UC Berkeley School of Information

The Organization of Knowledge

History of Information i218
Geoff Nunberg

Feb. 16, 2012

1

Where We Are

MAP of the SYSTEM of HUMAN KNOWLEDGE

UNDERSTANDING

year

2010
1980
1950
1900
1800
1700
1600
1200
600
400
0
500
3000
5000
30,000
50,000

week   1 2 3 4 5 6 7 8 10 11 12 13 14 15 week

2
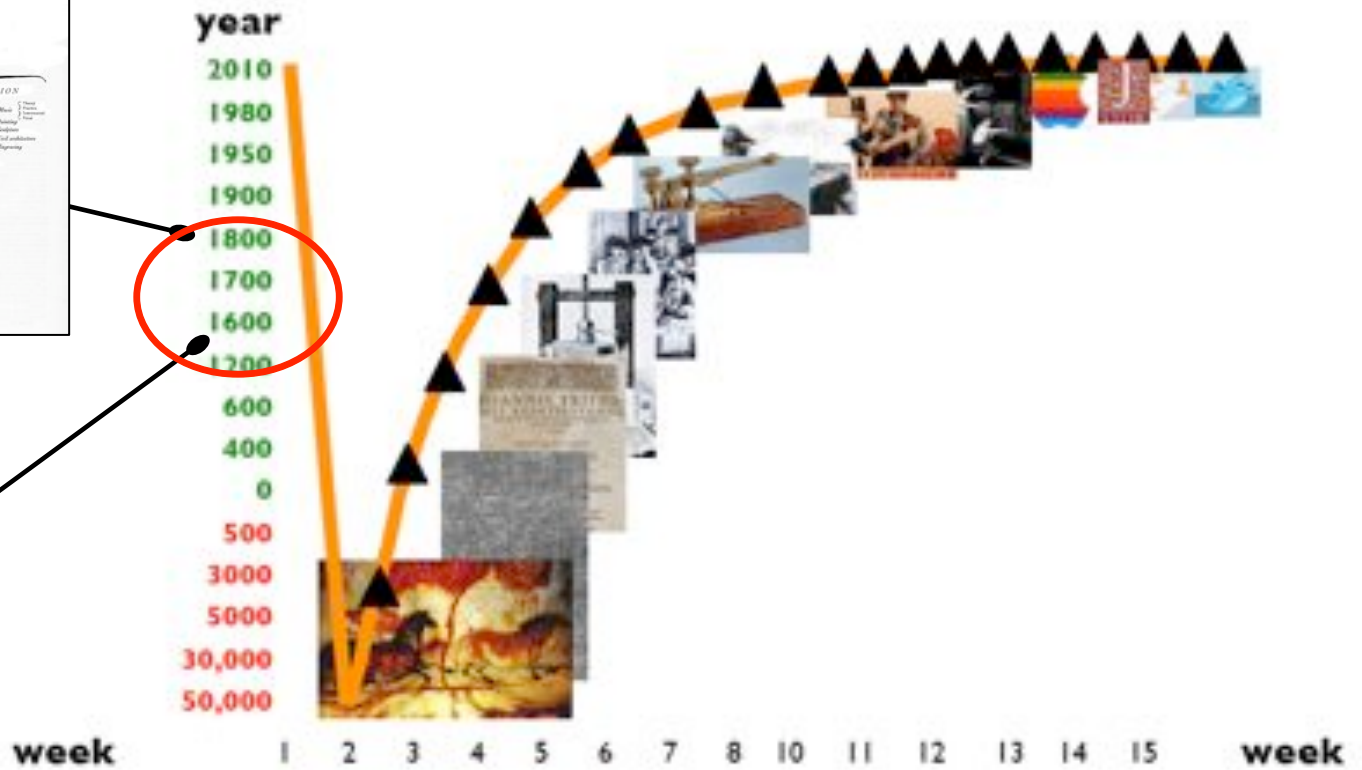
Defining "knowledge"

The shifting frame of knowledge; from Renaissance to Enlightenment

Early reactions to "information overload"

New conceptualizations of knowledge

The material representations of knowledge: encyclopedias, libraries, museums, dictionaries

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 advertising, intellectual property, propaganda, the scientific society (and science itself)**, the modern 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*

The political & social significance of "information"

Defining "knowledge"

Individual senses

Oxford English Dictionary:

• Acquaintance with a branch of learning, a language, or the like; *His knowledge of French is excellent.*

Acquaintance with a fact; perception, or certain information of, a fact or matter. *I know that we're late; She knows all the answers.*
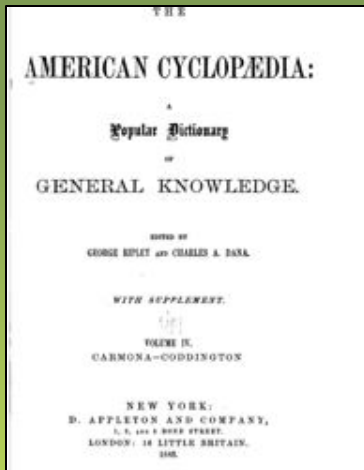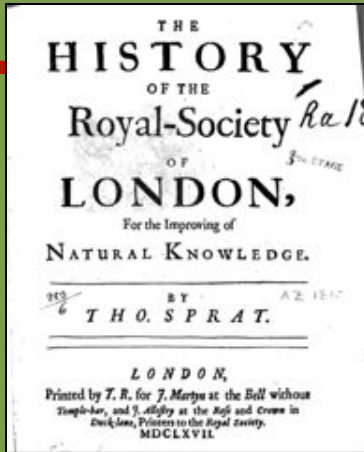
Collective sense

The sum of what is known. *All knowledge may becommodiously distributed into science and erudition.*

Collective knowledge: the missing roles

Collective sense: knowledge as a three-place relation

- The sum of what is known [about X] [by Y]

- Medical knowledge vs medical information: what is the difference?

- The difference between "knowlege" and "what is known."

What makes for "knowledge"?
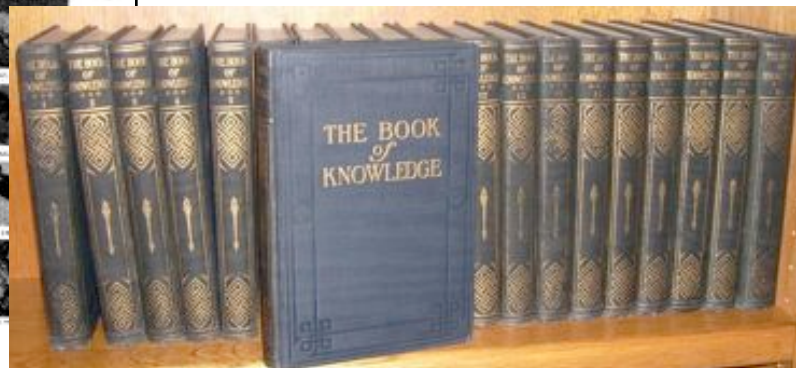
What qualifies something as (collective) knowledge?

P is collectively significant

"Nunberg's out of paper towels"

"Kimberly-Clark closed at $59.41 yesterday."

Paper towel consumption is 50% higher in America than in Europe.

Arthur Scott introduced the first paper towel in 1931.

Shifting Conceptions of Knowledge, 1500-1800

The archaeology of knowledge

How do we characterize conceptions of "knowledge" historically?

Explicit descriptions & theories

Models/images of knowledge in

Forms of institutions & practices (curriculum)

Material embodiments (library, museum, form of book)

Textual embodiments – encyclopedia, dictionary, compendium, bibliography

Metaphors & visualizations: field, tree, discipline, trésor, etc.

Shifting Conceptions of Knowledge, 1500-1800

Varieties of Renaissance knowledge:

scientiae/artes: "Ars sine scientia nihil est."

Higher vs lower

General/specialized

The "universal man" (*polymathia, pansophia*) "A man is able to learn many things and make himself universal in many excelllent arts." Matteo Palmieri, 1528

Book-learning vs knowledge of things

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

The 15ᵗʰ-Century Curriculum

Curriculum roughly uniform throughout Europe, enabled *peregrinatio academica*

"town and gown"

Universities of Europe in the XVI Century.
UNIVERSITIES. *Those founded before 1400 underlined.*

The 15th-Century Curriculum

3. TREE OF KNOWLEDGE, TITLE-PAGE OF R. LULL, ARBOR SCIENTIAE (1515: RPR. 1635); COPY IN CAMBRIDGE UNIVERSITY LIBRARY (F*.3.52)

System of knowledge is "closed"; built around classical sources and religious texts (courses organized around texts, not subjects)

Organization of knowledge is fixed and "natural"

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…)

But how can we tell that the system of knowledge has changed?

Breaking with the past

It would disgrace us, now that the wide spaces of the material globe, the lands and seas, have been broached and explored, if the limits of the intellectual globe should be should be set by the narrow discoveries of the ancients. Francis Bacon, *The Advancement of Learning*, 1605

Opening the World of Knowledge: Botany

Herbarum vivae eicones ("Living Pictures of Herbs") by Otto Brunfels, 1532. Matched Swiss & German plants to those known to Pliny and Discorides, ignoring differences, with residual *herbae nudae* ("naked plants")

Opening the world of knowledge

Valerius Cordus, *Historia plantarum* 1561 (1544), published posthumously by Conrad Gesner.

Records numerous plants not described by the ancients; emphasizes differences among similar plants.

By 1600, thousand of species are described, though in disorganized fashion.

Systems of description (not taxonomies) emerge. Plants bear four names (common, pharmacists' Latin, trad. Latin, Greek)

Drawing annotated by Gestner

VALERIUS CORDUS
Medicus excellens.

Opening the world of knowledge

John Ray, *Historia generalis plantarum*, 1686-

Classified 6100 plant species by seeds, seeds, fruit and leaves. Produced first modern defintion of the species.

> "... no surer criterion for determining species has occurred to me **than the distinguishing features that perpetuate themselves in propagation from seed**. Thus, no matter what variations occur in the individuals or the species, if they spring from the seed of one and the same plant, they are accidental variations and not such as to distinguish a species...

> "I reckon all Dogs to be of one Species, they mingling together in Generation, and the Breed of such Mixtures being prolifick"

The birth of "modern" classification

Systema naturae
1735

"I know no greater man on earth." Jean-Jacques Rousseau

The birth of "modern" classification

Plants classified into 24 classes according to length and number of stamens; further classified into orders etc. Established binary system of naming

Frontispiece to Linnaeus, *Hortus Cliffortianus* 1737

Plate 156: An illustration by Georg Dionysius Ehret for the Hortus Cliffortianus (1735–48) in which the Swedish plantsman, Carl Linnaeus, first began to work out his 'methodus plantarum sexualis', grouping plants according to the number and arrangement of their stamens

Organizing Knowledge Responses to Early Modern "Information Overload"

Linneaus, index card, ca 1760

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

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

TOO MUCH TO KNOW

Managing Scholarly Information before the Modern Age

ANN M. BLAIR
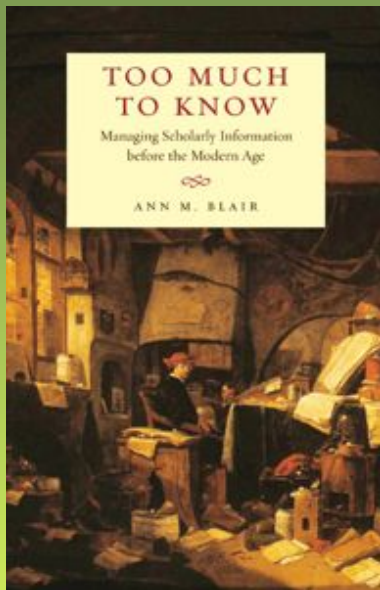
Increasing number of books

Number of titles printed in England: (from Wm. St. Clair, *Reading Nation*)

1630s	600
1640s	1,600
1650s	1,200
1660s	800
1670s	1,000
1680s	1,500
1690s	1,400
1700-50	500
1750-89	600
1790-1800	800
1800-1810	800
By 1827	1,000

("rising fast")

Size of personal libraries

- Personal library of typical French magistrate, 15th c. 60 books
- Montaigne, late 16th c. 1000 books
- Montesquieu, early 18th 3000 books

The endless anxiety...

It will soon be the employment of a lifetime merely to learn [books'] names. Many a man of passable information at the present day reads scarcely anything but reviews, and before long, a man of erudition will be little better than a mere walking catalogue Washington Irving, 1822

Books are not only printed, but in a great measure written and sold by machinery.... Every little sect among us, Unitarians, Utilitarians, Anabaptists, Phrenologists, must have its periodical, its monthly or quarterly magazine, hanging out like its windmill … to grind meal for society. Thomas Carlyle, 1840

The endless anxiety…

Something has happened in the last hundred years to change the relation of the written word to daily life. Whether it is the records we have to keep in every business and profession or the ceaseless communicating at a distance which modern transport and industry require, the world's work is now unmanagenable, unthinkable, without literature. … A committee won't sit if its drivelings are not destined for print. Even an interoffice memo goes out in sixteen copies. [There is a] huge number of activities which (it would seem) exist only to bombard us with paper…

Jacques Barzun, 1954

The endless anxiety…

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.

1983

The endless anxiety…

Relative to your current position, an exponential curve looks just as scary wherever you get on board. G Nunberg, *floreat* 2012

The Reorganization of Libraries

Gabriel Naudé proposes library organization scheme to "find books without labor, without trouble, and without confusion." (1627)

Bibliothèque Mazarine (1643)

Creation of "reference" works

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

Répertoires divided into:

Dictionaries (& onomasticons); Florilegia (collections of sayings, etc).; commonplace books; miscellanies…

"I esteem these Collections extreamly 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

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

E-L. Boulée, plan for the Bibliothèque du Roi, 1785

Men of good will have extracted the substance of a thousand volumes and passed it in its entirety into a single small duodecimo, a bit like skillful chemists who press out the essence of flowers to concentrate it in a phial while throwing the dregs away."

Louis-Sebastian Mercier, *L'An 2440*, 1771

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… 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

…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

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.
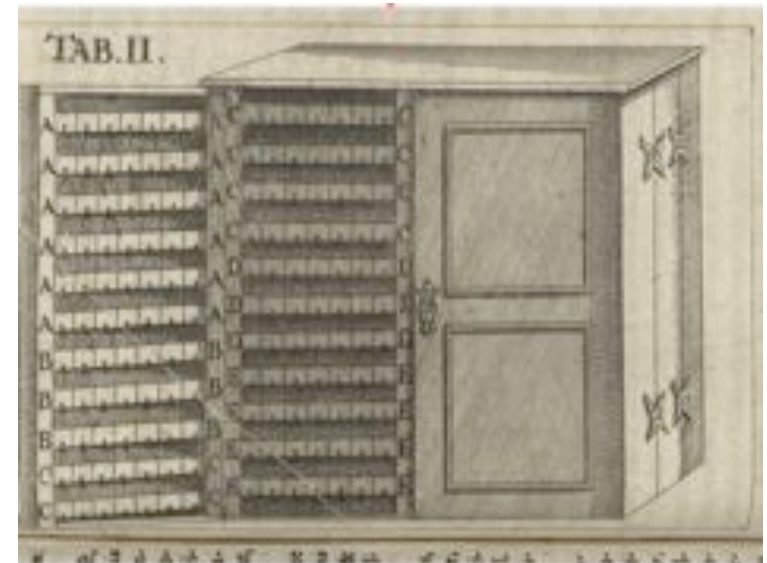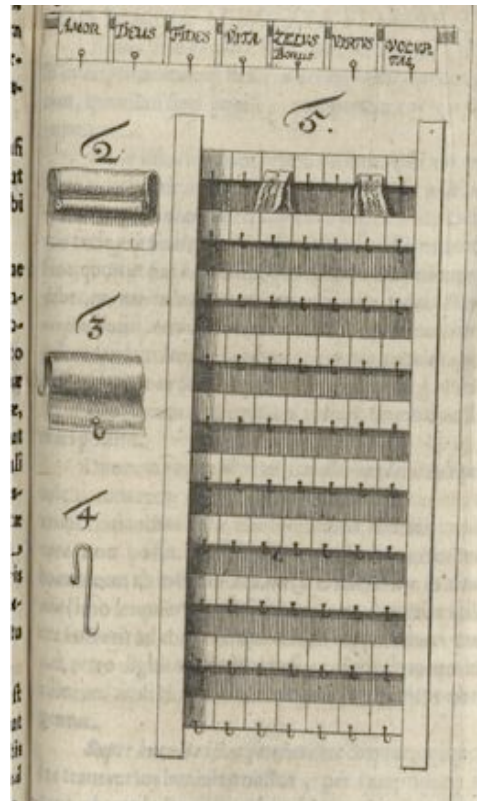>
> —Denis Diderot, *Encyclopédie,* 1755
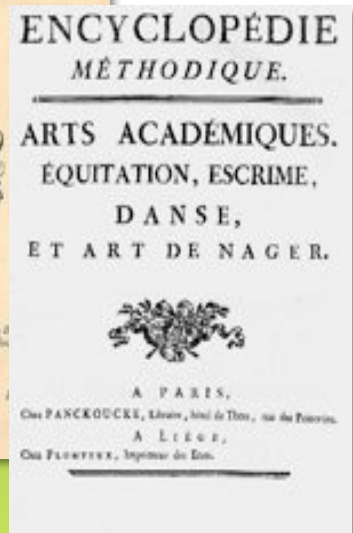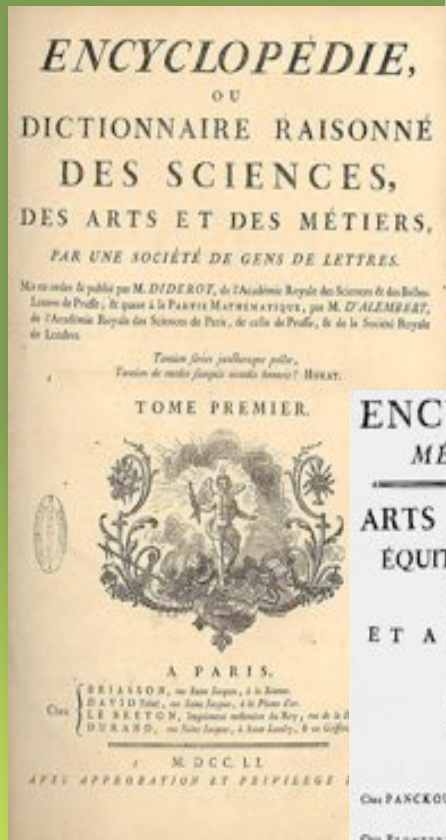
Strategies for Dealing with Information Overload

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

Reconceptualizations of Knowledge

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…

New Schemes of Organization: Philosophical Influences

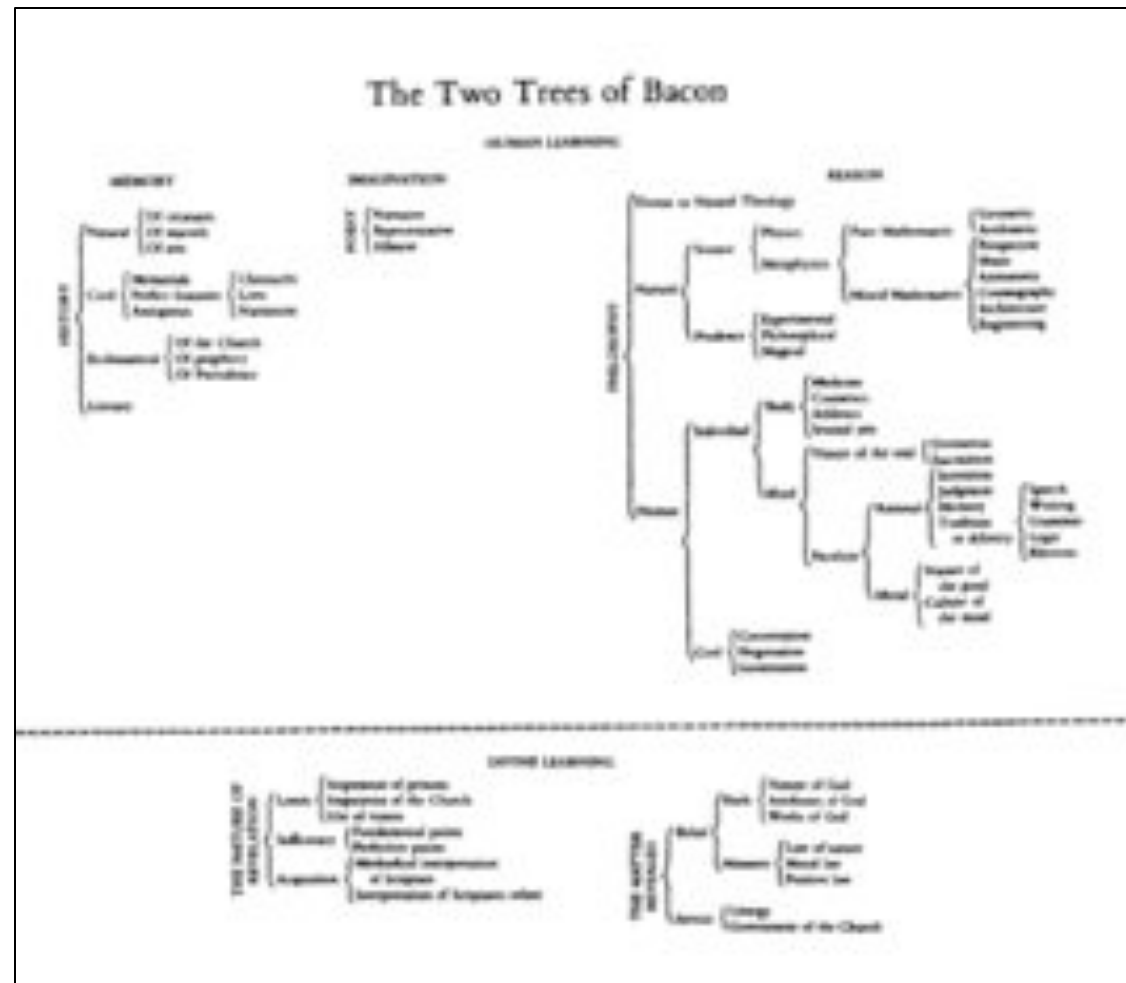Francis Bacon's scheme puts man at the center:

Nature (astronomy, meterology, etc.).

Man (anatomy, powers, actions),

Man acting on nature (medicine, visual arts, arithmetic),,,
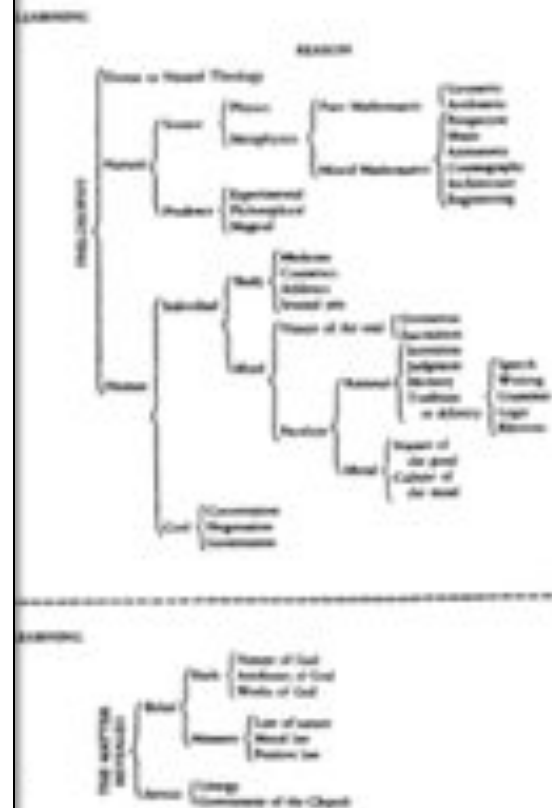
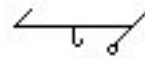The Two Trees of Bacon

The Tree of Bacon

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

Chamber's Cyclopædia,

The Tree of Chambers

The Encyclopédie

First vol. appears in 1751; last in 1772

Denis Diderot

The Enlightement 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. …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.

D'Alembert, Preliminary Discourse to the *Encyclopédie*

The "objectivity" of knowledge

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, …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.

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, Weimar, 1769
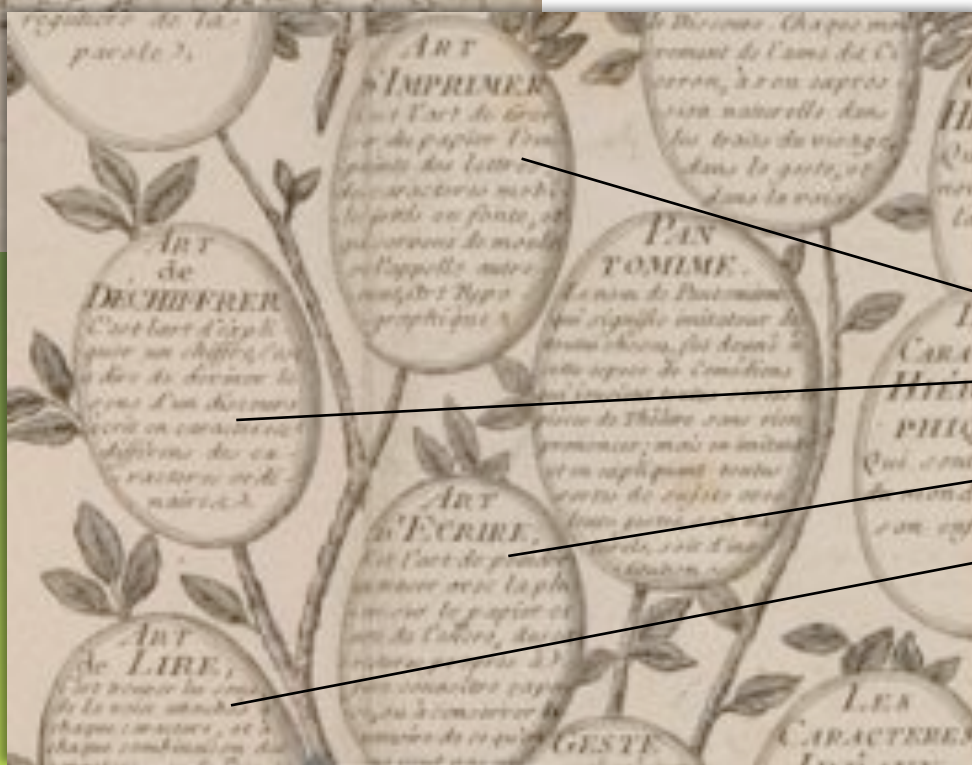
The Tree of Diderot & D'Alembert

MAP of the SYSTEM of HUMAN KNOWLEDGE

The Tree of Diderot & D'Alembert

the *SYSTEM* KNOWLEDGE

REASON

General metaphysics, or Ontology, or Science of being in general, of Possibility, of Existence, of Duration, etc.

Science of God
- Natural Theology
- Revealed Theology
- Science of good and evil spirits

- Religion
- Superstition
- Divination
- Black magic

Pneumatology or Science of the Soul

UNDERSTANDING

IMAGINATION

POETRY
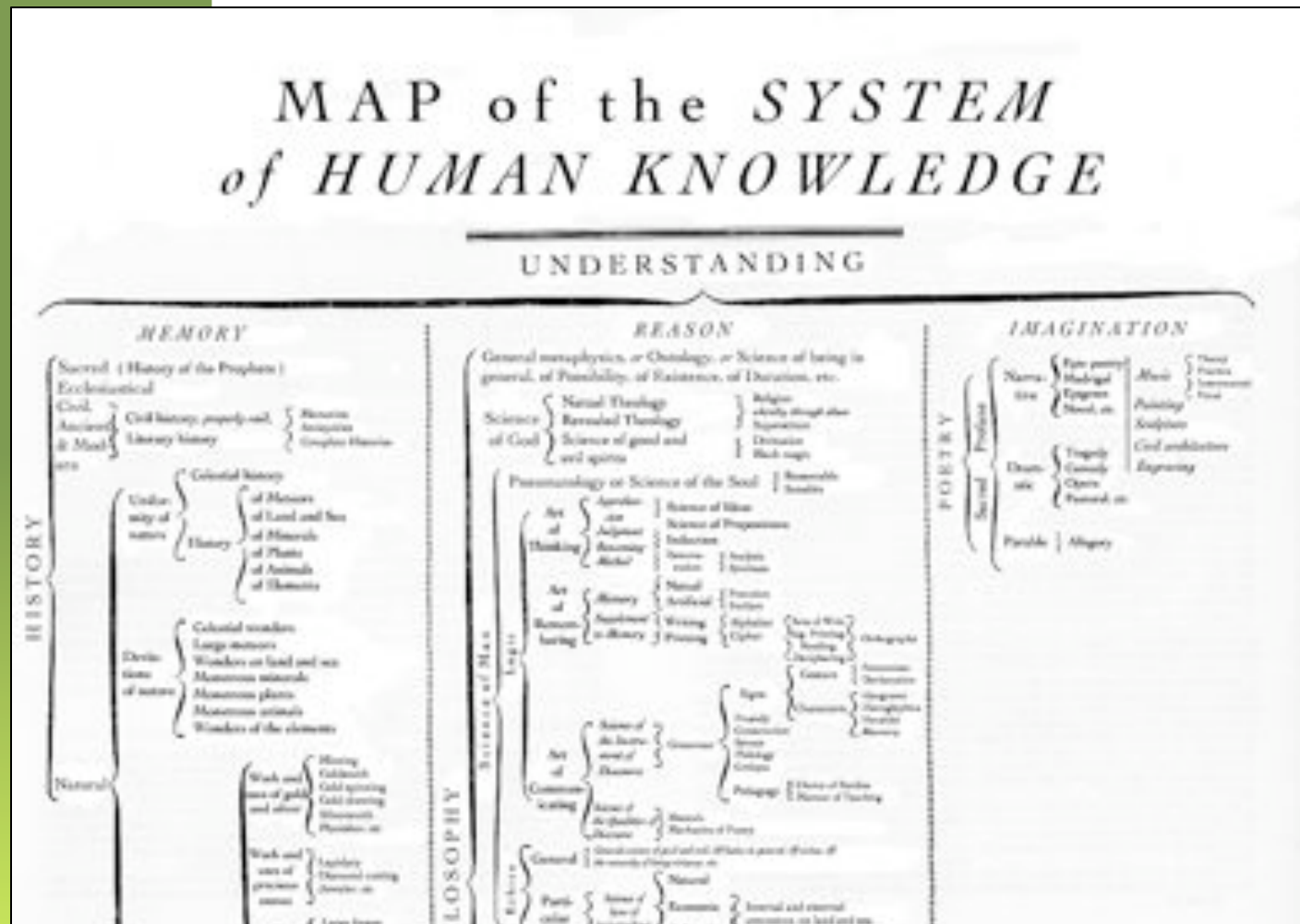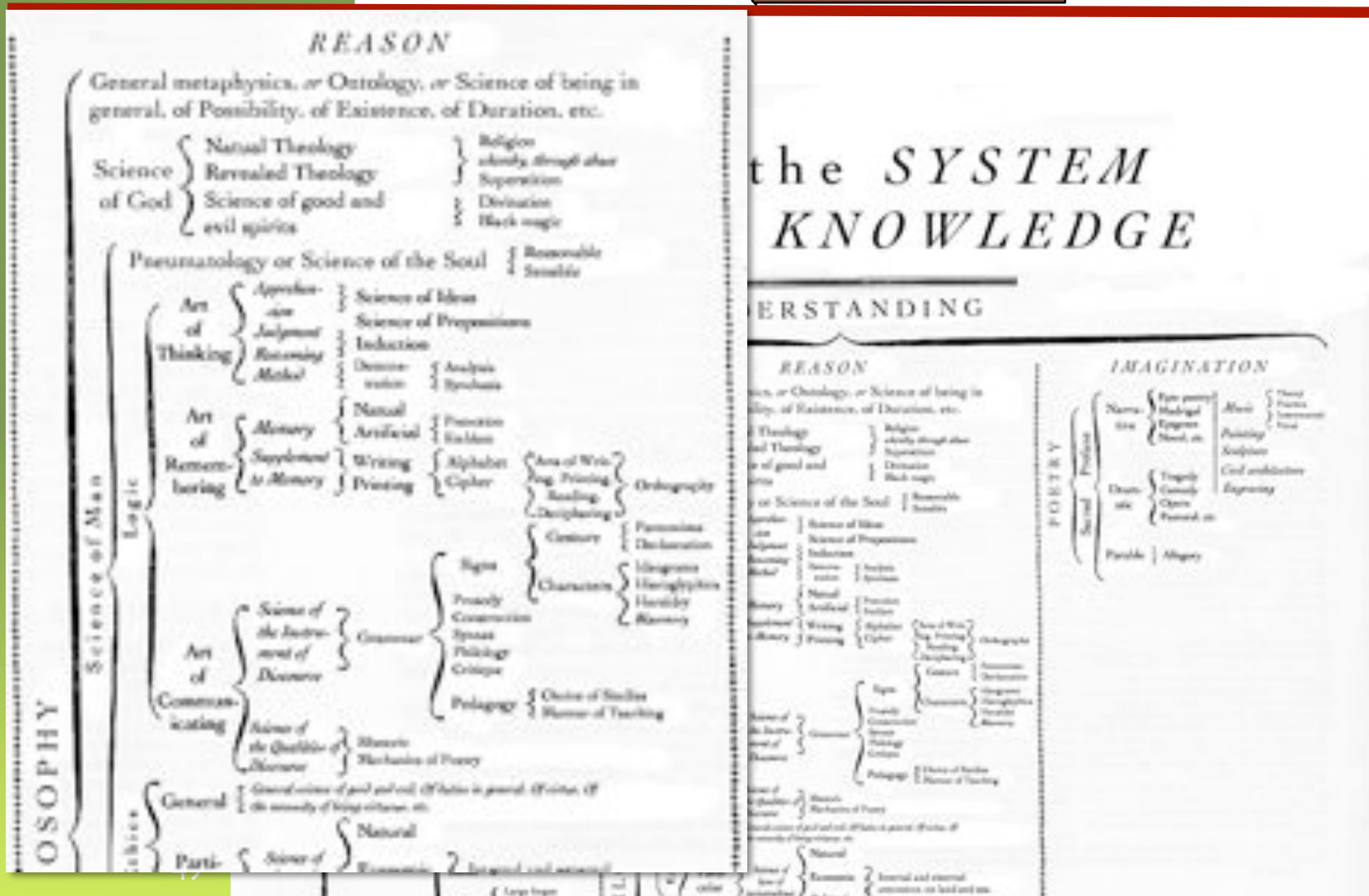
"Sciences, Arts Libéraux, Arts Méchaniques"
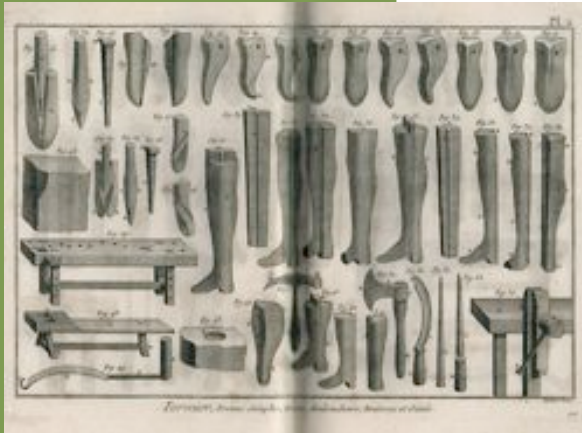
Formier
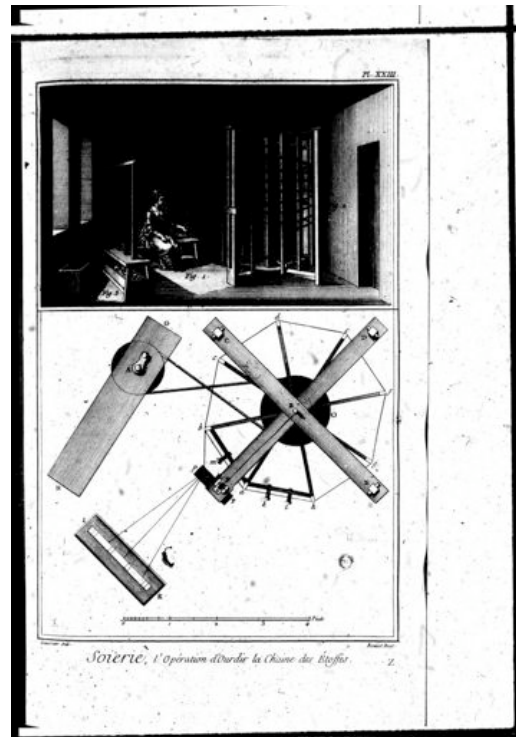
Economie Rustique (silk-making)

"Sciences, Arts Libéraux, Arts Méchaniques"
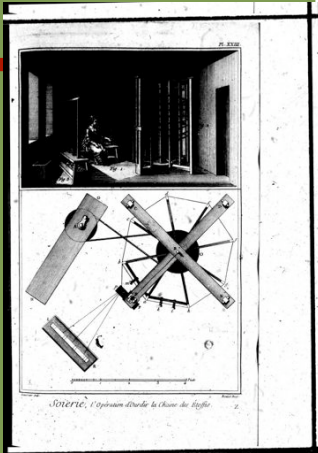
…the advantage that the *liberal* arts have over the *mechanical* arts, because of their demands upon the intellect and because of the difficulty of excelling in them, is sufficiently counter-balanced by the quite *superior* usefulness which the latter for the most part have for us….while justly respecting great geniuses for their enlightenment, society ought not to degrade the hands by which it is served"

d'Alembert, Preliminary Discourse to the Encyclopédie

Economie Rustique (silk-making)

Organizing the Trésor

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

Peter Marc Roget: 1779-1869

THESAURUS

OF
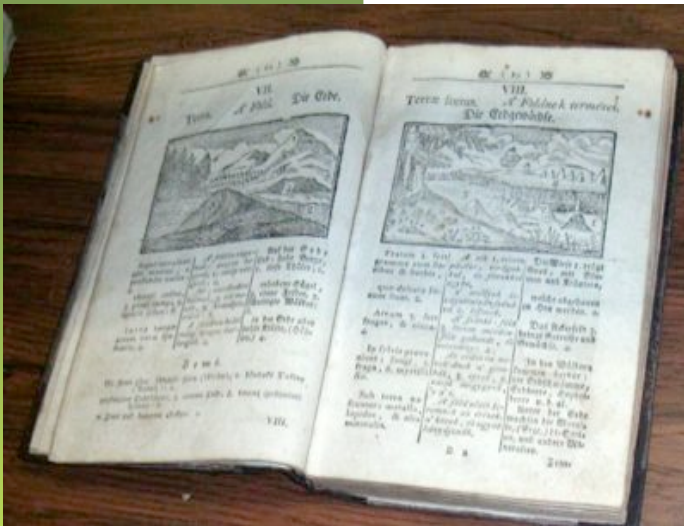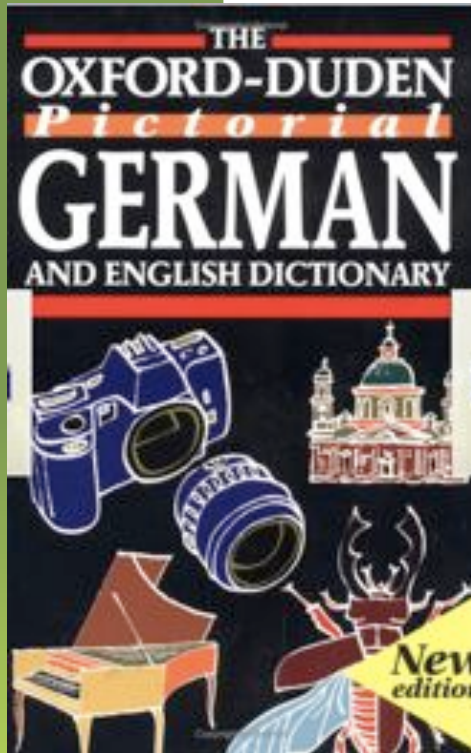
ENGLISH WORDS AND PHRAS...

CLASSIFIED AND ARRANGED

...

TO FACILITATE THE EXPRESSION OF IDE...

...

LITERARY COMPOSITION.

...

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

FOURTH EDITION, ENLARGED AND IMPROVED.

PLAN OF CLASSIFICATION.

Class	Sect.		Nos.
I. ABSTRACT RELATIONS	1. EXISTENCE	-	1 to 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

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.

The Emergence of Alphabetical Order

To the Reader.

Vch as by their place and calling (but especially Preachers) as haue occasion to speake publiquely before the ignorant people, are to be admonished, that they never affect any strange inkhorne termes, but labour to speake so as it is commonly received, and so as the most ignorant may well vnderstand them : neyther seeking to be ouer fine or curious, nor yet liuing ouer carelesse, vsing their speach as most men doe, and ordering their wits as the fewest haue done. Some men seeke so far for outlandish English, that they forget altogether their mothers language, so that if some of their mothers were aliue, they were not able to tell or vnderstand what they say, and yet these fine English Clearkes will say they speake in their mother tongue, but one might well charge them for counterfayting the Kings English. Also, some far iournied gentlemen, at their returne home, like

A 2

Advertisement to Cawdrey's Table Alpabeticall

If thou be desirous (gentle Reader) rightly and readily to vnderstand, and to profit by this Table, and such like, then thou must learne the Alphabet, to wit, the order of the Letters as they stand, perfecty without booke, and where euery Letter standeth: as (b) neere the beginning, (n) about the middest, and (t) toward the end. Nowe if the word, which thou art desirous to finde, begin with (a) then looke in the beginning of this Table, but if with (v) looke towards the end. Againe, if thy word beginne with (ca) looke in the beginning of the letter (c) but if with (cu) then looke toward the end of that letter. And so of all the rest. &c.

Rob't Cawdrey, *A table alphabeticall conteyning and teaching the true writing, and vnderstanding of hard vsuall English wordes, borrowed from the Hebrew, Greeke, Latine, or French, &c 1604*

What is this???

The Emergence of Alphabetical Order

Practical advantages of alphabetical order:

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 impulsion to structure

The Grand Larousse was everything to me; I would take down a volume at random, behind the desk, on the next-to-last shelf. A-bello, belloc-Ch, or Ci-D. . . (these associations of syllables had become proper names that denoted the sectors of universal knowledge: there was the Ci-D region, the Pr-Z region, with their flora and fauna, their cities, their great men and their battles). ... Men and beasts were there in person -- the engravings were their bodies, the text was their souls, their unique essences. Jean-Paul Sartre, Les Mots

Wikipedia: The logical end of 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.

Pop
- Adult contemporary music
- Adult oriented pop music
- Adult standards
- Afropop
- 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 Laiko pop
- Hindi pop
- Hong Kong and Cant
- Hong Kong English p
- Hot Adult Contempor

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

Material Representations of Knowledge

Material Representations of Knowledge, 1

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

Material Representations of Knowledge

Curriculum mirrored in form of library (bibliographies)

Leiden University Library, 1610

Material Representations of Knowledge

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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

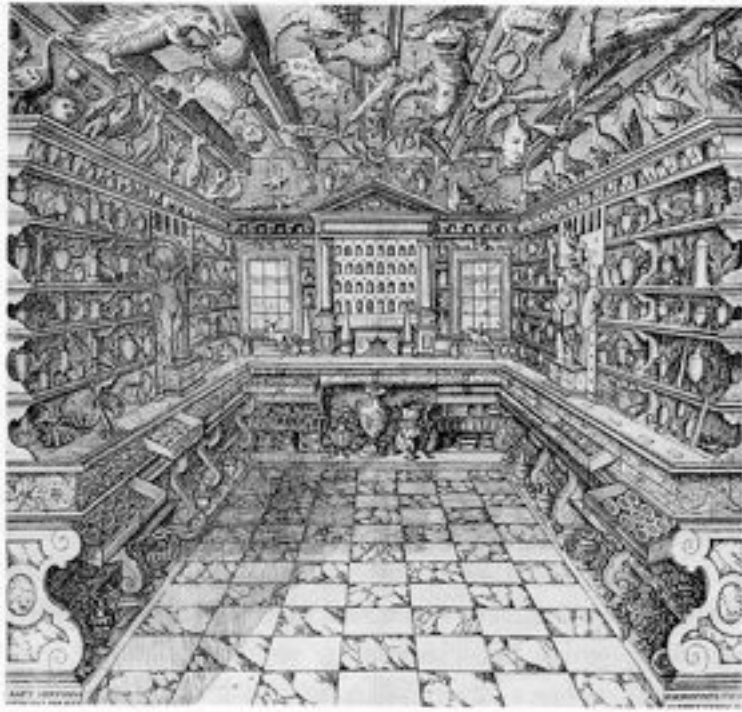Organization of knowledge mirrored in form of Kunstkammer, cabinets of curiosities, Wunderkammer, etc.

Museum Wormiamum, 1655
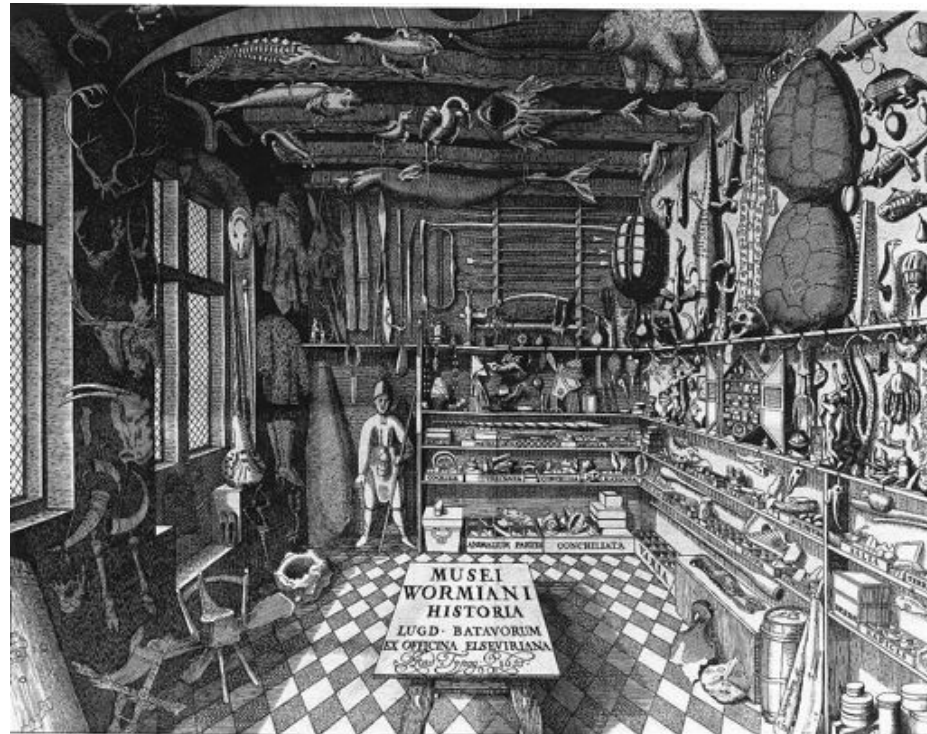
Representations of Knowledge: The Kunstkammer

Natural History Kabinet, 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*

Representations of Knowledge: The Studiolo

Studiolo of Francsco I
Florence (1570)

Kunstkammer, 1636

Representations of Knowledge: The Studiolo

Studiolo of Federico da Montefeltro
Urbino (ca. 1460) with wood intarsia
(inlay)

Representations of Knowledge: The Kunstschrank

The Kunstschrank (art cabinet or art shrine)

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.

Uffizi Gallery, Florence, 1765

Belvedere Palace, Vienna, 1781

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

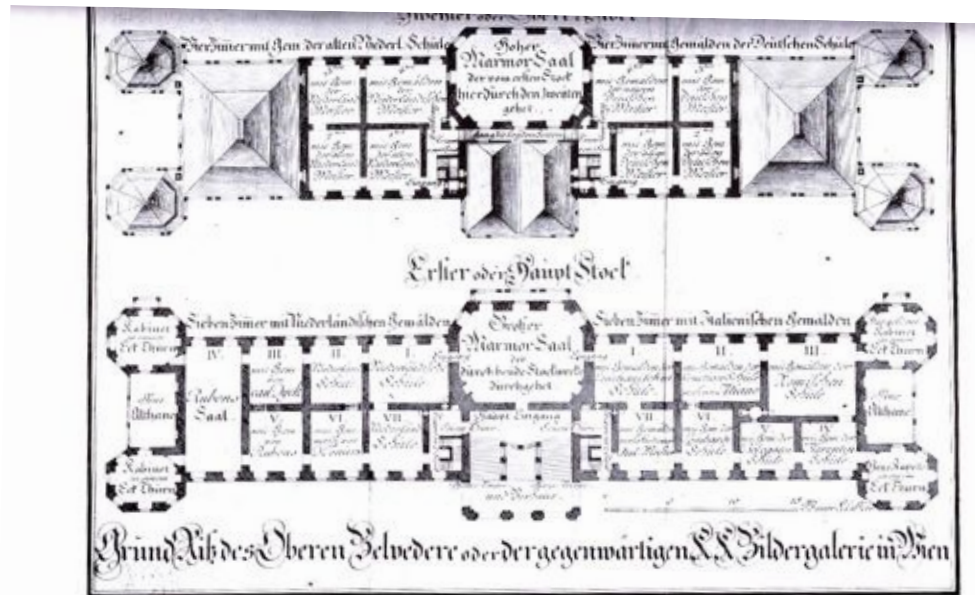

Montague House, home of original British Museum in Bloomsbury

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

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 form of display shown in Plate 23.

Rationalizing the organization of the trésor

Readings for Feb. 21
Note syllabus change!

21 Feb: Popular Print and Popular Literacy in the 18th Century (Blake Johnson, guest lecturer)

Required reading:

      • Dunton, John. 1692. "Preface" to *The Young Students Library.*

      • Raven, James. 1998. "New Reading Histories, Print Culture and the Identification of Change: The Case of Eighteenth-Century England." *Social History* 23:3, pp. 268-287.

Both online

Homework for Feb. 23

NOTE: This week *only*, homework will be due on Tuesday (Feb 21) at 5 pm.

> Read the descriptions of the procedures Johnson followed in compiling his dictionary in Macarthur and in Johnson's Preface. How might the procedures have been different if he had had modern technologies at his disposal—a networked computer, substantial corpora of online literature and texts, and so forth. Can the entire procedure of lexicography be crowd-sourced, à la the Urban Dictionary? Do you think we still require professional lexicographers?

Answer some of these questions in NO MORE THAN 500 WORDS!!!!!!!