



UC Berkeley School of Information

The Organization of Knowledge

History of Information 103
Geoff Nunberg

Feb. 19, 2009



Today's Puzzlers

Who said, "To enchain syllables, and to lash the wind, are equally the undertakings of pride," and what was he referring to?





Today's Puzzlers

What was "one of the most politically significant reference books in history"?





Today's Puzzlers

What part of Roget's *Thesaurus* does McArthur describe as an "afterthought"?





Itinerary: 2/19

"Knowledge" and "Information"

Shifting conceptions and forms of knowledge:
1500-1750

Representations of knowledge: Cabinets and
museums

17th-c. reactions to "Information Overload"

The modern organization of knowledge: from
theme to alphabet

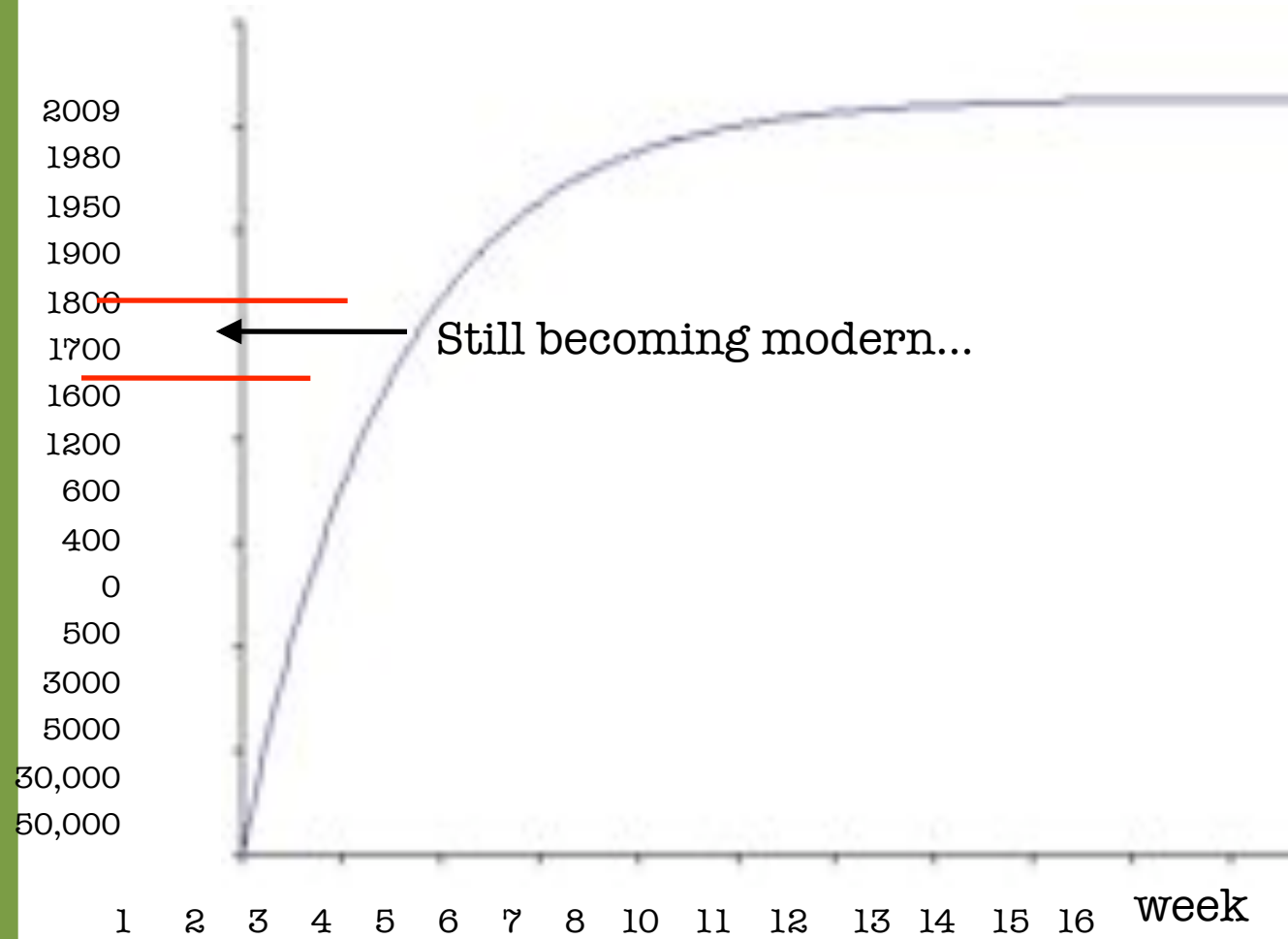
The rise of the dictionary



where we are



From the painting by Sir Godfrey Kneller





The Emergence of the Modern "Informational System"

Many, if not most, of the cultural phenomena of the modern world derive from [the 18th century] -- the periodical, the newspaper, the novel, the journalist, the critic, the public library, the concert, the public museum [*not to mention intellectual property, scientific societies, the dictionary and encyclopedia, etc. – GN*]. Perhaps most important of all, it was then that 'public opinion' came to be recognized as the ultimate arbiter in matters of taste and politics."--Tim Blanning, *The Culture of Power*



"knowledge" and "information"

"human knowledge" vs. ?"human information"

OED: **knowledge**, 13: The sum of **what is known**.

Knowledge as a collective property:

"The Chinese of the third century had knowledge of porcelain."

"medical knowledge" vs "medical information": what is the difference?



II. Shifting conceptions and forms of knowledge: 1500-1750



The 15th-Century Curriculum

The *enkyklios paideia* ("circle of learning"):

Trivium: grammar, logic, rhetoric

Quadrivium: arithmetic, astronomy, geometry, music

The three philosophies: ethics, metaphysics, "natural philosophy"

Higher faculties: theology, medicine, law





Changing Frames of Knowledge

Within 200 years, something like the mod, system emerges.

Responses to influences that are:

Pragmatic/material

Philosophical/academic

Symbolic/political

(Not independent...)



The Representations of Knowledge

Knowledge and the role of the "trésor"

Libraries, anthologies, dictionaries, in a word "treasuries" [*trésors*], alongside of encyclopedic collections, delimit a vast territory on which are cast the signs required for knowledge, the expression of identities, and communication among the members of the group.

-Alain Rey, "Les trésors de la langue," 1986

i.e., The trésor doesn't simply inform; it represents.



Material Representations of Knowledge



Curriculum mirrored in
form of library
(bibliographies)

Leiden University Library, 1610



Material Representations of Knowledge



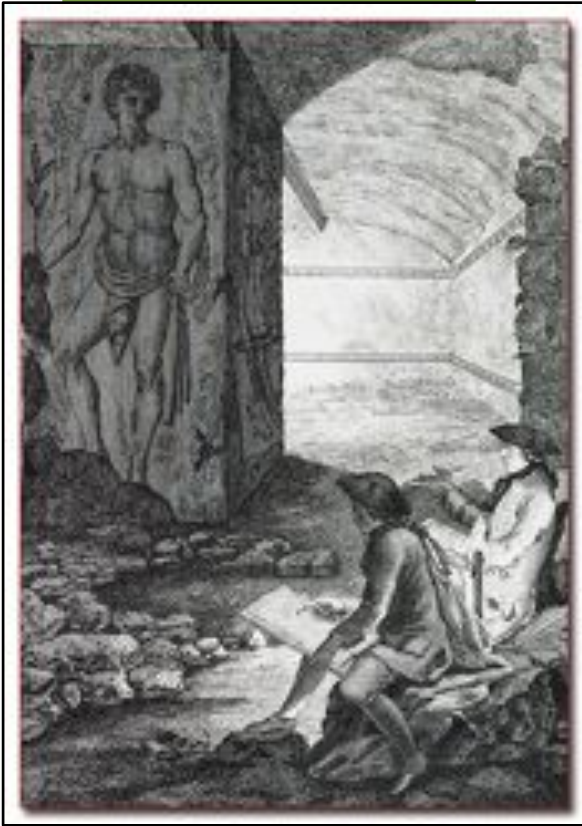
Curriculum mirrored in form of library (bibliographies)



Leiden University Library, 1610



Knowledge and the "Virtuosi"



"He Trafficks to all places, and has his Correspondents in every part of the World; yet his Merchandizes serve not to promote our Luxury, nor encrease our Trade, and neither enrich the Nation, nor himself. A Box or two of Pebbles or Shells, and a dozen of Wasps, Spiders and Caterpillers are his Cargoe. He values a Camelion, or Salamander's Egg, above all the Sugars and Spices of the West and East-Indies... He visits Mines, Cole-pits, and Quarries frequently, but not for that sordid end that other Men usually do, viz, gain; but for the sake of the fossile Shells and Teeth that are sometimes found there." (Mary Astell, "*Character of a Virtuoso*," 1696)



Representations of Knowledge: The Kunstkammer

Organization of knowledge mirrored in form of
Kunstkammer, cabinets of curiosities,
Wunderkammer, etc.



Museum Wormiamum, 1655



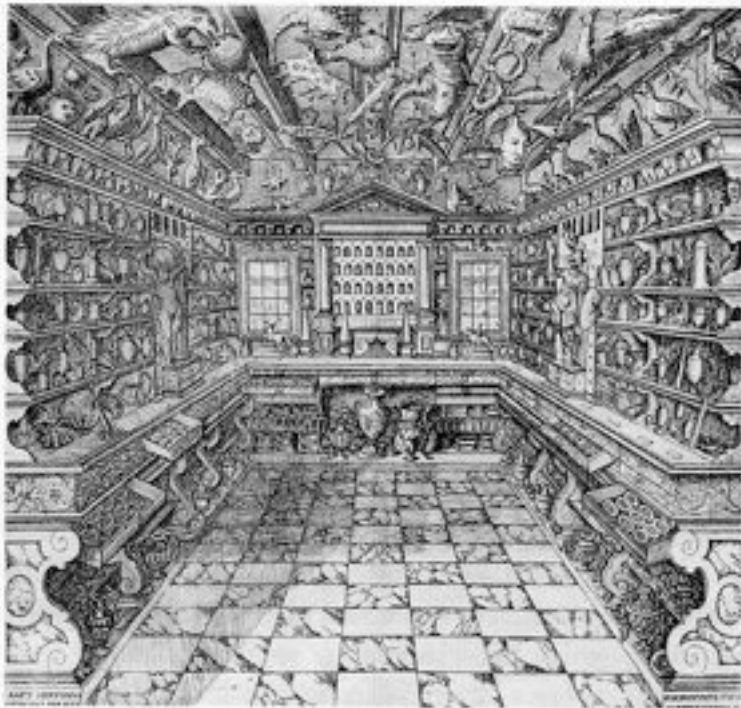
Representations of Knowledge: The *Kunstkammer*



Natural History Cabinet, Naples, 1599



Representations of Knowledge: The Kunstkammer



The Kunstkammer of Rudolph II was a carefully organized "museum" articulated through an understanding of the world... Its contents were organised to exhibit a world picture, with objects that symbolised all aspects of nature and art, as conceptualized by the occult philosophers... This organisation depended on the concept of resemblance, where the objects and their proximities suggested macrocosmic/microcosmic links.

Eilean Hooper-Greenhill, *Museums and the Organisation of Knowledge*



Material Representations of Knowledge

Analogy... makes possible the marvellous confrontation of resemblances across space. It also speaks... of adjacencies, of bonds and joints. Its power is immense, for the similitudes of which it treats are not the visible, substantial ones between things themselves; they need only be the more subtle resemblances of relations.

Michel Foucault, *The Order of Things*



Representations of Knowledge: The Studiolo



Studiolo of Francesco I
Florence (1570)



Kunstkammer, 1636



Representations of Knowledge: The Kunstschränk

The Kunstschränk (art cabinet or art shrine)





Representations of Knowledge: The Kunstschränk

Presentation of the
Pomeranian Kunstschränk
to Duke Philip II of
Pomerania-Stettin (Anton
Mozart, 1615)



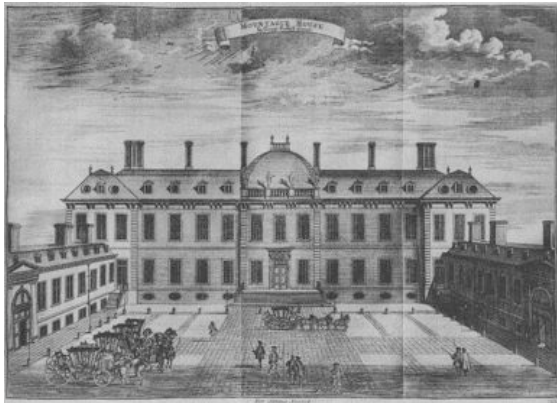


From Cabinets to Museums

Kunstkammers first made available for public viewing in mid-17th. C (Kunstmuseum Basel, 1661)

Public museums in 18th c:

British Museum, 1759, containing cabinet of curiosities assembled by Hans Sloan, ms collections, Royal Library. Later: collections of antiquities, etc.



Montague House, home of original British Museum in Bloomsbury

Uffizi Gallery, Florence, 1765

Belvedere Palace, Vienna, 1781

Louvre Palace opened to public in 1793 with royal collections; augmented by Napoleon



17th c. Galleries

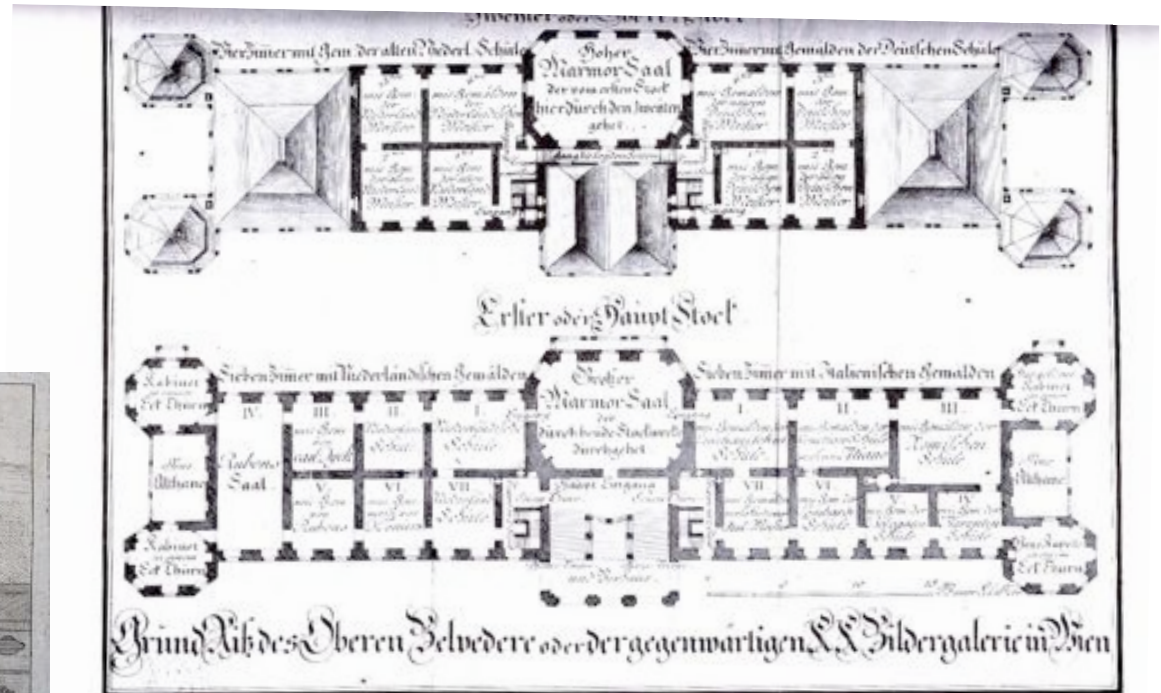


23. *The Imperial Gallery in Prague*, by Johann Bretschneider, 1714. The paintings are arranged according to the visual and decorative effect.



18th c. Galleries

Painting Galleries,
Schloss
Belvedere,
Vienna, 1781



29 Histories of Art were created in many of the galleries of Europe. This plan of the paintings gallery in the Schloss Belvedere in 1778, shows how the works were grouped by country, and within that, by date, by (geographical) school, or by individual artist. This is in marked contrast to the forms of display shown in Plate 23.



Aside: The Roots of the "Information Explosion"

"We might well regard the information explosion as the dominant achievement and characteristic of our times."
Smithsonian Secretary Robert McC. Adams

And while Mr. Reagan prospered in schools without libraries, I believe that the "information explosion" of more recent years has made school libraries necessary.

This is the information age! There is an information explosion. Some students will need a longer period of time to master mathematics, science, economics, world history...



Pragmatic Forces: Perceptions of "Information Overload"



We have reason to fear that the multitude of books which grows every day in a prodigious fashion will make the following centuries fall into a state as barbarous as that of the centuries that followed the fall of the Roman Empire. Unless we try to prevent this danger by separating those books which we must throw out or leave in oblivion from those which one should save and within the latter between what is useful and what is not. Adrien Baillet, 1685



"That horrible mass of books which keeps on growing, [until] the disorder will become nearly insurmountable."
Gottfried Leibniz, 1680



The Reorganization of Libraries

Antonfrancesco Doni, 1550: there are “so many books that we do not have time to read even the titles.”

Gabriel Naudé proposes library organization scheme to “find books without labor, without trouble, and without confusion.”

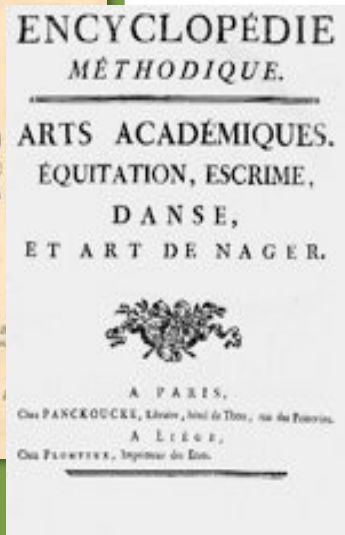
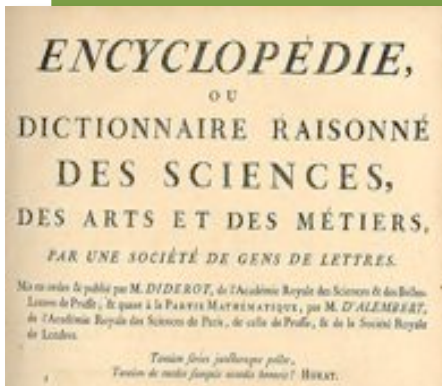


Strategies for dealing with information overload

Compendia and reference books (*répertoires* or *trésors*)

As long as the centuries continue to unfold, the number of books will grow continually, and one can predict that a time will come when it will be almost as difficult to learn anything from books as from the direct study of the whole universe. It will be almost as convenient to search for some bit of truth concealed in nature as it will be to find it hidden away in an immense multitude of bound volumes.

—Denis Diderot, *Encyclopédie*, 1755





Strategies for dealing with information overload

Compendia and reference books (*répertoires* or *trésors*)

"I esteem these Collections extremely profitable and necessary, considering, the brevity of our life, and the multitude of things which we are now obliged to know, e're one can be reckoned amongst the number of learned men, do not permit us to do all of ourselves." Gabriel Naudé, 1661 [librarian to Mazarin]

The *Cyclopaedia* will "answer all the Purposes of a Library, except Parade and Incumbrance." Ephraim Chambers, 1728



Strategies for dealing with information overload

BUT:

“So many summaries, so many new methods, so many indexes, so many dictionaries have slowed the live ardor which made men learned.... All the sciences today are reduced to dictionaries and no one seeks other keys to enter them.”

M. Huet, 1722



Strategies for dealing with information overload



The most accomplished way of using books at present is twofold. Either, first, to serve them as men do Lords, learn their titles exactly and then brag of their acquaintance :—or, secondly, which is indeed the choicer, the profounder, and politer method, to get a thorough insight into the Index, by which the whole book is governed and turned, like fishes, by the tail. For to enter the palace of Learning at the great gate requires an expense of time and forms ; therefore men of much haste and little ceremony are content to get in by the back-door. ... Thus men catch knowledge by throwing their wit on the posteriors of a book, as boys do sparrows by flinging salt upon the tail."

Jonathan Swift, "Tale of a Tub," 1704



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...How Index-learning turns no student pale,
Yet holds the eel of Science by the tail.

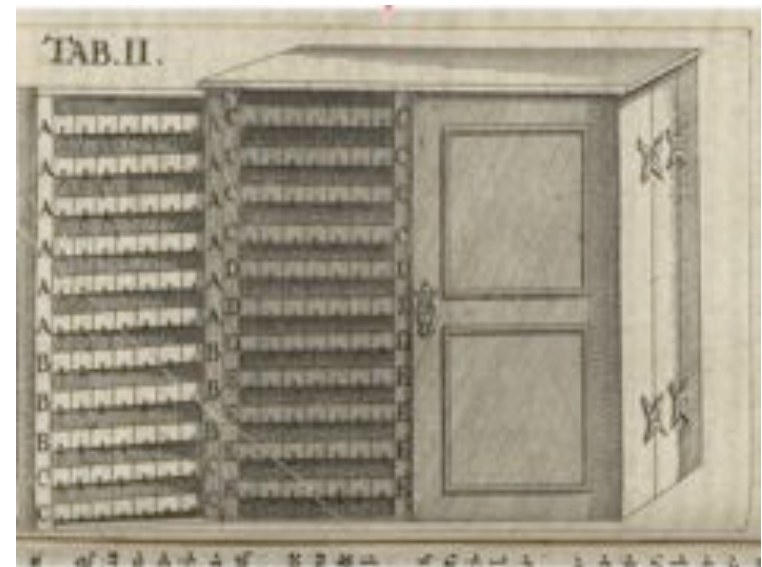
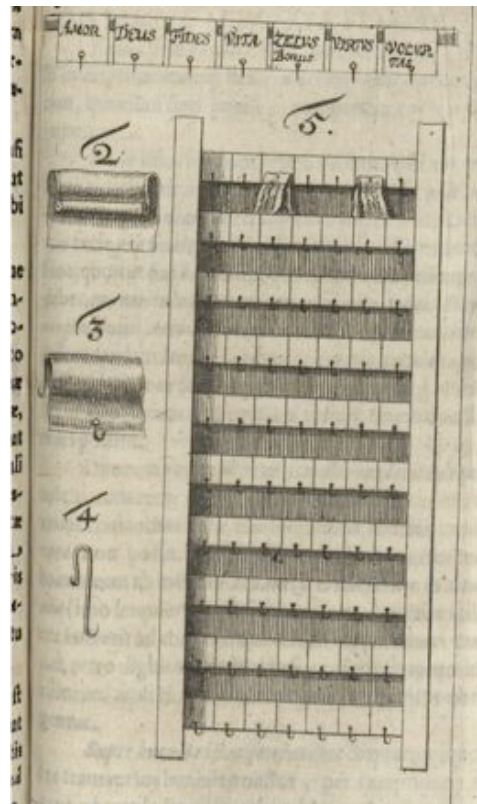
Pope, "The Dunciad," 1728





Strategies for Dealing with Information Overload

Note-taking system of Vincent Placcius, from *De arte excerpendi*, 1689





Strategies for dealing with information overload

Compendia and reference books (*Répertoires* or *Trésors*). Growth of alphabetical organization (presumes reading in parts.)

"I esteem these Collections extremely profitable and necessary, considering, the brevity of our life, and the multitude of things which we are now obliged to know, e're one can be reckoned amongst the number of learned men, do not permit us to do all of ourselves." Gabriel Naudé, 1661 [librarian to Mazarin]

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The Classificatory Urge: Thematic Organization

Ibn Qutayba (9th c.): "Book of the Best Traditions"

1. Power
2. War
3. Nobility
4. Character
5. Learning and eloquence
6. Asceticism
7. Friendship
8. Prayer
9. Food
10. Women

فقالوا: "بايع." فقال: "إن أنا لم أفعل فمه؟"
فقالوا: "أذا و الله الذي لا اله الا هو، نضرب عنقك!"
فقال: "أذا تقتلون عبد الله و احبا رسوله!"
فقال عمر: "أما عبد الله، فنعيم. أما اخو رسوله، فلا!"
وابو بكر ساكت لا يتكلم. فقال له عمر: "ألا تأمر فيه بامرك؟"
فقال: "ألا أكرهه على شيء ما كانت فاطمة الى جنبه."



The Classificatory Urge: Thematic Organization

Vincent de Beauvais, *Speculum triplex*,
1244, in 3 divisions:

Speculum naturale: God, angels & devils, man,
the creation, and natural history

Speculum doctrinale: Grammar, logic, ethics,
medicine, crafts...

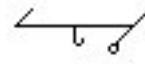
Speculum historiale: History of the world...






Wilkins' universal language

Explaining the symbol



The generic character  doth signify the genus of space. the acute angle on the left side doth denote the first difference, which is Time. The other affix signifies the ninth species under the differences, which is Everness. The Loop at the end of this affix denotes the word is to be used adverbially; so that the sense of it must be the same which we express by the phrase, For Ever and Ever.

John Wilkins "'An Essay Towards a Real Character and a Philosophical Language' 1668

de, an element

deb, the first of the elements, fire

deba, a part of the element fire, a flame

"children would be able to learn this language without knowing it be artificial; afterwards, at school, they would discover it being an universal code and a secret encyclopaedia." Borges



Wilkins' universal language

... a certain Chinese encyclopaedia entitled 'Celestial Empire of benevolent Knowledge'. In its remote pages it is written that the animals are divided into: (a) belonging to the emperor, (b) embalmed, (c) tame, (d) sucking pigs, (e) sirens, (f) fabulous, (g) stray dogs, (h) included in the present classification, (i) frenzied, (j) innumerable, (k) drawn with a very fine camelhair brush, (l) et cetera, (m) having just broken the water pitcher, (n) that from a long way off look like flies.

there is no classification of the Universe not being arbitrary and full of conjectures

Jorge Luis Borges



New Schemes of Organization: Philosophical Influences



Francis Bacon's scheme puts man at the center:

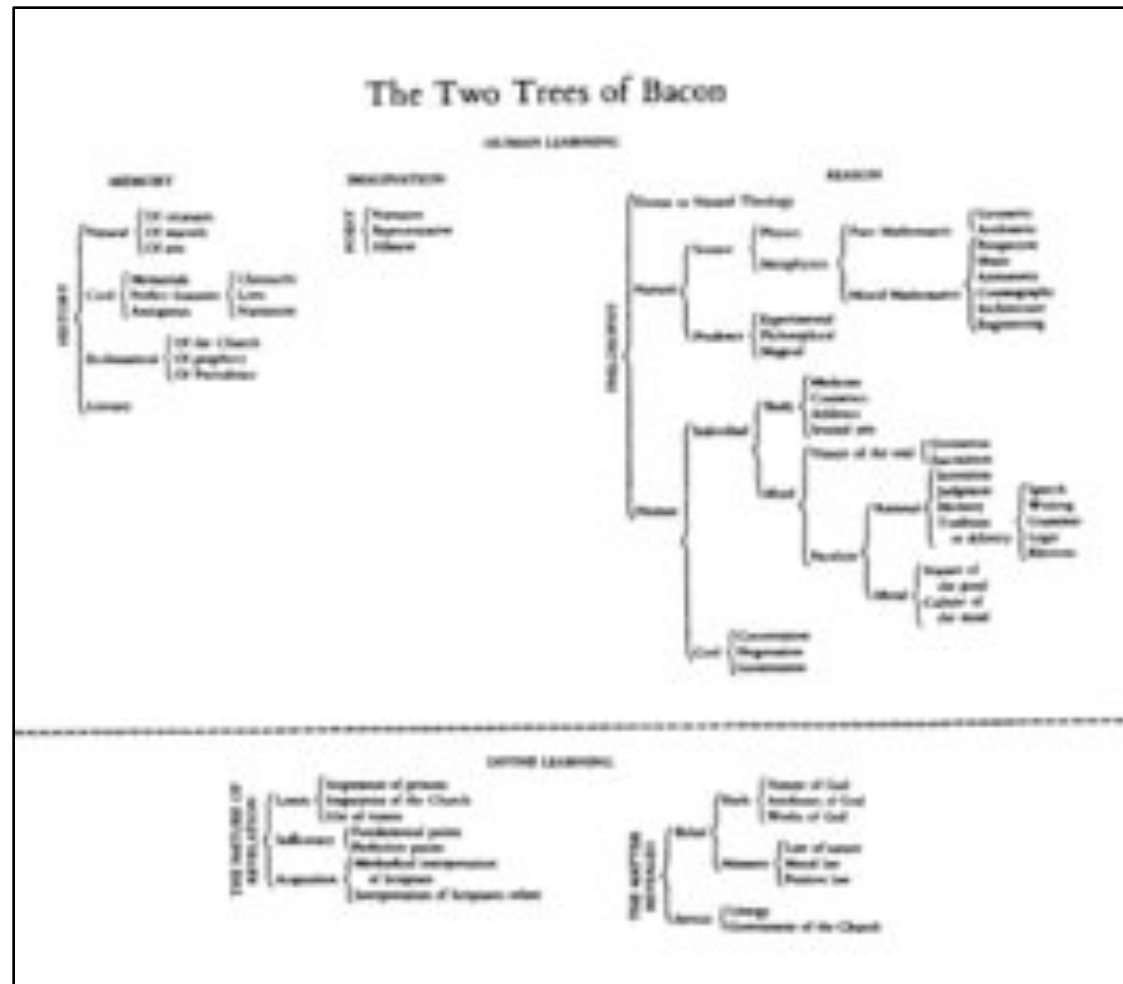
Nature (astronomy, meteorology, etc.).

Man (anatomy, powers, actions),

Man acting on nature (medicine, visual arts, arithmetic),,,

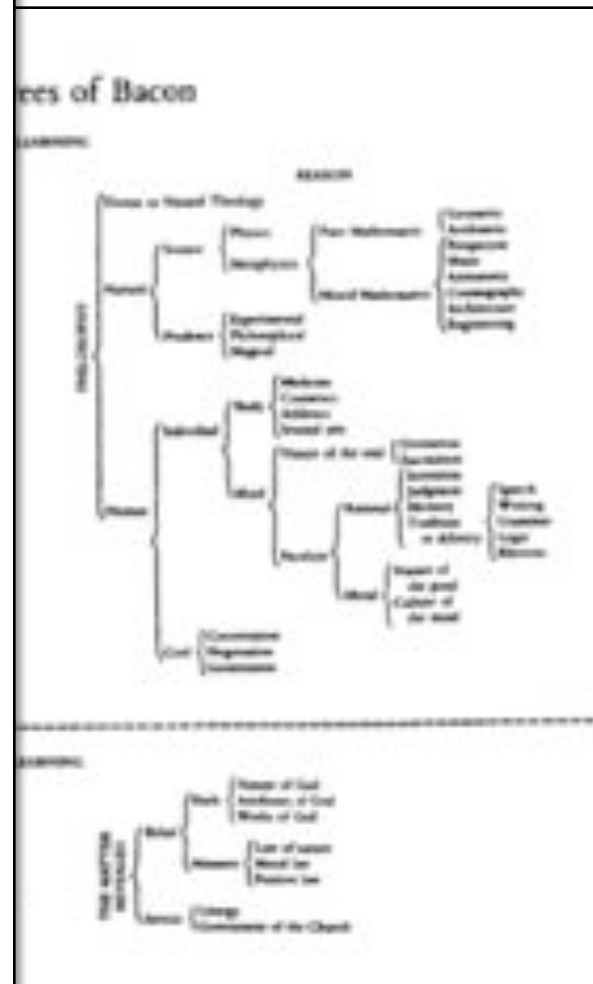


The Tree of Bacon





The Tree of Bacon





New Schemes of Organization: Didactic Objectives

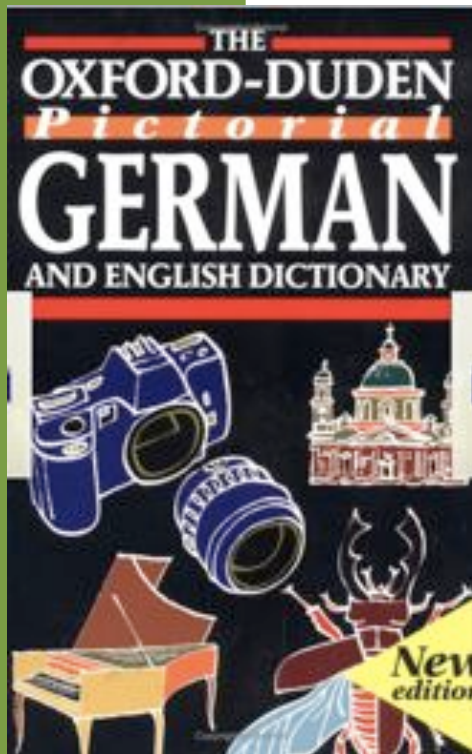
Comenius (Amos Komensky), *Orbis sensualium pictus*, 1658

1. Elements, firmament, fire, meteors
2. Waters, earths, stones, metals,
3. Trees, fruits, herbs, shrubs
4. Animals
5. Man and his body...
20. Providence, God and the angels,,,





Comenius's Descendants





Comenius's Descendants

Peter Marc Roget: 1779-1869



P. M. Roget.

THESAURUS
OF
ENGLISH WORDS AND PHRASES,
CLASSIFIED AND ARRANGED
IN A
TO FACILITATE THE EXPRESSION OF IDEAS
AND USED IN
LITERARY COMPOSITION.

BY
PETER MARK ROGET, M.D., F.R.S.

PHYSICIAN OF THE ROYAL COLLEGE OF PHYSICIANS;
MEMBER OF THE SENATE OF THE UNIVERSITY OF CAMBRIDGE;
OF THE ACADEMY AND HONORARIAL DOCTOR OF BOURNONGNE, STRASBURG,
BRUNN, GRAZ, VINDOBONA, BUDAPEST, VIENNA, AND BOLOGNA.

EDITOR OF
THE "SYNONYMICAL TABLES OF ENGLISH AND FRENCH VOCABULARY,"
1811.

"It is impossible we should thoroughly understand the nature of the world, unless we
first properly consider and arrange the various notions." — "The Republic."

FOURTH EDITION, ENLARGED AND IMPROVED.



Comenius's Descendants



P. M. Roget.

Peter Marc Roget: 1779-1869

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DUBLIN, OXFORD, NEW YORK, BANGOR, STAM, AND BIRMINGHAM.
Author of
the "MAGNETIC TREATISE ON ANIMAL AND VEGETABLE MENTALITY,"
&c.
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PLAN OF CLASSIFICATION.

Class.	Sect.	No.
I. ABSTRACT RELATIONS	1. EXISTENCE	1-8
	2. RELATION	9-24
	3. QUANTITY	25-57
	4. ORDER	58-83
	5. NUMBER	84-105
	6. TIME	106-139
	7. CHANGE	140-152
	8. CAUSATION	153-179
II. SPACE	1. GENERALLY	180-191
	2. DIMENSIONS	192-239
	3. FORM	240-263
	4. MOTION	264-315
III. MATTER	1. GENERALLY	316-320
	2. INORGANIC	321-356
	3. ORGANIC	357-449
IV. INTELLECT	1. FORMATION OF IDEAS	450-515
	2. COMMUNICATION OF IDEAS	516-599
V. VOLITION	1. INDIVIDUAL	600-736
	2. INTERSOCIAL	737-819
VI. AFFECTIONS	1. GENERALLY	820-826
	2. PERSONAL	827-887
	3. SYMPATHETIC	888-921
	4. MORAL	922-975
	5. RELIGIOUS	976-1000



The Emergence of Alphabetical Order

Alphabetical order already in use

Catholic index of prohibited books; Erasmus's proverbs, etc.

Practical advantages:

Facilitates access to particular entries (assuming a certain mode of reading)

Philosophically modest

"It might be more for the general interest of learning, to have the partitions thrown down, and the whole laid in common again, under one undistinguished name." Ephraim Chambers

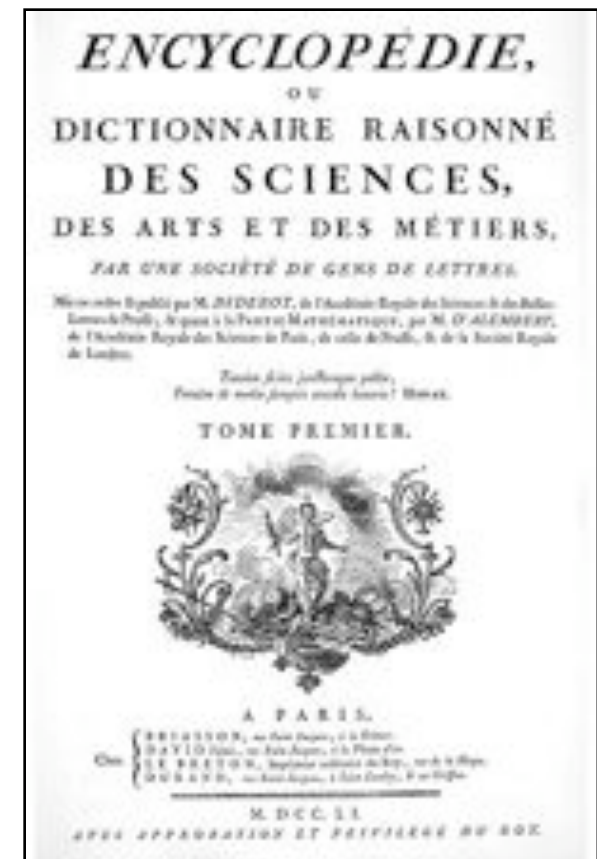


The Encyclopédie



Denis Diderot

First vol. appears in 1751; last in 1772





Mixing Theme and Alphabet



Jean d'Alembert

[T]he encyclopedic arrangement of our knowledge ... consists of collecting knowledge into the smallest area possible and of placing the philosopher at a vantage point, so to speak, high above this vast labyrinth, whence he can perceive the principle sciences and the arts simultaneously. From there he can see at a glance the objects of their speculations and the operations which can be made on these objects; he can discern the general branches of human knowledge, the points that separate or unite them; and sometimes he can even glimpse the secrets that relate them to one another. It is a kind of world map which is to show the principle countries, their position and their mutual dependence, the road that leads directly from one to the other.



The Enlightenment Plan



Jean d'Alembert

"The tree of human knowledge could be formed in several ways, either by relating different knowledge to the diverse faculties of our mind or by relating it to the things that it has as its object. The difficulty was greatest where it involved the most arbitrariness. But how could there not be arbitrariness? Nature presents us only with particular things, infinite in number and without firmly established divisions. Everything shades off into everything else by imperceptible nuances"

The Tree of Diderot & D'Alembert

ESSAI D'UNE DISTRIBUTION GÉNÉALOGIQUE
DES SCIENCES ET DES ARTS PRINCIPAUX.

Selon l'Explication détaillée du Système
des Connaissances Humaines dans le Discours
préliminaire des Editeurs de l'Encyclopédie
publiée par M. Diderot et M. d'Alembert,
À Paris en 1751

Reduit en cette forme pour
découvrir la connaissance
Humaine d'un coup d'oeil.

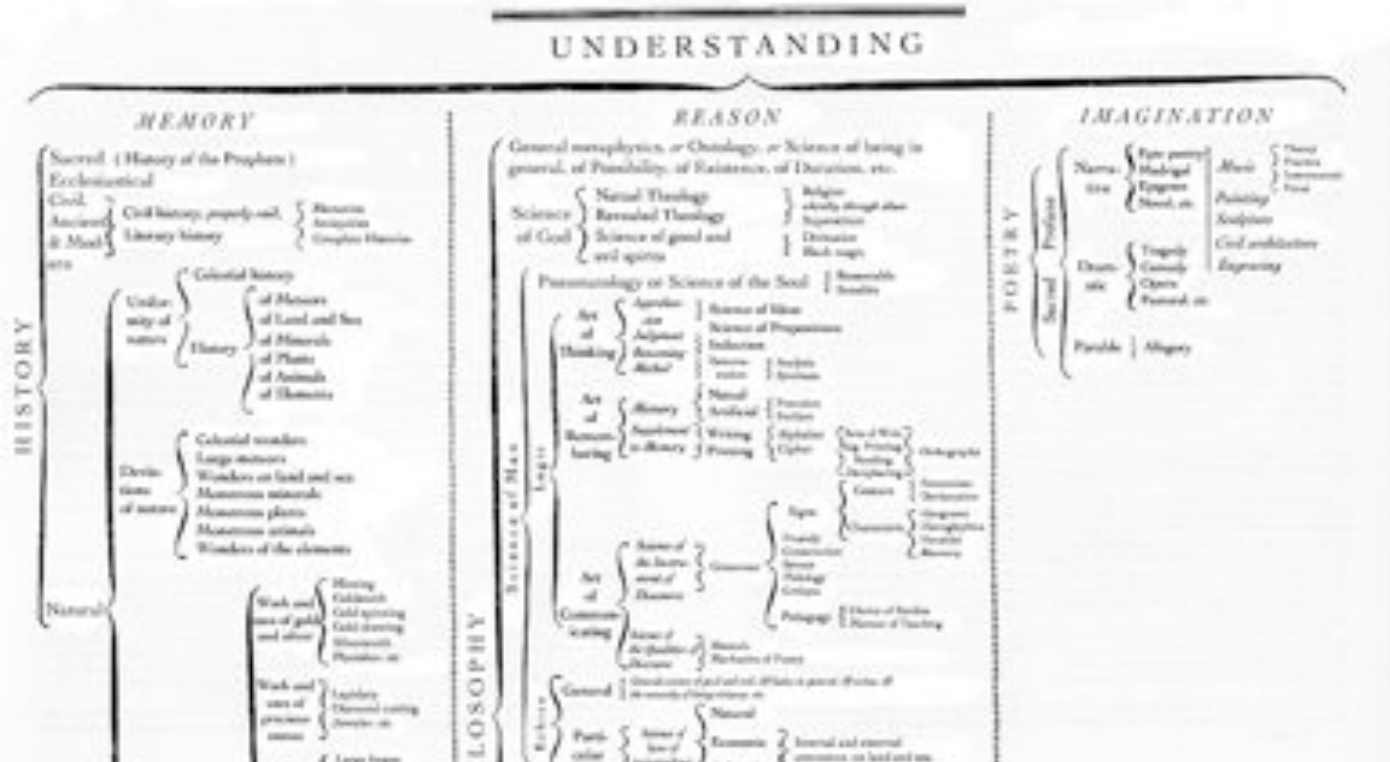
Par Chrétien Frederic Guillaume Roth,
À Weimar, 1769





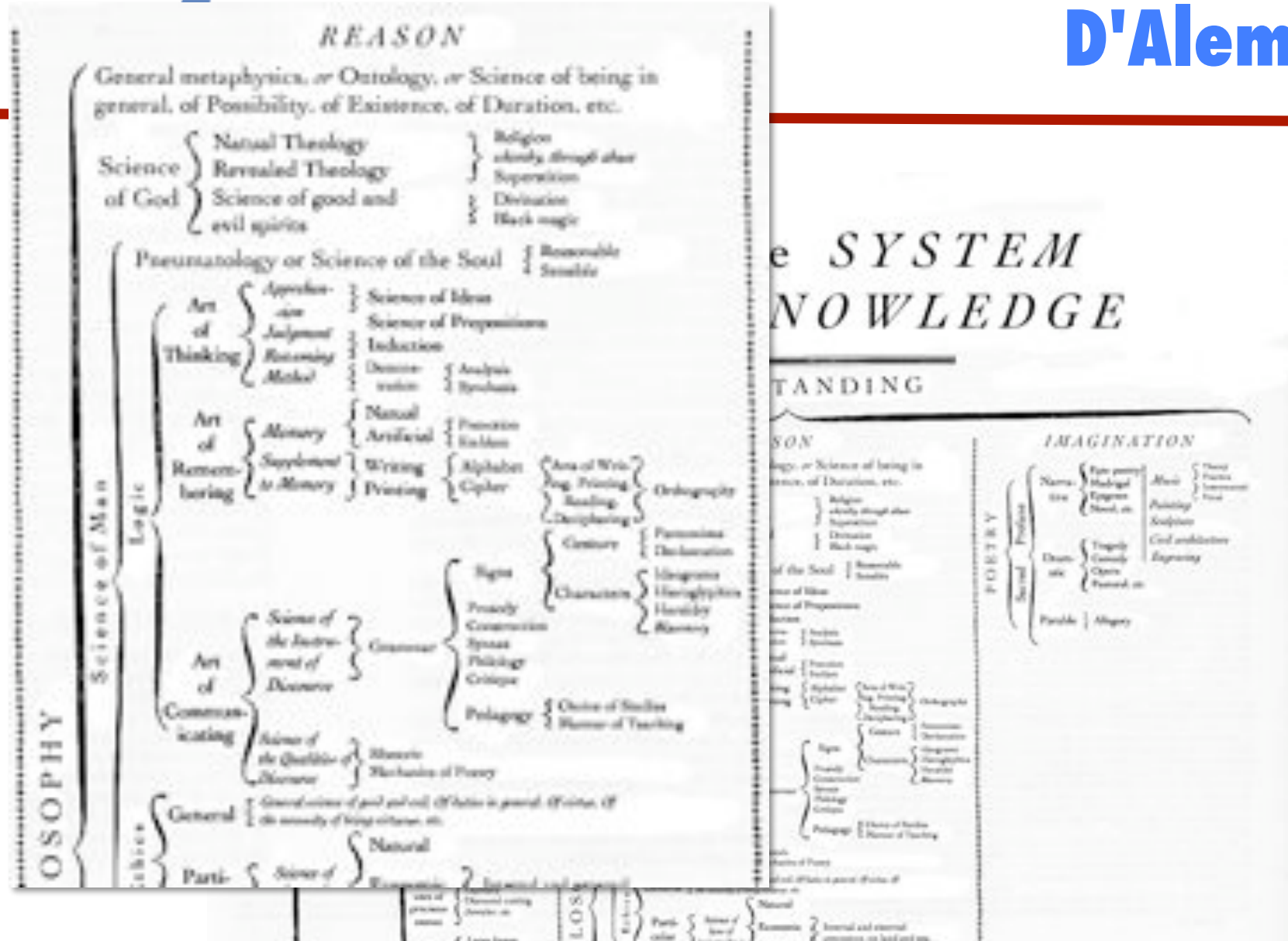
The Tree of Diderot & D'Alembert

MAP of the *SYSTEM* of *HUMAN KNOWLEDGE*





The Tree of Diderot & D'Alembert





Revisiting Thematic Organization



S.T. Coleridge, *Encyclopedia Metropolitana*, 1817-35.
Emphasized relations.

Method, therefore, becomes natural to the mind which has been accustomed to contemplate not things only, or for their own sake alone, but likewise and chiefly the relations of things, either their relations to each other, or to the observer, or to the state and apprehension of the hearers. To enumerate and analyze these relations, with the conditions under which alone they are discoverable, is to teach the science of method..



Revisiting Thematic Organization



S.T. Coleridge, *Encyclopedia Metropolitana*, 1817-35. Four Sections:

I. Pure Sciences, 2 vols., 1,813 pages, 16 plates, 28 treatises, includes grammar, law and theology;

II. Mixed and Applied Sciences, 6 vols., 5,391 pages, 437 plates, 42 treatises, including fine arts, useful arts, natural history and its application, the medical sciences;

III. History and Biography, 5 vols., 4,458 pages, 7 maps, containing biography (135 essays) chronologically arranged, interspersed with (210) chapters on history (to 1815), as the most philosophical, interesting and natural form.

IV. Miscellaneous and lexicographical, 13 vols., 10,338 pages, 105 plates, including geography, a dictionary of English and descriptive natural history.



Revisiting Thematic Organization

1974: 15th edition of the *Encyclopedia Britannica* divided the Micropædia (short articles) the Macropædia (major articles) and the Propædia (Outline of Knowledge).

Pop

- Adult contemporary music
- Adult oriented pop music
- Adult standards
- Afpop
- Arab pop
- Austropop
- Baroque pop
- Britpop
- Bastard pop
- Brazilian pop
- Bubblegum pop
- Chinese pop
- Contemporary Christian
- Country pop
- Dance-pop
- Disco
- Disco polo
- Dream pop
- Electropop/Technopop
- Eurobeat
- Euro disco
- Europop
- Experimental pop music
- French pop
- Greek Laika pop
- Hindi pop
- Hong Kong and Cant
- Hong Kong English pr
- Hot Adult Contempor

Wikipedia: The logical end destructuring?

Ilma Julieta Urrutia Chang was Guatemala's national representative for the major beauty pageants in 1984.

The N battery is a type of battery. It has a battery. It has a diameter of 12 mm and a height of 30.2 mm. For a typical alkaline battery, the N size weighs 9 grams.

A System Requirements Specification (SRS) is a document where the requirements of a system that is planned to be developed are listed.

Protestants in Eritrea are about 91,232, which are 2% of the population.

Categories: 1926 births | 1991 deaths | African American musicians | American jazz bandleaders | American jazz composers | American jazz trumpeters | American songwriters | Avant-garde trumpeters | Bebop trumpeters | Cool jazz trumpeters | Deaths from stroke | Deaths from respiratory failure | People with sickle-cell disease | Grammy Award winners | Grammy Lifetime Achievement Award winners | Columbia Records artists | Capitol Records artists | Hard-bop trumpeters | Musicians from Illinois | Juilliard School of Music alumni | Miles Davis | Modal jazz trumpeters | People from Madison County, Illinois | People from St. Clair County, Illinois | Rock and Roll Hall of Fame inductees | St. Louis music | Third Stream trumpeters | Deaths from pneumonia | Burials at Woodlawn Cemetery (The Bronx) | Infectious disease deaths in California



III. The Emergence of the Modern Dictionary



The Emergence of the Vernacular

Concerns that the vernacular (i.e., ordinary spoken) language is not an adequate vehicle for philosophy, history, etc.

Besyde Latyne, our langage is imperfite,
Quhilk in sum part, is the cause and the wyte [fault],
Quhy that Virgillis vers, the ornate bewte
In till our toung, may not obseruit be
For that bene Latyne wordes, mony ane
That in our leid ganand [suitable language], translation has nane....
Gawin Douglas, 1553

For I to no other ende removed hym from his naturall and loftye
Style to our own corrput and base, or as al men affyrme it: most
barbarous Language: but onely to satisfye the instant requestes of a
few my familiar frendes.

Alex. Neville, preface to translation of Seneca, 1563

Shall English be so poore, and rudely-base
As not be able (through mere penury)
To tell what French hath said with gallant grace,
And most tongues else of less facunditie?

John Davies, 1618



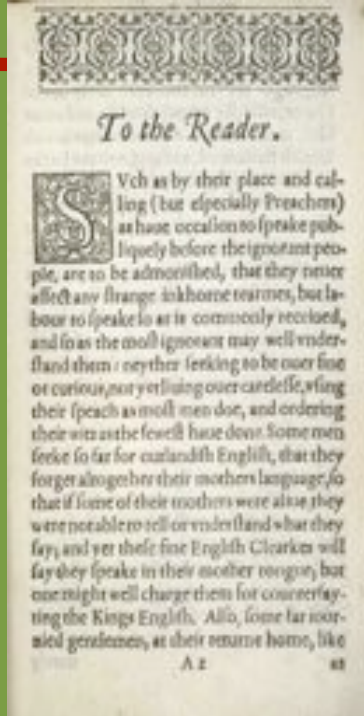
Refining the Vernacular

"Inkhorn words" -- learned words coined from Greek or Latin: *absurdity*, *dismiss*, *celebrate*, *encyclopedia*, *habitual*, *ingenious* (but also *eximious*, "excellent"; *obstetate*, "bear witness"; *adnichilate*, "reduce to nothing")

Among all other lessons this should first be learned, that wee never affect any straunge ynkehorne termes, but to speake as is commonly received: neither seeking to be over fine or yet living over-carelesse, using our speche as most men doe, and ordering our wittes as the fewest have done. Thomas Wilson, *Arte of Rhetorique*, 1553



Refining & Codifying the Language



Advertisement to
Cawdrey's Table
Alphabeticall

Cawdrey, 1604:

Some men seek so far for outlandish English, that they forget altogether their mothers language, so that if some of their mothers were alive, they were not able to tell, or understand what they say, and yet these fine English Clearks, will say they speak in their mother tongue; but one might well charge them, for counterfeyting the Kings English. Also, some far journied gentlemen, at their returne home, like as they love to go in forraine apparrell, so they will poulder their talke with over-sea language.... Doth any wise man think, that wit resteth in strange words, or els standeth it not in wholesome matter, and apt declaring of a mans mind? Do we not speak, because we would have other to understand us? or is not the tongue given for this end, that one might know what another meaneth?



Early Wordbooks

Early dictionaries are usually bilingual (e.g., Latin-Cornish), organized thematically.

A
 Table Alphabeticall, con-
 teyning and teaching the true
 vwriting, and vnderstanding of hard
 vsuall English wordes, borrowed from
 the Hebrew, Greeke, Latine,
 or French. &c.

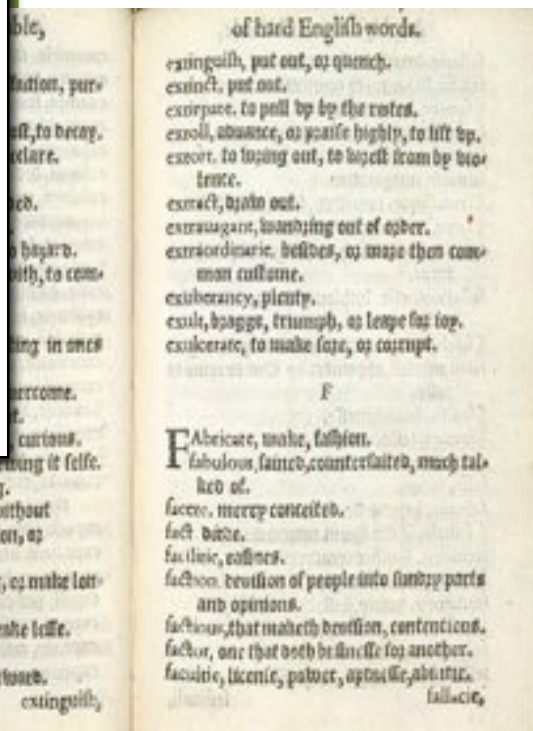
With the interpretation thereof by
 plaine English words, gathered for the benefit &
 helpe of Ladies, Gentlewomen, or any other
 unskillfull persons.

Whereby they may the more easilie
 and better vnderstand many hard English
 wordes, vvhich they shall heare or read in
 Scriptures, Sermons, or elsewhere, and also
 be made able to vse the same aptly
 themselues.

Legere, et non intelligere, negligere est.
 As good not read, as not to vnderstand.

AT LONDON,
 Printed by I. R. for Edmund Wea-
 ter, & are to be sold at his shop at the great
 North doore of Paules Church.
 1604.

Robert Cawdrey's Table Alphabeticall of 1604, the first English dictionary to explain the
 exotic to the 'unskillfull'.



First monolingual dictionaries appear in early c. 17. with Robert Cawdrey's *Table Alphabeticall of Hard Usual English Words*, 1604 ("for the benefit and helpe of Ladies, Gentlewomen, or other unskillful persons")



The desire for "illustration" in France

Would to God that some noble heart could employ himself in setting out rules for our French language.. If it is not given rules, we will find that every fifty years the French language will have been changed and perverted in very large measure. G. Tory, 1529

Formation of the Académie Française



L'habit vert et l'épée.

Modeled on the accademia della Crusca, Florence (1583), which published 1st dict. In 1612

Formed in 1635 by Cardinal Richelieu; 40 members ("les immortels")

1st ed. of dictionary appears in 1694 (6 or 7 others since then).

Small direct effect on the language.

Model for other language academies in Sweden, Spain, Romania, Portugal, Russia, etc. with varying degrees of influence

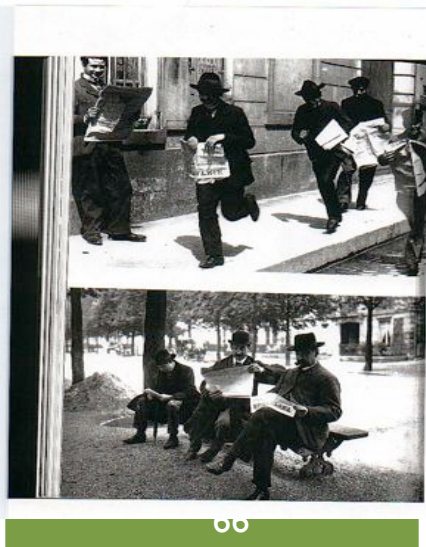




Print, the Public, and "Imagined Communities"



[Britain] has become a nation of readers. --Samuel Johnson, 1781
The newspaper reader, observing exact replicas of his own paper being consumed by his subway, barbershop, or residential neighbors, is continually reassured that the imagined world is visibly rooted in everyday life...creating that remarkable confidence of community in anonymity which is the hallmark of modern nations. --Benedict Anderson, *Imagined Communities*.





Linguistic anxiety and the public sphere

How to coordinate public opinion via an impersonal print discourse between people who are anonymous to one another, in the absence of context...



The Growing Sense of Crisis



John Dryden (1693): "we have yet no prosodia, not so much as a tolerable dictionary, or a grammar, so that our language is in a manner barbarous.



William Warburton (1747): the English language is "destitute of a Test or Standard to apply to, in cases of doubt or difficulty... For we have neither Grammar nor Dictionary, neither Chart nor Compass, to guide us through this wide sea of Words."



An academy for English?



1697 Daniel Defoe proposes establishing an academy to be "wholly composed of gentlemen, whereof twelve to be of the nobility, if possible, and twelve private gentlemen, and a class of twelve to be left open for mere merit....The voice of this society should be sufficient authority for the use of words."



Swift's "Proposal" 1712



Desire to "ascertain" (fix) the language:

A major concern among writers -- cf involvement of Addison, Swift, Pope, Johnson, etc.

1712: Swift writes "A Proposal for Correcting, Improving, and Ascertaining the English Tongue in a Letter to ..."



My Lord; I do here in the Name of all the Learned and Polite Persons of the Nation, complain to your Lordship, as First Minister, that our Language is extremely imperfect; that its daily Improvements are by no means in proportion to its daily Corruptions; and the Pretenders to polish and refine it, have chiefly multiplied Abuses and Absurdities; and, that in many Instances, it offends against every Part of Grammar. ..



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Swift's "Proposal" 1712

if [the language] were once refined to a certain Standard, perhaps there might be Ways found out to fix it for ever; or at least till we are invaded and made a Conquest by some other State...



In order to reform our Language, I conceive, My Lord, that a free judicious Choice should be made of such Persons, as are generally allowed to be best qualified for such a Work, without any regard to Quality, Party, or Profession. These, to a certain Number at least, should assemble at some appointed Time and Place, and fix on Rules by which they design to proceed.





Reactions to Swift's Proposal

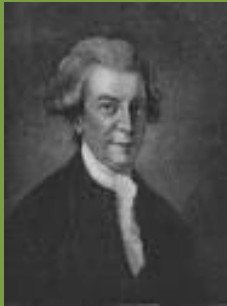
I should rejoice with him [Swift] if a way could be found out to *fix our language for ever*, that like the *Spanish* cloak, it might always be in fashion.

John Oldmixon, on Swift's Proposal...



The Growing Sense of Crisis

Continuing desire to fix the language:



"Suffer not our Shakespear, and our Milton, to become two or three centuries hence what Chaucer is at present, the study only of a few poring antiquarians, and in an age or two more the victims of bookworms." Thomas Sheridan



Cf Alexander Pope, "Essay on Criticism"
Short is the date, alas! of modern rhymes,
And 'tis but just to let them live betimes.
No longer now that Golden Age appears,
When partiarch wits survived a thousand years:
Now length of fame (our second life) is lost,
And bare threescore is all ev'n that can boast:
Our sons their fathers' failing language see,
And such as Chaucer is shall Dryden be.



The Rejection of an Academy

If an academy should be established for the cultivation of our stile, which I, who can never wish to see dependance multiplied, hope the spirit of English liberty will hinder or destroy...

Johnson, Preface to the *Dictionary*



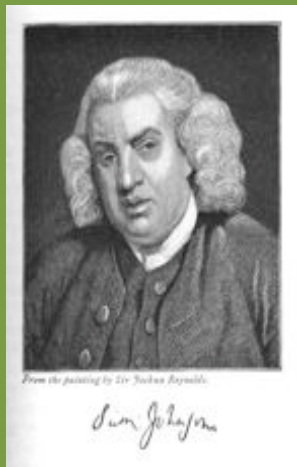
As to a publick academy.. I think it not only unsuitable to the genius of a *free nation*, but in itself ill calculated to reform and fix a language. We need make no doubt but that the best forms of speech will, in time, establish themselves by their own superior excellence...

Joseph Priestly, *Rudiments of Grammar*, 1761

Contrast the role of the state in French....



Johnson to the Rescue



1746: J. approached by "conger" of booksellers to make dict. for 1500 guineas

Johnson installs himself and his amensenses in Gough Square to begin work on the Dictionary

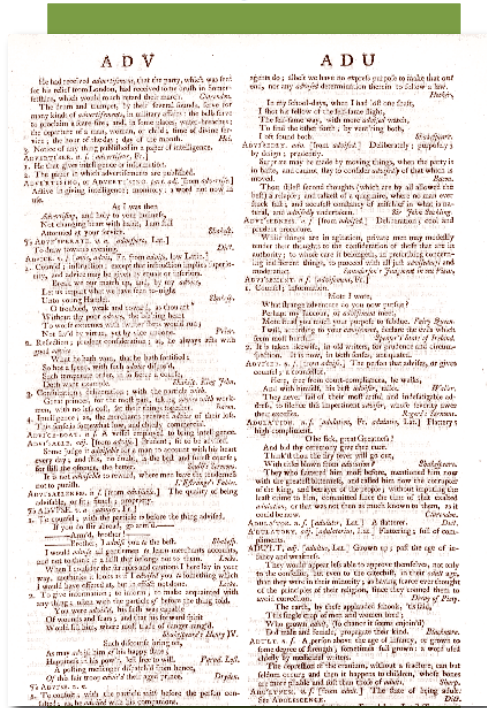
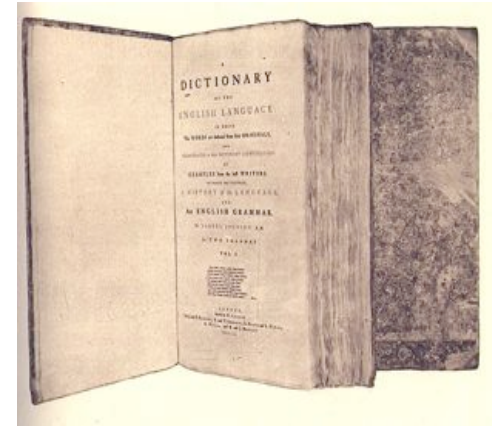
1747: The "Plan of an English Dictionary" appears





Johnson to the Rescue

1755 appearance of Johnson's Dictionary of the English Language.



ADV

He had several advertisements for the party, which was first for the relief of Lord London, had received some death in former battles, which would much retard their march. *Quoted.*

The form and company by their former friends, gave for many years of conversation, in quiet society: the talk here is to question a year ago, and in face clean, were brought to the appearance of a man, who in a short time of time was, the best of health, in a day of six months.

1. To give notice of the publication of a paper or intelligence.

2. To give notice of a person's death.

3. To give notice of a person's death.

4. To give notice of a person's death.

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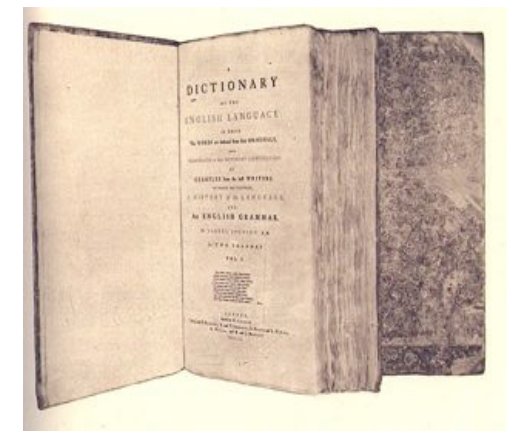
He adulterers still: his thoughts lye with a whore. *B. Johns.*
ADULTERANT. *n. f.* [*adulterans*, Lat.] The person or thing which adulterates.
To ADULTERATE. *v. a.* [*adulterer*, Fr. *adultero*, Lat.]
 I. To commit adultery.
 But fortune, oh!
Adulterate hourly with thine uncle John;
 And with her golden hand hath pluckt on France.
Shakesp. King John.
 2. To corrupt by some foreign admixture; to contaminate.
 Common pot-ashes, bought of them that sell it in shops, who are not so foolishly knavish, as to *adulterate* them with salt-petre, which is much dearer than pot-ashes. *Boyle.*
 Could a man be composed to such an advantage of constitution,



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Some Johnsonian Definitions

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Patron: One who countenances, supports or protects. Commonly a wretch who supports with insolence, and is paid with flattery.



The Success of the *Dictionary*



The Dictionary, with a Grammar and History of the English Language, being now at length published, in two volumes folio, the world contemplated with wonder so stupendous a work atchieved by one man, while other countries had thought such undertakings fit only for whole academies.

James Boswell, *Life of Johnson*



The Success of the *Dictionary*



Talk of war with a Briton, he'll boldly advance,
That one English soldier will beat ten of France,
Would we alter the boast from the sword to the pen,
Our odds are still greater, still greater our men . . .
First Shakspeare and Milton, like Gods in the fight,
Have put their whole drama and epick to flight;
In satires, epistles, and odes, would they cope,
Their numbers retreat before Dryden and Pope;
And Johnson, well-arm'd like a hero of yore,
Has beat forty French, and will beat forty more!"

David Garrick



The Success of the Dictionary

At length, what many had wished, and many had attempted in vain, what seemed indeed to demand the united efforts of a number, the diligence and acuteness of a single man performed. The English Dictionary appeared; and, as the weight of truth and reason is irresistible, its authority has nearly fixed the external form of our language; and from its decisions few appeals have yet been made. Robert Nares, 1782

An accurate evaluation?

Johnson condemns words like *bully*, *coax*, and *job*.



Naturalizing the Dictionary

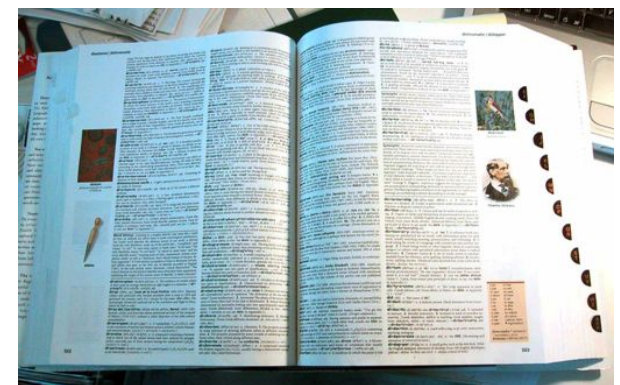
"The dictionary" like "the Periodic Table": Form answers to structure of represented domain + user needs...

The periodic table of the elements

	1A	2A	3A	4A	5A	6A	7A	8	1B	2B	3B	4B	5B	6B	7B	0		
1	H															He		
2	Li	Be											B	C	N	O	F	Ne
3	Na	Mg											Al	Si	P	S	Cl	Ar
4	K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr
5	Rb	Sr	Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd	In	Sn	Sb	Te	I	Xe
6	Cs	Ba	L	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg	Tl	Pb	Bi	Po	At	Rn
7	Fr	Ra	A															
	L	La	Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu		
	A	Ac	Th	Pa	U	Np	Pu	Am	Cm	Bk	Cf	Es	Fm	Md	No	Lr		

Legend:

- Metals
- Metalloids
- Non-metals
- Transition Metals
- Gases





Features of Johnson's Dictionary

Meanings illustrated by citations from English writers:
"The book written by books"

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The Didactic Uselessness of Definitions

Weakness of genus-differential definitions

disappointed MW: defeated in expectation or hope



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It doesn't happen



The Didactic Uselessness of Definitions

Weakness of genus-differentia definitions

Disappointed MW: defeated in expectation or hope

disappointment is when you expect something to happen

And you want it to happen

And when the time comes for it to happen

It doesn't happen

And you feel bad



The Symbolic Function of the Dictionary

LexisNexis(TM) Academic - Document List - Netscape

http://web.lexis-nexis.com/universe/doclist?_m=4b565940c6ab272709a52cc2df1a97Y36vchp=

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Sorted by Date
Sort by: Relevance
Clear

1. St. Petersburg Times, March 3, 2003 Monday, CITRUS TIMES; Pg. 2, 1344 words, Board's sudden opposition to toll road reveals favoritism
2. Pittsburgh Post-Gazette, February 9, 2003 Sunday, TWO STAR EDITION, Pg. B-7, 800 words, TOP OF THE CHARTS; TWENTY-FOUR YEARS OF CONSISTENT ADVICE FOR WRITERS



Defining "The Language"

Why include 'all the words'? Why bother to define simple words?

Cf defs in Nathan Bailey's dict., 1721:

cat: "a creature well known"

black: "a colour"

strawberry: "a well known fruit"



Defining the Compass of the Language

Let any man of correct taste cast his eye on such words as *denominable*, *opionatry*, *ariolation*, *assation*, *clancular*, and *comminuible*, and let him say whether a dictionary which gives *thousands* of such items, as *authorized English words*, is a safe standard of writing. Noah Webster on Johnson's *Dictionary*

Words have been admitted in the language that are not only disreputable in origin, not only offensive in all their associations, not only vulgar in essence, but unfit at all points for survival. The *New York Herald* (1890) on Funk & Wagnall's inclusion of *chesty* "bold"

"...that most monstrous of non-words." *Life Magazine* on Webster's *Third International's* inclusion of *irregardless*

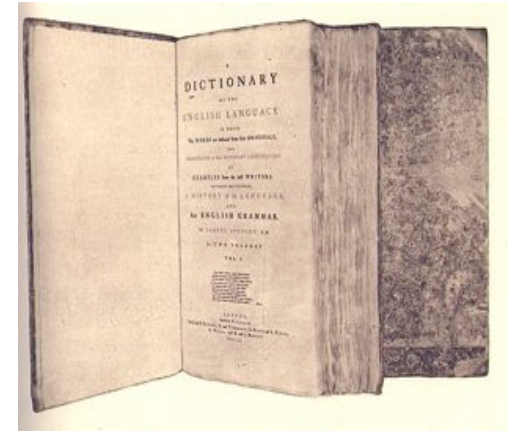
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Symbolism of the dictionary's form

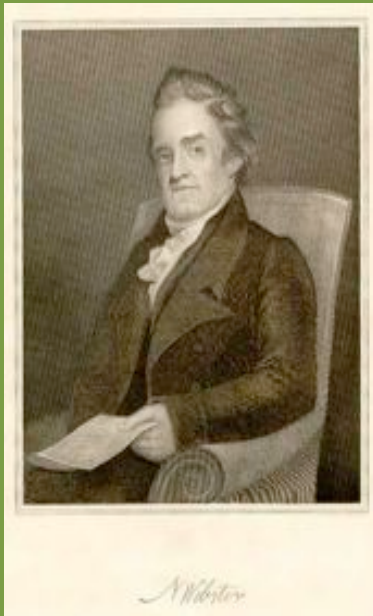
A monument, like a folio dictionary, is immovable and huge, inviolable and absolute in its expression of authority and its solidification of public memory; it exercises its authority as it represents it." (A. Reddick)

There is in [Johnson's *Dictionary*] a kind of architectural nobleness; it stands there like a great solid square-built edifice; you judge that a true builder did it." (Thos. Carlyle)





The Americanization of the Dictionary



Noah Webster

You have corrected the dangerous doctrines of European powers, correct now the languages you have imported... The American language will thus be as distinct as the government, free from all the follies of unphilosophical fashion, and resting upon truth as its only regulator. William Thornton, 1793.

From the changes in civil policy, manners, arts of life, and other circumstances attending the settlement of English colonies in America, most of the language of heraldry, hawking, hunting, and especially that of the old feudal and hierarchical establishments of England will become utterly extinct in this country; much of it already forms part of the neglected rubbish of antiquity. Noah Webster, 1806



The Americanization of the Dictionary



Webster

Cf Webster's Spelling reforms:
honor, theater, etc., but also
tung, iz...

"A capital advantage of this [spelling] reform in these States would be, that it would make a difference between the English orthography and the American.... I am confident that such an event is an object of vast political consequence."



Development of the Dictionary



1857-1928: Preparation of the OED; historical record of the entire language...

Abbreviate (ăbrĭvĭ,ĕt), *v.*, also 5-7 **abbreviate**. [f. ABBREVIATE *ppl. a.*; or on the analogy of *vbs.* so formed; see -ATE. A direct representative of L. *abbreviāre*; as ABRIDGE, and the obs. ABREVI, represent it indirectly, through OFr. *abregier* and mid. Fr. *abrĕvier*. Like the latter, *abbreviate*, was often spelt *a-breviate* in 5-7.] To make shorter, shorten, cut short in any way.

1530 PALSGR., *Iabreyvate*: I make a thyng shorte, *Jeabrega*. 1625 BACON *Essays* xxiv. 99 (1862) But it is one Thing to Abbreviate by Contracting, Another by Cutting off.

† 1. *trans.* To make a discourse shorter by omitting details and preserving the substance; to abridge, condense. *Obs.*

a 1450 *Chester Pl.* I. 2 (Sh. Soc.) This matter he abbreviated into playes twenty-foure. 1592 GREENE *Conny catching* III. 16 The queane abreviated her discourse. 1637 RALEIGH *Mahomet* 34 Abreviated out of two Arabique writers translated into Spanish. 1672 MANLEY *Interpreter* pref., I have omitted several Matters . . . contracted and abbreviated Others.

† b. To make an abstract or brief of, to epitomize. *Obs.*

c 1450 TREVISA *Higden's Polychr.* I. 21 (Rolls Ser.) Trogus Pompeius, in hys xlth iiii. bookes, allemoste of alle the storyes of the worlde, whom Iustinus his disciple did abbreviate. 1603 FLORIO *Montaigne* (1634) 627 To reade, to note, and to abbreviate Polibius. 1648-9 *The Kingdomes Weekly Intelligencer* Jan. 16 to 23 The high court of Justice did this day sit again concerning the triall of the King. The charge was brought in and abbreviated.

† c. *Math.* To reduce (a fraction) to lower terms. *Obs.*

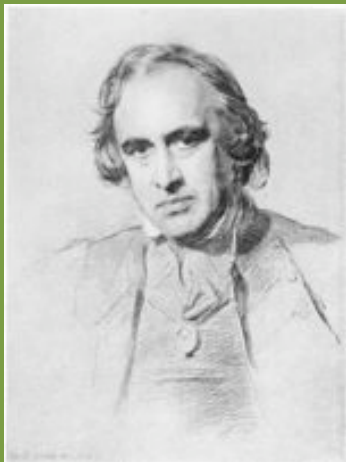
1796 *Mathem. Dict.* I. 2 To abbreviate fractions in arithmetic and algebra, is to lessen proportionally their terms, or the numerator and denominator.



James Murray



Political Significance of the OED



We could scarcely have a lesson on the growth of our English tongue, we could scarcely follow upon one of its significant words, without having unawares a lesson in English history as well, without not merely falling upon some curious fact illustrative of our national life, but learning also how the great heart which is beating at the centre of that life, was being gradually shaped and moulded.

Richard Chevenix Trench