of others and to encode the documents to satisfy these undefined aims. Our previous experience of encoding projects strongly suggests that this approach is the only way to ensure effective management of a project.

Royal Society EL/B1/1

Drafts of two letters by William Brouncker, 03-09-1662

To Charles II

May it please your Majesty

Wee your Majesty's most loyall subjects, newly incorporated by your Majesty's Charter and honoured with the name of the Royall Society, do with all humility present ourselves before your Majesty, the Royall founder thereof, to offer you up our most hearty thanks, as the only way we have at present to expresse our deep sence of your Majesty's grace & favour to us; and to assure your Majesty of our constant adoration of your sacred person, our devotion to your Maiesty's service. & our firme resolution to further sincerelv & unanimously the end for which

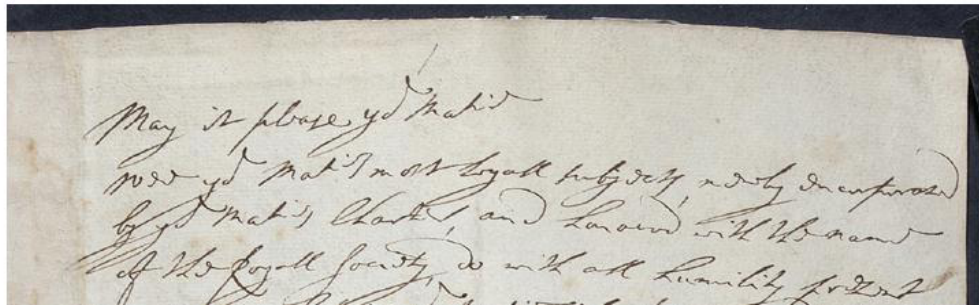


Figure 3: Text and Image in parallel

The description and transcription for each archival item is held in a single source file, identified using the archival reference. The available images are identified in the same way, allowing for the automatic association of descriptions, transcriptions and images. Although a single encoding policy was developed, separate DTDs were defined for the descriptions and transcriptions, the editorial and the biographical reference. Although this required effort to ensure that the DTD were kept synchronised with amendments to the encoding policy, it allowed the enforcement of strict rules according to the document type and aided validation of the content.

The website is created by processing the content off-line using a program written in Python that utilises the DOM interface. Python was chosen because of its suitability for rapid prototyping and its support for object orientation. The programme has been written to allow either the generation of the entire website or the selective update of specified files, permitting incremental addition of content. The programme makes several passes through the XML, in order to generate the content and infrastructure of the website.

Some of the letters used in the pilot have a complex structure, so the transcription and description are encoded into matching sections and subsections, which allows direct links to the appropriate part of a long document to be automatically generated by the Python programme. EL/B1/1 includes two separate texts in a single archival reference and is encoded as two sections. EL/A/28, EL/A/29 and EL/A/30 include copies of the minutes of the Dublin Philosophical Society with a covering letter. They are encoded as

two sections for the minutes and the letter, with the minutes subdivided into further subsections for the minutes of each separate meeting. Links to descriptions for other archival references are added by the editor using the linkref element.

In order to create the website the programme:

1. generates a HTML document containing a transcription for each letter;
2. if there are images for the letter:
 - a. if there is more than one page, generates a HTML document for each page incorporating appropriate links for next and previous;
 - b. generates a HTML document to allow access to the images;
 - c. generates HTML framesets to enable access to the image and corresponding transcription for each page that includes the start of a section;
3. generates a HTML document containing a description for each letter and links to the transcriptions and images as appropriate;
4. generates an index for all letters ordered by date (using the value attribute of the order_date element);
5. generates an index for all letters ordered alphabetically by archival reference (using the archive and item attributes of the letter_xml element);
6. generates the editorial content for the site;
7. generates the biographical index.

Command-line arguments can be used to generate updates to the website, when new letters are transcribed or corrections are made to existing content.

Although the selection of letters in the pilot was small, it has enabled us to better understand the complexity of the material. It has convinced us that the needs of the archivists and researchers will be best met by keeping the transcriptions simple and concentrating the bulk of our efforts on the supporting scholarly apparatus. It has also allowed us to test and refine our proposed approach to the encoding of the documents, the enforcement of standards and the incremental development of the project. This selection of just 12 letters has produced a biographical index of 64 individuals. For the pilot the links from the biographical index to the letter descriptions were hard-coded, but in future these links will be generated programmatically during the processing of the source files. The biographical index will draw on the extensive work that has already been undertaken in this field and we will work with colleagues in the History of Science to design and implement a unified dictionary to which each project can implement its own interface and links. Our vision is of a centralised biographical resource encoded in XML, which projects can either integrate into their own projects as a whole or use as a basis to which to add a layer of information relevant to their concerns. Similarly, rather than undertake the definition of the enormous range of scientific and commodity terms that occur in the Early Letters, we will work with the Dictionary Project at the University of Wolverhampton to create an interface to their on-line *Dictionary of Traded Goods and Commodities*. (Appendix 2 provides sample entries from the *Dictionary* for 5 terms found in a single paragraph of EL/A/30.)

Since making the content of the letters available to a wider community is a driving force of the project, search facilities are clearly vitally important. A rudimentary analysis of the topics covered by the letters in the pilot has confirmed the diversity and complexity

of the subject matter of the collection. We are convinced that a conventional approach to the provision of metadata for the corpus will be insufficient to meet our needs. We had planned to produce a thesaurus preparatory to implementing a semantic web application. However, a process of consultation over the summer has convinced us that this would be too labour intensive and that it would be better to concentrate on providing comprehensive descriptions and scholarly apparatus, supported by a text-search facility. This decision was reinforced by the results of the British Academy Policy Review *E-resources for Research in the Humanities and Social Sciences* (2005), which suggested that simple text search facilities were most appreciated by the majority of researchers in the Humanities. We have implemented a simple google-type search of the descriptions, which we will develop further to include monitoring of user search strategies. In this way we hope to develop a search strategy which is responsive to the needs of our user community.

The purpose of the Early Letters project is to help researchers to exploit the great potential there is within this collection to make connections and to draw out themes in a way that is difficult and time consuming to do within their current archival context. It is our intention to surround the edition with thematic essays drawing on the collection written both by CELL doctoral students who are using the archive for the doctoral work and by leading researchers within the History of Science discipline. This work on the exploitation of the on-line resource will progress in parallel with its creation.

Dr Jan Broadway

November 2005

Appendix 1

DTD for Archival Units

```

<!DOCTYPE letter_xml [
<!ELEMENT letter_xml (title, order_date, description, section+)>
<!ELEMENT title (#PCDATA)>
<!ELEMENT order_date EMPTY>
<!ELEMENT description (p|linkref|list)+>
<!ELEMENT section (title?, notes?, body, notes?)>
<!ELEMENT notes (note)+>
<!ELEMENT note (#PCDATA)>
<!ELEMENT body (subsection|p|pb)+>
<!ELEMENT subsection (p|pb)+>
<!ELEMENT p (#PCDATA|person|cite|pb|lb|linkref)*>
<!ELEMENT linkref (#PCDATA|person)*>
<!ELEMENT person (#PCDATA)>
<!ELEMENT cite (#PCDATA)>
<!ELEMENT list (item)+>
<!ELEMENT item (#PCDATA|person|cite|linkref)*>
<!ELEMENT pb EMPTY>
<!ELEMENT lb EMPTY>

<!ATTLIST letter_xml archive CDATA #REQUIRED
                item CDATA #REQUIRED
                version CDATA #REQUIRED>
<!ATTLIST order_date value CDATA #REQUIRED>
<!ATTLIST section n CDATA #REQUIRED
                type CDATA #REQUIRED>
<!ATTLIST subsection n CDATA #REQUIRED>
<!ATTLIST p align CDATA #IMPLIED>
<!ATTLIST person id CDATA #REQUIRED>
<!ATTLIST linkref n CDATA #IMPLIED
                fname CDATA #IMPLIED>

```

DTD for Biographical Reference

```

<!DOCTYPE reference [
<!ELEMENT reference (title, person+)>
<!ELEMENT title (#PCDATA)>
<!ELEMENT person (name, dates?, description, linkref+)>
<!ELEMENT name (#PCDATA)>
<!ELEMENT dates (#PCDATA)>
<!ELEMENT description (p)+>
<!ELEMENT linkref EMPTY>
<!ELEMENT intref (#PCDATA)>
<!ELEMENT p (#PCDATA|intref|cite)*>
<!ELEMENT cite (#PCDATA)>

<!ATTLIST reference version CDATA #REQUIRED>
<!ATTLIST person id CDATA #REQUIRED>
<!ATTLIST linkref fname CDATA #REQUIRED>
<!ATTLIST intref id CDATA #REQUIRED>

```

DTD for Editorial Material

```
<!DOCTYPE editorial [  
<!ELEMENT editorial (title, body)>  
<!ELEMENT title (#PCDATA)>  
<!ELEMENT body (p|list)+>  
<!ELEMENT linkref (#PCDATA)>  
<!ELEMENT p (#PCDATA|cite)*>  
<!ELEMENT cite (#PCDATA)>  
<!ELEMENT list (item)+>  
<!ELEMENT item (#PCDATA|linkref)*>  
  
<!ATTLIST editorial version CDATA #REQUIRED>  
<!ATTLIST linkref fname CDATA #REQUIRED>
```

Appendix 2

Sample definitions from Dictionary of Traded Goods and Commodities 1550-1820

© Dictionary Project University of Wolverhampton

CORNU CERVI

A Latin term that translates literally as the HORN of a DEER. It is more commonly known as HARTSHORN. The Latin indicates that it was used in APOTHECARY, as was a similar product, CORNU UNICORNIUM. Much was imported, and was rated already burnt and ground. This process reduced it to a whitish colour like CHALK so that it was listed as Cornu-Cervi Calcinatum [RATES 1784/023]. One tradesman, a 'Levigator' or grinder had 'Corn. Cerv. Calc.' in stock, suggesting some at any rate was prepared in this country [TRADECARDS LY----BRRJ]. Cornu cervi was also used as a descriptor as in 'Sal Volatile Cornu Cervi' and 'Spiritus Cornu Cervi' [RATES 1784/023]; so used to denote SAL VOLATILE and SPIRIT respectively made from this horn rather than any other product.

PLANTAIN WATER

A decoction made from PLANTAIN, a low herb with broad flat leaves and spikes of inconspicuous flowers. Nicholas Culpeper suggested this water for use with sore eyes, while one part of plantain water to two of 'the brine of POWDERED BEEF' boiled together were deemed a 'most sure remedy to heal all spreading scabs or itch ... and all other running and fretting sores' [Culpeper (1792), 231-2]. It was used by Josselin to relieve the pain of a sore navel and sore eyes, in both cases mixed with SUGAR [DIARIES EN0026JSSR; DIARIES 0029JSSR], much what Culpeper recommended. OED online earliest date of use: 1597

SPIRIT OF WINE

SPIRIT of WINE was an alternative name for ALCOHOL, or more accurately for ethanol, the most common alcohol. Since it is very difficult to remove all traces of water in the distillation, spirit of wine would still have contained some water. As the name suggests it was most often made by distilling wine, though a similar product could be achieved by the distillation of any spirituous liquor. On a first distillation wine gives BRANDY, but a second distillation would remove virtually all traces of the taste of the grape.

Spirit of wine was used extensively in medicinal preparations, so the term was occasionally given in Latin as 'Spiritus vini'. Both 'Proof Spirit of Wine' and Rectified Spirit of Wine were part of the eighteenth-century Materia Medica [Pemberton (1746), 141]. Spirit of Wine in which CAMPHOR had been dissolved was described in the eighteenth-century Dispensary of the Royal College of Physicians as a preparation 'to be kept always at hand in the shops' [Pemberton (1746), 289], but it was by no means the only use of the spirit in the pharmacopoeias. It also had industrial applications; for example, it was used to dye BONE black [HOUGHTON 1/361/137a], and in lamps as LAMP SPIRIT.

Standardised application of terms like PROOF and RECTIFIED only came slowly, and were certainly not universal by the end of the eighteenth century, so that spirit of wine was frequently used as a standard of strength; for example the 'American Physitian' of

1672 contained the comment 'They .. make a sort of Strong-Water, they call Rum or Rumbullion, stronger than Spirit of Wine' [quoted by OED under Rumbullion].

OED online earliest date of use: 1626 under Pulse

SPIRIT OF SULPHUR

A substance sublimed from SULPHUR, possibly sulphur dioxide. There was some confusion as to whether it was the same as OIL OF SULPHUR. However, according to Phillips, it usually came off before the 'oil' [quoted in OED under Oil], so he was making a distinction. At least one retailer in the Dictionary archive had both the spirit and the oil of sulphur [INVLATE MY1730BSSJ]. A patent in 1749 contained a method of 'Making a liquor and spirit of sulphur with brimstone and saltpetre' [PATENTS 0644 (1749)]. This would have produced some sulphur trioxide, which reacts with water to give sulphuric acid.

The contexts of two of the examples in the Dictionary archive, suggest it was used medicinally.

OED online earliest date of use: 1706

SYRUP OF VIOLETS

A preparation made from SYRUP and flavoured with the flowers of the VIOLET. Making a syrup of the flowers was probably the most common way of preserving them for use throughout the year, so that it is found in most shops selling APOTHECARY. Since it was believed to have some medicinal properties it may often be noted expressed wholly or partially in Latin as in 'Sir' vyolaru' 1 li di' [INVEARLY NN1624EYTK], and/or heavily abbreviated as in 'S violaru' [INVEARLY MN1573GGHP]. Although it was not his intention, John Houghton indicated that syrup of violets retained the blue colour of its flowers, as well as pointing to a possible adulterant in NEPHRITIC WOOD [HOUGHTON 3/253/521b]. Whether it was ever used for this purpose, is not known.

It is apparent, judging from valuations, that the quality of this syrup varied, being costed from 2s LB or less [INVEARLY MY1634GVRE], to double that [INVMID MY1665NDHT]. This may be explained by the two recipes given in an anonymous Book of Simples. In the first, the violet flowers were infused in boiling water. The liquor was then strained, the sugar added and the whole reheated only sufficiently to dissolve the sugar. In the second, no water was added, but a thick syrup was obtained by gradually heating alternate layers of the flowers and the sugar [Anon (1908), nos. 63, 73]. A late edition of Nicholas Culpeper's *English Physician* concluded that the syrup 'is of the most use, and of better effect, being taken in some convenient liquor; and if a little juice or syrup of lemons be put to it, or a few drops of the oil of vitriol, it is made thereby the more powerful to cool the heat, and quench the thirst, and giveth to the drink a claret wine colour, and a fine tart relish pleasing the taste' [Culpeper (1792), 309]. A recipe for Syrup of Violets was still included in the London Dispensatory of 1746, but it was probably used by then primarily to mask the taste of unpleasant medicines [Pemberton (1746), 302]. It is the only product of violets included by that date.

OED earliest date of use: 1400-50 under Violet