From The Advancement of Learning

From Book II

The Arts Intellectual are four in number; divided according to the ends whereunto they are re-
to deliver over that which is retained. So as the arts must be four; Art of Inquiry or Invention; Art of Examination or Judgment; Art of Custody or Memory; and Art of Elocution or Tradition.

Invention is of two kinds, much differing; the one, of Arts and Sciences; and the other, of Speech and Arguments.

The invention of speech or argument is not properly a invention: for to invent is to discover that we know not, and not to recover or resummon that which we already know; and the use of this invention is no other but out of the knowledge whereof our mind is already possessed, to draw forth or call before us that which may be pertinent to the purpose which we take into our consideration. So as, to speak truly, it is no Invention, but a Remembrance or Suggestion, with an application; which is the cause why the schools do place it after judgment, as subsequent and not precedent. Nevertheless, because we do account it a Chase as well of deer in an inclosed park as in a forest at large, and that it hath already obtained the name, let it be called invention: so as it be perceived and discerned, that the scope and end of this invention is readiness and present use of our knowledge, and not addition or amplification thereof.

To procure this ready use of knowledge there are two courses, Preparation and Suggestion. The former of these seemeth scarcely a part of Knowledge, consisting rather of diligence than of any artificial erudition. And herein Aristotle wittily, but hurtfully, doth deride the sophists near his time, saying, they did as if one that professed the art of shoe-making should not teach how to make up a shoe, but only exhibit in a readiness a number of shoes of all fashions and sizes. But yet a man might reply, that if a shoemaker should have no shoes in his shop, but only work as he is bespoke, he should be weakly customed. But our Saviour, speaking of Divine Knowledge, saith, that the kingdom of heaven is like a good householder, that bringeth forth both new and old store; and we see the ancient writers of rhetoric do give it in precept, that pleaders should have the Places1 whereof they have most

1The classical topoi or loci. Bacon makes further distinc-

4ferred: for man’s labour is to invent that which is sought or propounded; or to judge that which is invented; or to retain that which is judged; or continual use ready handled in all the variety that may be; as that, to speak for the literal interpretation of the law against equity, and contrary, and to speak for presumptions and inferences against testimony, and contrary. And Cicero himself, being broken unto it by great experience, delivereth it plainly, that whatsoever a man shall have occasion to speak of, (if he will take the pains) he may have it in effect premeditated, and handled in thesis,2 so that when he cometh to a particular, he shall have nothing to do but to put to names and times and places, and such other circumstances of individuals. We see likewise the exact diligence of Demosthenes; who, in regard of the great force that the entrance and access into causes hath to make a good impression, had fully framed a number of prefaces for orations and speeches. All which authorities and precedents may overthrow Aristotle’s opinion, that would have us change a rich wardrobe for a pair of shears.

But the nature of the collection of this provision or preparatory store, though it be common both to logic and rhetoric, yet having made an entry of it here, where it came first to be spoken of, I think fit to refer over the further handling of it to rhetoric.

The other part of Invention, which I term Suggestion, doth assign and direct us to certain marks or places, which may excite our mind to return and produce such knowledge as it hath formerly collected, to the end we may make use thereof. Neither is this use (truly taken) only to furnish argument to dispute probably with others, but likewise to minister unto our judgment to conclude aright within ourselves. Neither may these Places serve only to apprize our invention, but also to direct our inquiry. For a faculty of wise interrogating is half a knowledge. For as Plato saith, Whosoever seeketh, knoweth that which he seeketh for in a general notion; else how shall he know it when he hath found it? And therefore the larger your anticipation is, the more direct and compendious is your search. But

1In general form, like a “thesis.” [Ed.]

2In common form, and collections of “commonplaces.” [Ed.]
the same Places which will help us what to produce of that which we know already, will also help us, if a man of experience were before us, what questions to ask; or if we have books and authors to instruct us, what points to search and resolve: so as I cannot report that this part of invention, which is that which the schools call Topics, is deficient.

Nevertheless Topics are of two sorts, general and special. The general we have spoken to; but the particular hath been touched by some, but rejected generally as inartificial and variable. But leaving the humour which hath reigned too much in the schools, (which is to be vainly subtle in few things which are within their command, and to reject the rest,) I do receive particular Topics, that is places or directions of invention and inquiry in every particular knowledge, as things of great use; being mixtures of Logic with the matter of sciences; for in these it holdeth, Ars inventendi adolescent cum inventis, for as in going of a way we do not only gain that part of the way which is passed, but we gain the better sight of that part of the way which remaineth; so every degree of proceeding in a science giveth a light to that which followeth; which light if we strengthen, by drawing it forth into questions or places of inquiry, we do greatly advance our pursuit.

Now we pass unto the arts of Judgment, which handle the natures of Proofs and Demonstrations; which as to Induction hath a coincidence with Invention; for in all inductions, whether in good or vicious form, the same action of the mind which inventeth, judgeth; all one as in the sense: but otherwise it is in proof by syllogism; for the proof being not immediate but by mean, the invention of the mean is one thing, and the judgment of the consequence is another; the one existing only, the other examining. Therefore for the real and exact form of judgment we refer ourselves to that which we have spoken of Interpretation of Nature.

For the other judgment by Syllogism, as it is a thing most agreeable to the mind of man, so it hath been vehemently and excellently laboured.

For the nature of man doth extremely covet to have somewhat in his understanding fixed and immovable, and as a rest and support of the mind. And therefore as Aristotle endeavoureth to prove that in all motion there is some point quiescent; and as he elegantly expoundeth the ancient fable of Atlas (that stood fixed and bare up the heaven from falling) to be meant of the poles or axle-tree of heaven, whereupon the conversion is accomplished; so assuredly men have a desire to have an Atlas or axle-tree within to keep them from fluctuation, which is like to a perpetual peril of falling; therefore men did hasten to set down some Principles about which the variety of their disputations might turn. . . .

The custody or retaining of knowledge is either in Writing or Memory; whereat Writing hath two parts, the nature of the character, and the order of the entry. For the art of characters, or other visible notes of words or things, it hath nearest conjunction with grammar, and therefore I refer it to the due place. For the disposition and collocation of that knowledge which we preserve in writing, it consisteth in a good digest of commonplaces; wherein I am not ignorant of the prejudice imputed to the use of commonplace books, as causing a retardation of reading, and some sloth or relaxation of memory. But because it is but a counterfeit thing in knowledges to be forward and pregnant, except a man be deep and full, I hold the entry of commonplaces to be a matter of great use and essence in studying; as that which assureth copie of invention, and contracteth judgment to a strength. But this is true, that of the methods of commonplaces that I have seen, there is none of any sufficient worth; all of them carrying merely the face of a school, and not of a world; and referring to vulgar matters and pedantical divisions without all life or respect to action.

For the other principal part of the custody of knowledge, which is Memory. I find that faculty in my judgment weakly enquired of. An art there is extant of it; but it seemeth to me that there are better precepts than that art, and better practices

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²"The art of invention grows with inventions." [Ed.]

³Abundance. [Ed.]
of that art than those received. It is certain the art (as it is) may be raised to points of ostentation prodigious: but in use (as it is now managed) it is barren; not burdensome nor dangerous to natural memory, as is imagined, but barren; that is, not dexterous to be applied to the serious use of business and occasions. And therefore I make no more estimation of repeating a great number of names or words upon once hearing, or the pouring forth of a number of verses or rhymes ex tempore, or the making of a satirical simile of every thing, or the turning of every thing to a jest, or the falsifying or contradicting of every thing by cavil, or the like, (wherewith in the faculties of the mind there is great copie, and such as by device and practice may be exalted to an extreme degree of wonder,) than I do of the tricks of tumblers, funambuloes, baladines; the one being the same in the mind that the other is in the body; matters of strangeness without worthiness.

This art of Memory is but built upon two intentions; the one Prenotion, the other Emblem. Prenotion dischargeth the indefinite seeking of that we would remember, and directeth us to seek in a narrow compass; that is, somewhat that hath congruity with our place of memory. Emblem reduceth conceits intellectual to images sensible, which strike the memory more; out of which axioms may be drawn much better practice than that in use; and besides which axioms, there are divers moe touching help of memory, not inferior to them. But I did in the beginning distinguish, not to report those things deficient, which are but only ill managed.

There remaineth the fourth kind of Rational Knowledge, which is transitive, concerning the expressing or transferring our knowledge to others; which I will term by the general name of Tradition or Delivery. Tradition hath three parts: the first concerning the organ of tradition; the second concerning the method of tradition; and the third concerning the illustration of tradition.

For the organ of tradition, it is either Speech or Writing: for Aristotle saith well, Words are the images of cogitations, and letters are the images of words; but yet it is not of necessity that cogitations be expressed by the medium of words. For whatsoever is capable of sufficient differences, and those perceptible by the sense, is in nature competent to express cogitations. And therefore we see in the commerce of barbarous people that understand not one another’s language, and in the practice of divers that are dumb and deaf, that men’s minds are expressed in gestures, though not exactly, yet to serve the turn. And we understand further that it is the use of China and the kingdoms of the high Levant to write in Characters Real, which express neither letters nor words in gross, but Things or Notions; insomuch as countries and provinces, which understand not one another’s language, can nevertheless read one another’s writings, because the characters are accepted more generally than the languages do extend; and therefore they have a vast multitude of characters; as many, I suppose, as radical words.

Now we descend to that part which concerneth the Illustration of Tradition, comprehended in that science which we call Rhetoric, or Art of Eloquence; a science excellent, and excellently well laboured. For although in true value it is inferior to wisdom, as it is said by God to Moses, when he disabled himself for want of this faculty, Aaron shall be thy speaker, and thou shalt be to him as God: yet with people it is the more mighty; for so Salomon saith, Sapiens corde appellabitur prudent, sed dulcis eloquio majora reperiet, signifying that profoundness of wisdom will help a man to a name or admiration, but that it is eloquence that prevaleth in an active life. And as to the labouring of it, the emulation of Aristotle with the rhetoricians of his time, and the experience of Cicero, hath made them in their works of Rhetorics exceed themselves. Again, the excellency of examples of eloquence in the orations of Demosthenes and Cicero, added to the perfection of the precepts of eloquence, hath doubled the progress in this art; and therefore

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5 Funambuloes are rope-dancers; baladines are theatrical dancers. [Ed.]
6 Practice. [Ed.]
7 Many others. [Ed.]
the deficiencies which I shall note will rather be in some collections which may as handmaidens attend the art, than in the rules or use of the art itself.

Notwithstanding, to stir the earth a little about the roots of this science, as we have done of the rest: The duty and office of Rhetoric is to apply Reason to Imagination for the better moving of the will. For we see Reason is disturbed in the administration thereof by three means; by Illu- ligation or Sophism, which pertains to Logic; by Imagination or Impression, which pertains to Rhetoric; and by Passion or Affection, which pertains to Morality. And as in negotiation with others men are wrought by cunning, by importunity, and by vehemency; so in this negotiation within ourselves men are undermined by Incon- sequences, solicited and importuned by Impressions or Observations, and transported by Passions. Neither is the nature of man so unfortunately built, as that those powers and arts should have force to disturb reason, and not to establish and advance it: for the end of Logic is to teach a form of argument to secure reason, and not to entrap it; the end of Morality is to procure the affections to obey reason, and not to invade it; the end of Rhetoric is to fill the imag-ination to second reason, and not to oppress it: for these abuses of arts come in but ex obliquo, for caution.

And therefore it was great injustice in Plato, though springing out of a just hatred of the rheto- ricans of his time, to esteem of Rhetoric but as a voluptuary art, resembling it to cookery, that did mar wholesome meats, and help unwholesome by variety of sauces to the pleasure of the taste. For we see that speech is much more conversant in adorning that which is good than in colouring that which is evil; for there is no man but speaketh more honestly than he can do or think: and it was excellently noted by Thucydides in Cleon, that because he used to hold on the bad side in causes of estate, therefore he was ever inveighing against eloquence and good speech; knowing that no man can speak fair of courses sordid and base. And therefore as Plato said elegantly, That virtue, if she could be seen, would move great love and affection; so seeing that she cannot be shewed to the Sense by cor- poral shape, the next degree is to shew her to the Imagination in lively representation: for to shew her to Reason only in subtilty of argument, was a thing ever derided in Chrysippus and many of the Stoiics; who thought to thrust virtue upon men by sharp disputations and conclusions, which have no sympathy with the will of man.

Again, if the affections in themselves were pliant and obedient to reason, it were true there should be no great use of persuasions and insinuations to the will, more than of naked proposition and proofs; but in regard of the continual mutinies and seditions of the affections,

Video meliora, proboque;
Deteriora sequor;\footnote{Indirectly, [Ed.]} reason would become captive and servile, if Eloquence of Persuasions did not practise and win the Imagination from the Affection’s part, and contract a confederacy between the Reason and Imagination against the Affections. For the affections themselves carry ever an appetite to good, as reason doth; the difference is, that the affection beholdeth merely the present; reason beholdeth the future and sum of time; and therefore the present filling the imagination more, reason is commonly vanquished; but after that force of eloquence and persuasion hath made things future and remote appear as present, then upon the revolt of the imagination reason prevails.

We conclude therefore, that Rhetoric can be no more charged with the colouring of the worse part, than Logic with Sophistry, or Morality with Vice. For we know the doctrines of contraries are the same, though the use be opposite. It appeareth also that Logic differeth from Rheto- ric, not only as the fist from the palm, the one close the other at large; but much more in this, that Logic handleth reason exact and in truth, and Rhetoric handleth it as it is planted in popular opinions and manners. And therefore Aristotle doth wisely place Rhetoric as between Logic on

\footnote{In The Peloponnesian War, iii, 9. [Ed.]}
the one side and moral or civil knowledge on the other, as participating of both: for the proofs and demonstrations of Logic are toward all men indifferent and the same; but the proofs and persuasions of Rhetoric ought to differ according to the auditors:

Orpheus in sylvis, inter delphinas Arion: this application, in perfection of idea, ought to extend so far, that if a man should speak of the same thing to several persons, he should speak to them all respectively and several ways: though this politic part of eloquence in private speech [de prudentia sermonis privati] it is easy for the greatest orators to want, whilst by the observing their well-graced forms of speech they lose the volubility of application: and therefore it shall not be amiss to recommend this to better inquiry; not being curious whether we place it here, or in that part which concerneth policy.

Now therefore will I descend to the deficiences, which (as I said) are but attendances: and first, I do not find the wisdom and diligence of Aristotle well pursued, who began to make a collection of the popular signs and colours of good and evil, both simple and comparative, [colores boni et mali, simplicis et comparati] which are as the Sophisms of Rhetoric (as I touched before). For example:

**Sophisma**

*Quod laudatur, bonum: quod vituperatur, malum.*

**Redargutio**

Laudet venales qui vult extrudere merces. Malum est, malum est, inquit emptor: sed cum recesserit, tum gloriatur.

The defects in the labour of Aristotle are three: one, that there be but a few of many; another, that their Elenches are not annexed: and the third, that he conceived but a part of the use of them: for their use is not only in probaton, but much more in impression. For many forms are equal in significtion which are differing in impression: as the difference is great in the piercing of that which is sharp and that which is flat, though the strength of the percussion be the same; for there is no man but will be a little more raised by hearing it said, *Your enemies will be glad of this*:

*Hoc Ithacus velit, et magno mercenarum Atridae:* than by hearing it said only. *This is evil for you.*

Secondly, I do resume also that which I mentioned before touching Provision or Preparatory store for the furniture of speech and readiness of invention; which appeareth to be of two sorts; the one in resemblance to a shop of pieces unmade up, the other to a shop of things ready made up; both to be applied to that which is frequent and most in request: the former of these I will call Antitheta, and the latter Formulae.

Antitheta are Theses argued pro et contra; wherein men may be more large and laborious: but (in such as are able to do it) to avoid proxility of entry, I wish the seeds of the several arguments to be cast up into some brief and acute sentences; not to be cited, but to be as skeins or bottoms of thread, to be unwinded at large when they come to be used; supplying authorities and examples by reference.

**Pro verbis legis**

*Non est interpretatio, sed divinatio, quae recedit a litera.*

*Cum receditur a litera, judex transit in legislatorum.*

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12"As Orpheus in the woods, as Arion with the dolphins" (Virgil, Eclogues, VIII, 56). [Ed.]

13Lose. [Ed.]

14"Sophisma / What is praised is good; what is censured, evil." [Ed.]

15"Refutation / He who praises his wares wishes to sell them" (Horace, Epistles, II, 2). "'It's no good, it's no good,' says the buyer; but after he goes, he exults in his bargain." [Ed.]

16That is, Aristotle has not attached (annexed) the logical refutations (Elenches) to his examples (colors or sophisms). [Ed.]

17That is, the colors are valuable for emotional appeal as well as logical demonstration. [Ed.]

18"This the Ithacan desires, and for it the sons of Atreus would pay much" (Aeneid, II, 104). [Ed.]

19"For the letter of the law / It is not interpretation but divination to depart from the letter of the law. / If the letter of the law is left behind, the judge becomes the legislator." [Ed.]
PRO SENTENTIA LEGIS

Ex omnibus verbis est eliciendus sensus qui interpretatur singula.\textsuperscript{20}

Formulae are but decent and apt passages or conveyances of speech, which may serve indifferently for differing subjects; as of preface, conclusion, digression, transition, excusation, \&c. For as in buildings there is great pleasure and use in the well-casting of the staircases, entries, doors, windows, and the like; so in speech the conveyances and passages are of special ornament and effect. So may we redeem the faults passed, and prevent the inconveniences future.

\textsuperscript{20"FOR THE SPIRIT OF THE LAW / The meaning of each word depends upon the interpretation of the whole statement." [Ed.]}