

Francis Bacon and the Rhetorical Reordering of Reality¹

David Parry

University of Cambridge

Abstract

Francis Bacon is accused by some of fragmenting a unified vision of the world by focusing on the empirical observation of small particulars. In a similar way, older scholarship sees Bacon as opposed to the flowing discourse of Ciceronian rhetoric in favour of disconnected aphorisms. These are parallel oversimplifications of Bacon. Bacon himself uses Ciceronian style in his critique of Ciceronian excess, and while, for Bacon, verbal rhetoric is of no use in establishing truth, it is vital to the transmission of truth to a wider audience. Rhetoric thus has a crucial role in the collaborative project outlined by Bacon of obtaining and putting to work true knowledge of the world in order to recover the dominion over creation that humanity lost at the Fall.

Similarly, Bacon's emphasis on deriving knowledge from empirical observation rather than inherited intellectual frameworks is not intended to fragment knowledge, but rather to begin the process of reconstituting the whole body of human knowledge on a sound footing. This process of specific observations gradually joining together is paralleled by bare aphorisms joining together to form more connected discourse. Far from advocating a free play of signifiers with no resolution, Bacon's intellectual project is intensely teleological, although it is a project whose telos lies beyond the capacity of one person and beyond the scope of one lifetime to accomplish. We should not be prematurely satisfied as if the temple of wisdom is complete before this so, but we may enjoy provisional pleasures along the way.

¹ This is an expanded and revised version of a paper delivered at the Congress of the Humanities and Social Sciences, Fredericton, New Brunswick, in May 2011, at a joint session of the Canadian Society for Renaissance Studies and the Canadian Society for the Study of Rhetoric. I am grateful for the Government of Canada Postdoctoral Research Fellowship at the University of Toronto and the Visiting Fellowship at the Centre for Reformation and Renaissance Studies (Toronto) that supported this research. I am also grateful to Paul Stevens for his support during and following my year in Toronto, and to Katherine Calloway for her helpful comments on a more recent draft of this article.

Keywords: Francis Bacon, rhetoric, *Novum Organum*, prose style, aphorisms, rhetoric of science.

Introduction

In 2010, Prince Charles, the Prince of Wales and heir to the British throne, published a book entitled *Harmony: A New Way of Looking at our World*, co-written with Tony Juniper and Ian Skelly.² As well as offering concrete policy solutions to ecological problems in fields such as architecture, agriculture, and medicine, this book argues that, for human beings to be related to the world around us in a healthy way, we need to relinquish the “mechanistic” understanding of the natural world characteristic of Western modernity, in which humans seek to exert mastery over nature, and return to an older “organic” model of the world characteristic of pre-modern societies, in which humans see themselves as participants in the deep spiritual interconnectedness of all things.

Charles and his collaborators highlight the seventeenth century in particular as the start of what they dub “The Age of Disconnection,” in which humans came to see themselves as detached from nature and to see nature as something to be exploited for human ends.³ Francis Bacon’s 1620 work the *Novum Organum Scientiarum* (“New Instrument of the Sciences”) is highlighted as particularly culpable in this process:

The “new instrument” this title referred to was the process of reduction. In his book, Bacon describes an enquiry into the workings of Nature as being a process that should pass through “progressive stages of certainty”. This set in train the way in which science breaks “being” down into its quantifiable and measurable parts. Organisms are fixed or pinned, clamped, pressed or pulped to extract yet smaller parts for analysis. (HRH the Prince of Wales, *et al.* 153–54)

Bacon is seen here as the initiator of a trajectory towards what the authors call “the ‘atomizing’ of reality,” a breaking of the world down into its component parts that has caused us to lose the sense of the whole (HRH the Prince of Wales, *et al.* 154). The authors equate Bacon’s method of induction with reduction, though they concede that this may not have been Bacon’s intention. This reading has some validity given that Bacon does indeed advocate leaving behind the inherited grand schemas of existing intellectual (especially Aristotelian) frameworks in

² Tony Juniper was Executive Director of Friends of the Earth, England, Wales and Northern Ireland from 2003 to 2008, and Vice Chair of Friends of the Earth International from 2000 to 2008; he stood for election to the UK parliament as the Green Party candidate for Cambridge in the 2010 general election. Ian Skelly is a presenter for BBC Radio 3, the BBC’s classical music station.

³ This phrase has resonances with T.S. Eliot’s complaint that “In the seventeenth century a dissociation of sensibility set in, from which we have never recovered” (288).

favour of the empirical observation of small particulars. However, Charles and his collaborators seem to miss Bacon's overall intention, which, as the *Novum Organum* taken as a whole makes clear, is emphatically not to fragment knowledge into mutually exclusive specialisms but to ascertain more accurate knowledge of particulars in order to rebuild the whole of human knowledge on a sound footing by a gradual process of induction that joins these particulars together.

The mistaken supposition that Bacon is interested in particulars to the exclusion of the whole finds a parallel in older studies of Bacon's prose style. Literary scholarship of the earlier twentieth century, as exemplified by George Williamson and Morris Croll, sought to account for a perceptible shift in English prose style in the early seventeenth century by making a sharp distinction between Ciceronian style, characterized by extended periodic sentences with polished flowing cadences, and Senecan style, characterized by shorter epigrammatic phrases, more abruptly connected. In this still influential taxonomy, Bacon is identified as a chief proponent and practitioner of Senecan style (see, for instance, Loewenstein 284). However, although Bacon indeed contributed to a shift in stylistic preferences, Brian Vickers demonstrated in the 1960s that a strict dichotomy between Ciceronian and Senecan style is not applicable to Bacon, and that Bacon in fact critiques a rigid attachment to Senecan as well as Ciceronian style (*Renaissance Prose* esp. 111–13).⁴

There are parallels between the reading of Bacon as a proponent of reductionist science and the reading of Bacon as an anti-Ciceronian. In both cases, Bacon is perceived to favour fragmentation and functionalism, to be aphoristic with regard to words and atomistic with regard to the world. Neither of these perceptions is entirely incorrect, but neither tells the full story.

Words and Matter: Ratio, Oratio, and Operatio

The passage of Bacon's most commonly invoked to identify him as an anti-Ciceronian is found in *The Advancement of Learning*, where Bacon critiques what he perceives to be the excesses of Elizabethan neo-Ciceronian style (Vickers, *Renaissance Prose* 111–12; Vickers, "Bacon and Rhetoric" 222–23). He complains of the popularity of "the flowing, and watrie vaine of *Osorius* the Portugall Bishop," of the "infinite, and curious paines" that the Strasbourg humanist educationalist Johann Sturm bestowed on Cicero and Hermogenes, and the tendency of the

⁴ Roger Pooley questions the usefulness of "Senecan style" as an analytical category: "When such markedly different writers as Browne, Bacon, Felltham and Burton can be joined together one begins to doubt the helpfulness of the model. [...] There is no single Senecan style" (9).

Cambridge scholars Nicholas Carr and Roger Ascham to “almost diefie *Cicero* and *Demosthenes*, and allure, all young men that were studious vnto that delicate and polished kinde of learning” (*Advancement* 22). Bacon laments that

men began to hunt more after wordes, than matter, and more after the choisenesse of the Phrase, and the round and cleane composition of the sentence, and the sweet falling of the clauses, and the varying and illustration of their workes with tropes and figures: then after the weight of matter, worth of subiect, soundnesse of argument, life of inuention, or depth of iudgement. (*Advancement* 22)

However, this cannot be taken as a straightforward rejection of Ciceronian style per se. In this critique of the excesses of neo-Ciceronianism, Bacon himself uses Ciceronian techniques – this is an extended periodic sentence with rhythmically balanced “sweet falling” clauses, though this perhaps could be read as a parody of the style he is criticizing. Moreover, Judith Rice Henderson has pointed out that, in Bacon’s later work *De Augmentis Scientiarum*, essentially an expanded Latin version of *The Advancement of Learning*, there is a parallel passage likewise criticizing excessive attachment to Senecan style, thus severely denting the supposition that Bacon is contending for Senecan style against Ciceronianism (*De Augmentis Scientiarum* 452–55; Henderson 209). Rather, the objection is that “the whole inclination and bent of those times, was rather towards copie, than weight” (Bacon, *Advancement* 23), or, as Michael Kiernan paraphrases: “Bacon responds to what he sees as a distorting concern with style over substance, not to eloquence itself” (“*Commentary*” 222).

In a passage that has disconcerted scholarly readers, Bacon presents neo-Ciceronian stylistic excess as an unfortunate by-product of an interest in classical eloquence stirred up by Martin Luther’s need to appeal to antiquity. This sounds like an implausible claim that the Protestant Reformation was responsible for Renaissance humanism, and several scholars, including Bacon specialists and historians of rhetoric, have supposed that Bacon has simply got his history wrong at this point.⁵ However, Henderson has noted that many of the names Bacon mentions (such as Carr and Ascham) are connected with a particular circle of English Protestant humanists who studied in Cambridge in the mid-sixteenth

⁵ For instance, Michael Kiernan: “Bacon takes considerable rhetorical licence in crediting Luther’s quarrel with Rome for the achievements of Renaissance humanism; by the second decade of the sixteenth century, the major texts of antiquity were well out of the library and into printed editions, and subject to critical study” (“*Commentary*” 221); Peter Mack: “Bacon is incorrect in making Luther the patron (rather than the beneficiary) of humanism” (*Elizabethan Rhetoric* 293 n. 1); Joseph Loewenstein states that Bacon’s desire for reform “provoked him to a remarkable historical revisionism” (283).

century and gained influence in the courts of Edward VI and Elizabeth I (Henderson *passim*, esp. 217–29). Henderson argues that it is not Renaissance Ciceronianism in general that Bacon is criticizing but particular pedagogical practices adopted by this Cambridge circle. Whether or not Henderson is correct to absolve Bacon of historiographical perversity in this way, the Cambridge Protestant humanists do indeed have pertinent connections to Francis Bacon.

His father, Sir Nicholas Bacon, Lord Keeper to Elizabeth I, was a member of this circle, to which his mother, Lady Anne Cooke Bacon, was also connected through her sister's husband Sir William Cecil, Lord Burghley, best known as Elizabeth's secretary of state. In an essay on Lady Anne Bacon, Lynne Magnusson notes that Sir Nicholas Bacon "identified Seneca as his own favoured classical model and Cicero as his wife's" (Magnusson 44, referencing N. Bacon 27), but Magnusson also notes that while Lady Anne's celebrated translation from Latin of John Jewel's *Apologia Ecclesiae Anglicanae* (*An Apologie or Answere in Defence of the Church of Englande*) "shows her to be an artful English Ciceronian," much of her correspondence demonstrates "Senecan concision" (44, 54).

I would like to suggest that, although Bacon may be concerned about what he sees as the increasingly excessive and degenerate Ciceronian style of this Cambridge circle, he inherits from its members a Christianized version of the Ciceronian paradigm for the proper function of rhetoric. One of the Cambridge-linked Protestant humanists not singled out for criticism by Bacon is Thomas Wilson, whose book *The Arte of Rhetorique*, first published in 1553, was one of the leading vernacular rhetoric texts popularizing the Ciceronian rhetorical system for an English readership (Wagner; Mack, *History* 302–303).

Wilson begins his book with a myth of the origins of rhetoric that echoes the one found in Cicero's *De Inventione*. In *De Inventione*, Cicero writes about how humans used to live in a brutish state of savagery and competition until an eloquent orator gathered them together and persuaded them that that it was in their interests to cooperate and form a society (1.2–3). This narrative highlights rhetoric's vital civic function of creating and maintaining the *polis*, the state that places humans into a mutually beneficial social order. Wilson retells this story but reframes Cicero's narrative within the biblical narrative as understood by Christian tradition.

At the creation of the world, Wilson tells us, God gave humanity the gift of reason, but, at the Fall of humanity, reason was corrupted, causing people to live in a state of brutish disorder. Yet certain individuals were given the power, by their speech, to mitigate the worst effects of the Fall:

God still tendering his owne workemanship, stirred vp his faythfull and elect, to perswade with reason, all men to societie. And gaue

his appoynted ministers knowledge bothe to se the natures of men, and also graunted them the gift of vtterance, that they myghte wyth ease wyne folke at their will, and frame them by reason to all good order. (Wilson sig. A3^v)

One might note here that, in order to accomplish their objective of re-establishing a social order, these speakers are divinely gifted with both “knowledge” and “the gift of vtterance.” This echoes Cicero’s emphasis on the need for the orator to combine *ratio* (reason) and *oratio* (speech). Scott Crider sees Wilson’s “biblical transvaluation of Cicero’s etiological myth of oratory” as signalling that *The Arte of Rhetorique* is “an Augustinian, biblical rhetoric” (250–51), and the subtitle of an article by Mark Wildermuth similarly identifies Wilson’s *Arte* as “reclaiming the classical heritage for English Protestants.”

Bacon, like Wilson, values the civic use of rhetoric. He notes that “It is Eloquence, that preuayleth in an actiue life” (*Advancement* 127), and, as a public figure himself, Bacon makes use of his humanist rhetorical education in his parliamentary speeches and letters on matters of public policy (Vickers, “Bacon and Rhetoric” 207). However, Bacon’s overall project shares with Wilson’s the more ambitious cosmic scope of mitigating, if not reversing entirely, the effects of the Fall.⁶ In the conclusion to the *Novum Organum*, he famously writes:

For by his fall man lost both his state of innocence and his command over created things. However, both of these losses can to some extent be made good even in this life, the former by religion and faith, the latter by the arts and sciences. (*Instauratio Magna* 447)⁷

Prince Charles concedes, “I trust it is clear that I am not suggesting remarkable people like Bacon, Galileo and Descartes set out to destroy the world”

⁶ Seminal studies on the early modern project of reversing the Fall through mastering nature include those of Webster and Harrison. McKnight focuses more extensively on Bacon in particular through this lens, as does Briggs, with a more direct use of classical rhetoric but perhaps a lesser emphasis on the fallen nature of creation.

⁷ This is the translation from Bacon’s Latin provided by Rees and Wakely (447). The Latin reads: “Homo enim per lapsum & de Statu Innocentiæ decidit, et de Regno in Creaturas. Vtraque autem res etiam in hâc vita nonnullâ ex parte reparari potest; prior per Religionem & Fidem, posterior per Artes & Scientias.” (*Instauratio Magna* 446). Cf. Milton’s vision of the purpose of education: “The end then of learning is to repair the ruins of our first parents by regaining to know God aright, and out of that knowledge to love him, to imitate him, to be like him, as we may the neerest by possessing our souls of true vertue, which being united to the heavenly grace of faith makes up the highest perfection.” (Milton II:366–67)

(155). I would argue that not only did Bacon lack the intention to destroy the world but that his conscious intention was to reshape and restore the world.

The itinerant Moravian polymath, bishop, and educationalist Jan Amos Comenius (1592–1670), who drew inspiration, among other sources, from Bacon (Murphy 20–21, 26–27, 71–74, 103, 234–35; Čapková), states that all people should be educated, “so that they prove themselves far superior to the animal kingdom through their three special endowments, namely REASON [*Ratio*], SPEECH [*Oratio*], and free and varied OPERATION [*Operatio*]” (Comenius 33).⁸ The Latin here makes clear even in the shape of the words how each of these stages arises from the previous: *Ratio* finds expression in *Oratio*, which takes effect in the world as *Operatio*. Whilst I have not found this precise formulation as pithily in Bacon, Bacon does speak of the importance of reason and speech giving rise to *opera* (“works”) (see, for instance, *Instauratio Magna* 104, 106, 116, 174). Bacon thus thinks that thoughts and words should bear the fruit of works in the world.

Invention and Induction

It is arguably in the domain of *ratio* rather than *oratio* that Bacon breaks most radically with tradition. In his critique of the English Ciceronians, Bacon laments the neglect of “life of invention, or depth of judgement” (*Advancement* 22). “Invention” and “judgement” correspond to the Latin *inventio* and *iudicio*. These are the first two of the five Ciceronian canons of rhetoric – *inventio* is the finding and selection of matter for a speech, and *iudicio* or *dispositio* is the arrangement of the matter into a proper order. However, *inventio* and *iudicio* were also seen as part of dialectic or logic, and the fifteenth-century German humanist Rudolph Agricola and the sixteenth-century French Protestant scholar Petrus Ramus argued influentially that they should therefore not be treated as part of rhetoric, leaving to rhetoric only the three latter parts of Cicero’s schema – *elocutio* (style), *memoria* (memory), and *actio/pronuntiatio* (delivery).⁹ In practice, rhetoric came to be seen as concerned principally with *elocutio*, style.

Bacon agrees with Ramus insofar as he sees the finding out and disposition of matter as prior to its transmission in speech or writing. However, he does not

⁸ See Parry for further discussion of how the educational visions of both Comenius and Milton echoed the Baconian project of reversing the Fall and regaining humanity’s lost dominion over the world.

⁹ Older scholarship, following the lead of the pioneer of Ramus studies, Walter J. Ong, often saw the model of rhetoric developed by Ramus and his collaborator Omer Talon as sharply opposed to Ciceronian rhetoric. However, Ramus and Ramism are currently undergoing a reassessment leading to an emerging new consensus that Ramism is a pedagogical simplification of the Ciceronian tradition rather than a radical break from it. For the current state of Ramist studies, see especially the essay collection edited by Reid and Wilson, and Mack, *History* 136–63. On Agricola, see especially Mack, *Renaissance Argument*, and Mack, *History* 56–75.

thereby give primacy to the verbal art of dialectic as he has inherited it, which relies on deductive reasoning from verbal premises, but rather displaces dialectic in favour of inductive reasoning from empirical observations. In the introduction to the *Novum Organum*, he says:

For though I allow the syllogism and suchlike celebrated and flashy demonstrations their jurisdiction over the popular arts and matters of opinion (for I do not meddle with them), yet in connection with the nature of things I use induction for everything and as much for minor as for major propositions. (*Instauratio Magna* 31)¹⁰

Bacon here somewhat grudgingly acknowledges a place for the syllogism, the everyday tool of formal logic, but in fact rejects the structures of dialectic for the finding out of knowledge: they have “jurisdiction” only over “matters of opinion.” True “invention,” in the rhetorical sense of the finding out of things to say, should derive rather from newly observed experimental data, which are then arranged and put together through the process of inductive reasoning.

However, while verbal reasoning is not the source of knowledge for Bacon, the knowledge forged by the combination of empirical observation and reformed reason must then be transmitted in words. This is a necessary translation if this knowledge is to be put to work by anyone else, as is required for the collaborative project of regaining dominion over the world to reverse the effects of the Fall. *The Advancement of Learning* speaks of four “arts intellectuall,” which together cover the functions usually assigned to dialectic and rhetoric:

The ARTS INTELLECTVALL, are foure in number, diuided according to the ends whereunto they are referred: for mans labour is to *inuent* that which is *sought* or *propounded*: or to *iudge* that which is *invented*: or to *retaine* that which is *iudged*: or to *deliuer* ouer that which is *retained*. So as the Arts must bee foure: ARTE of ENQVIRIE or INVENTION: ART of EXAMINATION or IVDGEMENT: ART of CVSTODIE or MEMORIE: and ART of ELOCVTION or TRADITION. (*Advancement* 107)

As Brian Vickers notes, Bacon’s discussion of these intellectual arts mingles together a number of pre-existing disciplines: “logic and rhetoric, poetics, grammar, linguistics and pedagogy” (“Bacon and Rhetoric” 209). Yet it is

¹⁰ The Latin reads: “Quamuis igitur relinquamus Syllogismo & huiusmodi Demonstrationibus famosis ac iactatis, iurisdictionem in Artes populares & opinabiles (nil enim in hac parte mouemus) tamen ad Naturum Rerum, Inductione per omnia, & tam ad minores propositiones, quàm ad maiores, vtimur.” (*Instauratio Magna* 30)

noteworthy that Bacon equates “Elocution” with “Tradition.” “Elocution” is a near-transliteration of the Latin *elocutio*, referring to the stylistic aspect of rhetoric that came to dominate early modern discussions of rhetoric, whereas “Tradition” literally signifies the “handing over” of knowledge. Though Bacon’s exposition of these arts draws on disciplines other than rhetoric, and thus they do not map exactly onto the five Ciceronian canons as traditionally understood, the first three of Bacon’s arts roughly correspond to Cicero’s *inventio*, *dispositio*, and *memoria*, while Bacon’s “ART of ELOCVTION or TRADITION” takes the place of both the third and fifth of Cicero’s canons – *elocutio* (style) and *actio/pronuntiatio* (the oral delivery of an oration).

Delayed Gratification and Provisional Pleasures

When Bacon discusses rhetoric explicitly, he displays ambivalence towards it. Bacon sees rhetoric as subject to abuse but yet necessary for winning over the unlearned in particular.¹¹ Rhetoric appeals to the imagination and hence can overpower the reason and lead it astray. In his fragmentary *Of the Colours of Good and Evil*, Bacon recognizes, contrary to Quintilian and Thomas Wilson, that a persuasive speaker is not necessarily a good man (Vickers, “Bacon and Rhetoric 211–13), but continues by saying of rhetorical “colours” that, “Besides their power to alter the nature of the subiect in appearance, and so to lead to error, they are of no lesse vse to quicken & strengthen the opinions and perswasions which are true” (*Colours* fol. 42v).

Perhaps Bacon’s best-known definition of the task of rhetoric is as follows: “The dutie and Office of *Rhetoricke* is, *To apply Reason to Imagination*, for the better moouing of the will” (*Advancement* 127). Bacon’s wariness of the potential of rhetoric to distort reason through seducing the imagination parallel the suspicions of imagination found in puritan writers, in keeping with his mother’s puritan sympathies (Magnusson; Jardine and Stewart 31–32, 96–97; see Collinson on his father’s more conformist religious position). There are echoes too of Plato’s critique of rhetoric in *Gorgias* (Vickers, *Defence* 83–147). Yet, just as the Cambridge puritan minister Richard Sibbes (c.1577–1635) recognizes the possibility of “a sanctified *fancie*” (Sibbes 200), so Bacon sees the imagination as having power for good, as well as ill, in its ability to steer the will to act in accordance with the right

¹¹ This ambivalent view of rhetoric has a precedent in Lucretius’s *De Rerum Natura*, which uses the analogy of the honey of rhetoric/poetry sweetening the bitter medicinal cup of philosophy – see Asmis 50. (I owe this reference to Katherine Calloway.) For the indebtedness of Bacon’s approach to natural philosophy to that of Lucretius, see Barbour.

deliverances of reason.¹² Vickers comments that we can “understand ‘better’ as meaning not just ‘more effectively’ but ‘to better ends’” (“Bacon and Rhetoric” 203).

Hence, although rhetorical ornament is useless and potentially pernicious in the discovery of truth, it is invaluable in the transmission of truth to an audience. Bacon’s ambivalence towards rhetoric is well expressed in this passage:

But yet notwithstanding, it is a thing not hastily to be condemned, to cloath and adorne the obscuritie, euen of Philosophie it selfe, with sensible and plausible elocution. [. . .] For surely, to the seuere inquisition of truth, and the deepe progresse into Philosophie, it is some hindrance; because it is too early satisfactorie to the minde of man, and quencheth the desire of further search, before we come to a iust periode. But then if a man be to haue any vse of such knowledge in ciuile occasions, of conference, counsell, perswasion, discourse, or the like: Then shall he finde it prepared to his hands in those Authors, which write in that manner. (*Advancement* 23)

Bacon acknowledges the aesthetic satisfaction produced by rhetorical skill and flowing eloquence. But it is precisely that sense of satisfaction that endangers the onward progress of human learning and thus makes it unsuitable “to the seuere inquisition of truth.” Perhaps the smooth cadences of periodic sentences bring a premature sense of closure when the matter being discussed has not yet come “to a iust periode.” Bacon is not opposed to eloquence per se, but Bacon is opposed to prematurely polished prose, since its soothing sounds put the mind to sleep, and thus perniciously prevent people pressing on to the further progress of knowledge.¹³

For the advancement of the sciences, Bacon contends, the human race needs to have a sense not of being satisfied but of being stirred and spurred on to greater accomplishment. For these purposes, the aphoristic form is more suitable, since, Bacon says, “*Aphorismes*, representing a knowledge broken, doe inuite men to enquire further” (*Advancement* 124). It is not necessarily that the thoughts stated in aphorisms are tentative – on the contrary, Brian Vickers has noted that the aphoristic form implied a particular weight of intellectual authority in the early modern period (*Renaissance Prose* 61–70) – but that their isolation from the

¹² On puritan views of imagination, see, for instance, Kaufmann, Stevens, and Bear.

¹³ Thus Stephen Clucas: “Rhetoric to Bacon is vitiated when employed in a scientific context principally because of its tendency to procure complacency, or acceptance, because it ‘quencheth the desire of further search,’ it stifles the *progress* of scientific ideas” (150).

surrounding discourse invites readers to seek out the connections between these pieces of information and so to construct a new system rather than relying on inherited systems of knowledge (see especially Clucas, whose argument I am extending slightly here). Hence Bacon tells us that “knowledge, while it is in Aphorismes and obseruations, it is in groweth” (*Advancement* 30).¹⁴ In a fascinating recent article arguing that Oscar Wilde’s witty nineteenth-century epigrams were informed by Wilde’s reading of Bacon, Simon Reader comments that “Aphorism [...] more honestly represents the fragmented, piecemeal way in which the world and its knowers interact” (467).

Vickers observes, however, that, although Bacon is an advocate of aphorism, he does not write exclusively in aphorisms but uses aphorism selectively for special purposes. Indeed, Bacon uses periodic style to extol the advantages of aphorism:

For first, it tryeth the Writer, whether hee be superficiall or solide: For *Aphorismes*, except they should bee ridiculous, cannot bee made but of the pyth and heart of Sciences: for discourse of illustration is cut off, Recitales of Examples are cut off: Discourse of Connexion, and order is cut off; Descriptions of Practize, are cutte off; So there remayneth nothinge to fill the *Aphorismes*, but some good quantitie of Obseruation: And therefore no man can suffice, nor in reason will attempt to write *Aphorismes*, but hee that is sound and grounded. (*Advancement* 124)

Here the poised periodic sentence names and balances together the varied elements used to elaborate discourse, but ironically uses the figure of epistrophe, concluding these phrases with the repeated words “is cut off” and “are cut off,” to invoke the stripping away of these elaborating elements to leave the bare aphorism.

Although, for Bacon, the bare aphorism is a more trustworthy unit of communication for the sound advancement of knowledge, being free from the obfuscatory dangers of ornament, a more connected discourse is necessary for winning others over to accept this knowledge, a necessary process if knowledge is to be put into effect in the world. *Ratio* must be transmitted through *oratio* to bring about *operatio*.

Bacon distinguishes between “METHODE REFERRED TO VSE” of knowledge, “and METHODE REFERRED TO PROGRESSION” of knowledge, “whereof the one may bee tearmed MAGISTRALL, and the other of PROBATION” (*Advancement* 123). Janel

¹⁴ For further discussions of Bacon’s use of aphorism, see Stephens, Snider, and Jardine 176–178.

Mueller has made the persuasive suggestion that, whilst aphorism is Bacon's preferred vehicle for the probational method for the progression of knowledge itself, Bacon embraces periodic sentences as an effective vehicle for the magistral transmission of knowledge to others (68–72).

Bacon states that he is not propounding a universal theory of everything, since it would be premature to do so and he does not expect this task to be finished in his lifetime. Rather, he says, "I think it is enough if I conduct myself calmly and usefully in the middle stages of the work; and meanwhile sow seeds of a purer truth for the generations to come" (*Instauratio Magna* 175).¹⁵ Yet, even within Bacon's corpus, the seeds begin to grow into fruit-bearing trees.

Just as the isolated pieces of data obtained by observation are joined together through induction and begin to form a larger picture of reality, so the aphorisms in which they are expressed begin to join together to form longer units of discourse. This is apparent when reading through the *Novum Organum* in sequence, where the series of numbered aphorisms moves from the short succinct utterances more readily labelled as aphoristic near the beginning to longer disquisitions that join together related ideas. Alvin Snider comments on this as follows: "The aphorisms of the *Novum Organum* tend to work as points of origin or departure to which Bacon must return, pressing home his point by transforming key concepts into full-blown arguments" (66). A similar move is apparent in the chronological development of Bacon's *Essayes*, where the first edition of 1597 largely consists of loosely connected aphorisms juxtaposed under subject headings, but, in the expanded editions of 1612 and 1625, these become more coherent paragraphs producing longer discourses on the given themes (Kiernan, "General Introduction" xix–xxxviii).

Given Bacon's recognition of the contingency of human knowledge and his anxieties about the capacities of language to mislead, it is tempting for literary scholars after Derrida to read Bacon as an anti-teleological advocate of the perpetual free play of signifiers with no final resolution, but this would be to misread Bacon, since Bacon holds that "that vse of wit and knowledge is to be allowed which laboureth to make doubtfull thinges certaine, and not those which labour to make certaine things doubtfull" (*Advancement* 91).¹⁶ Bacon's intellectual

¹⁵ The Latin reads, "sed satis habemus, si in Medijs sobriè & vtilitèr nos geramus; atque interim semina veritatis sincerioris in posteros spargamus" (*Instauratio Magna* 174).

¹⁶ We must therefore qualify Reader's otherwise insightful comments that Baconian aphorism "accurately reflects the always-incomplete status of knowledge" and "combats the fantasy of total representation and systematic closure" (469) since knowledge, for Bacon, has always hitherto been incomplete, but will not forever be so. Reader perhaps hints at the quasi-eschatological direction of

project of the reformation of all knowledge and the consequent regaining of humanity's dominion over the world is intensely teleological, but it is a project whose *telos* lies beyond the capacity of one person and beyond the scope of one lifetime to accomplish.

Katherine Calloway has recently observed that, despite a biblical verse seeming to say that God's work is beyond the capacity of man to comprehend:¹⁷

In Bacon's view, Solomon was not setting bounds on "the capacity of the mind", but merely pointing out the many inconveniences that oblige humans to advance knowledge collaboratively over time. So conducted, human science "may comprehend all the universall nature of things", Bacon predicts. (Calloway 111, citing Bacon, *Advancement* 7)

Bacon's invocation of Solomon is fitting, since he describes the collaborative project of regaining dominion over the cosmos through the increase of knowledge as the building of a temple, like that which Solomon built as a place for the divine presence to dwell (McKnight esp. 24–31, 39–44; Whitney esp. 23–54; Peterfreund 37). Bacon states in the *Novum Organum* that his goal is to "lay in the human intellect the foundations of a sacred temple to the pattern of the world [*Templum sanctum ad exemplar Mundi in intellectu humano fundamus*]" (*Instauratio Magna* 180–81 [translation modified]).¹⁸

The idea of a temple of wisdom may inform the choice of the name "Salomon's House" for the curious research institute described in Bacon's unfinished utopian narrative *New Atlantis*. The pieces of data provided by experimental observation and the aphorisms in which they are stated furnish building blocks to be added to the temple of wisdom. Bacon's preference for aphorism thus marks him not as an advocate of atomism and fragmentation but rather as an advocate of delayed gratification. We should beware of being prematurely satisfied as if the temple of wisdom is complete before the task is accomplished.

Bacon's aphorisms in his observation that "Wilde associates Bacon's epigrams – his preference for short, brief expressions – with anticipatory promise, the faint possibility of a better world" (470).

¹⁷ Ecclesiastes 3:11, which Bacon renders: "God hath made all things beautifull or decent in the true returne of their seasons. Also hee hath placed the world in Mans heart, yet cannot Man finde out the worke which God worketh from the beginning to the end." (*Advancement* 6)

¹⁸ I have modified Rees and Wakely's translation (180–81) from "sacred shrine" to "temple," since, although both are legitimate translations of the Latin, "temple" better conveys the sense of a substantial building to be constructed, and also captures the resonance with Solomon's temple.

Nevertheless, Bacon does allow for provisional pleasures along the way, taking a legitimate satisfaction in the discovery of new things and the growing connectedness of knowledge. In the plan of the work that opens the *Novum Organum*, Bacon expresses a hope that the things he has already discovered “can serve as wayside inns in which the mind may find rest for a while as it presses onwards towards more certain conclusions” (*Instauratio Magna* 43, 45). The phrase that the Oxford edition translates as “wayside inns” is “*tabernaculorum in viâ positorum*” (*Instauratio Magna* 42) and perhaps there may be an additional resonance here alluding to the biblical Tabernacle, the moveable tent in which the Ark of the Covenant was kept during the journey to the promised land and before a permanent temple was built. Weary travellers of the mind can call in for refreshment at a wayside inn before continuing their journey, and there are times when pilgrims seeking the temple of wisdom can pitch their tents and rest for a while.

Works Cited

- Asmis, Elizabeth. “Rhetoric and Reason in Lucretius.” *American Journal of Philology*, 104 (1983): 36–66. Print.
- Bacon, Francis. *The Advancement of Learning [1605]*. Ed. Michael Kiernan. Oxford: Clarendon Press, 2000. Print.
- . *De Augmentis Scientiarum [1623]*. In *The Works of Francis Bacon, Baron of Verulam, Viscount St. Alban, and Lord High Chancellor of England*, 14 vols. London: Longmans et al., 1857–74. I:412–844. Print.
- . *The Essayes or Councills, Civill and Morall [1625]*. Ed. Michael Kiernan. Oxford: Clarendon Press, 1985. Print.
- . *The Instauratio Magna Part II: Novum Organum and Associated Texts [1620]*. Ed./trans. Graham Rees with Maria Wakely. Oxford: Clarendon, 2004. Print.
- . New Atlantis [1627]. In *Three Early Modern Utopias: Utopia, New Atlantis and The Isle of Pines*. Ed Susan Bruce. Oxford: Oxford University Press, 2008. 149–86. Print.
- . Of the Colours of Good and Euill a Fragment. In *Essayes: Religious Meditations. Places of Perswasion and Disswasion*. Seene and Allowed. London, 1597. Fol. 40v–69r. Print.
- Bacon, Nicholas. *The Recreations of his Age*. Oxford: Daniel Press, 1903. Print.
- Barbour, Reid. “Bacon, Atomism, and Imposture.” In *Francis Bacon and the Refiguring of Early Modern Thought: Essays to Commemorate The Advancement of Learning (1605–2005)*. Ed. Julie Robin Solomon and Catherine Gimelli Martin. Aldershot: Ashgate, 2005. 17–44. Print.
- Bear, Bethany Joy. “Fantastical Faith: John Bunyan and the Sanctification of Fancy.” *Studies in Philology*, 109 (2012): 671–701. Print.

- Briggs, John C. *Francis Bacon and the Rhetoric of Nature*. Cambridge, MA: Harvard University Press, 1989. Print.
- Calloway, Katherine. *Natural Theology in the Scientific Revolution: God's Scientists*. London: Pickering & Chatto, 2014. Print.
- Čapková, Dagmar. "Comenius and his Ideals: Escape from the Labyrinth." In *Samuel Hartlib and Universal Reformation: Studies in Intellectual Communication*. Ed. Mark Greengrass, Michael Leslie, and Timothy Raylor. Cambridge: Cambridge University Press, 1994. 75–91. Print.
- Cicero, Marcus Tullius. *De Inventione*. In *De Inventione; De Optimo Genere Oratorum; Topica*. With English trans. by H.M. Hubbell. London: Heinemann/Cambridge, MA: Harvard University Press, 1949. Print.
- Clucas, Stephen. "A Knowledge Broken: Francis Bacon's Aphoristic Style and the Crisis of Scholastic and Humanist Knowledge Systems." *English Renaissance Prose: History, Language, and Politics*. Ed. Neil Rhodes. Tempe, AZ : Medieval & Renaissance Texts & Studies, 1997. 147–172. Print.
- Collinson, Patrick. "Sir Nicholas Bacon and the Elizabethan Via Media" [1980]. In *Godly People: Essays on English Protestantism and Puritanism*. London: Hambledon. 135–154. Print.
- Comenius, Johann Amos. *Pampaedia, or Universal Education*. Trans. A.M.O. Dobbie. Dover: Buckland, 1986. Print.
- Crider, Scott F. "Eloquence Repaired: Thomas Wilson's New Myth of the Origin and Nature of Oratory." *Ben Jonson Journal* 16 (2009): 248–265. Print.
- Croll, Morris W. "Attic Prose: Lipsius, Montaigne, Bacon." *Schelling Anniversary Papers, by his Former Students*. New York: Century, 1923. 117–150. Reprinted in *Style, Rhetoric and Rhythm: Essays by Morris W. Croll*. Ed. J. Max Patrick and Robert O. Evans. Princeton: Princeton University Press, 1966. 167–202. Print.
- Eliot, T.S. "The Metaphysical Poets" [1921]. In *Selected Essays*. 3rd edn. London: Faber & Faber, 1951. 281–291. Print.
- Harrison, Peter. *The Fall of Man and the Foundations of Science*. Cambridge: Cambridge University Press, 2007. Print.
- Henderson, Judith Rice. "'Vain Affectations': Bacon on Ciceronianism in The Advancement of Learning." *English Literary Renaissance* 25 (1995): 209–234. Print.
- HRH The Prince of Wales, with Tony Juniper and Ian Skelly. *Harmony: A New Way of Looking at Our World*. London/New York: Blue Door, 2010. Print.
- Jardine, Lisa. *Francis Bacon: Discovery and the Art of Discourse*. Cambridge: Cambridge University Press, 1974. Print.
- Jardine, Lisa, and Alan Stewart. *Hostage to Fortune: The Troubled Life of Francis Bacon*. London: Gollancz, 1998. Print.

- Jewel, John. *An Apologie or Answere in Defence of the Churche of Englande with a Briefe and Plaine Declaration of the True Religion Professed and Vsed in the Same*. [Trans. Anne Cooke Bacon.] London, 1564. Print.
- Kaufmann, U. Milo. *The Pilgrim's Progress and Traditions in Puritan Meditation*. New Haven, CT: Yale University Press, 1966. Print.
- Kiernan, Michael. "Commentary on The Advancement of Learning." In *Francis Bacon, The Advancement of Learning [1605]*. Ed. Michael Kiernan. Oxford: Clarendon Press, 2000. 205–362. Print.
- . "General Introduction." In *Francis Bacon, The Essayes or Councillis, Civill and Morall [1625]*. Ed. Michael Kiernan. Oxford: Clarendon Press, 1985. xix–lii. Print.
- Loewenstein, Joseph. "Humanism and Seventeenth-Century Literature." *The Cambridge Companion to Renaissance Humanism*. Ed. Jill Kraye. Cambridge: Cambridge University Press, 1996. 269–293. Print.
- Mack, Peter. *Elizabethan Rhetoric: Theory and Practice*. Cambridge: Cambridge University Press, 2002. Print.
- . *A History of Renaissance Rhetoric 1380–1620*. Oxford: Oxford University Press, 2011.
- . *Renaissance Argument: Valla and Agricola in the Traditions of Rhetoric and Dialectic*. Leiden: Brill, 1993. Print.
- Magnusson, Lynne. "Imagining a National Church: Election and Education in the Works of Anne Cooke Bacon." In *The Intellectual Culture of Puritan Women, 1558–1680*. Ed. Johanna Harris and Elizabeth Scott-Baumann. Basingstoke: Palgrave Macmillan, 2010. 42–56. Print.
- McKnight, Stephen A. *The Religious Foundations of Francis Bacon's Thought*. Columbia, MO: University of Missouri Press, 2006. Print.
- Milton, John. Of Education [1644]. Ed. Donald C. Doran. In *The Complete Prose Works of John Milton*, volume II, ed. Ernest Sirluck. New Haven: Yale University Press, 1959. 357–415. Print.
- Mueller, Janel. "Periodos." *Renaissance Figures of Speech*. Ed. Sylvia Adamson, Gavin Alexander, and Katrin Ettenhuber. Cambridge: Cambridge University Press, 2007. 59–77. Print.
- Murphy, Daniel. *Comenius: A Critical Reassessment of his Life and Work*. Blackrock, County Dublin: Irish Academic Press, 1995. Print.
- Ong, Walter. *J. Ramus, Method, and the Decay of Dialogue: From the Art of Discourse to the Art of Reason*. Cambridge, MA: Harvard University Press, 1958. Print.
- Parry, David. "Exile, Education and Eschatology in the Works of Jan Amos Comenius and John Milton." In *Religious Diaspora in Early Modern Europe: Strategies of Exile*. Ed. Timothy Fehler, Greta Kroeker, Charles Parker, and Jonathan Ray. London: Pickering & Chatto, 2014. 47–60. Print.
- Peterfreund, Stuart. *Turning Points in Natural Theology from Bacon to Darwin: The Way of the Argument from Design*. New York: Palgrave Macmillan, 2012. Print.

- Pooley, Roger. *English Prose of the Seventeenth Century, 1590–1700*. London: Longman, 1992. Print.
- Reader, Simon. "Social Notes: Oscar Wilde, Francis Bacon, and the Medium of Aphorism." *Journal of Victorian Culture* 18 (2013): 453–471. Print.
- Rees, Graham, and Maria Wakely. Trans. *Novum Organum. Ed./trans. Francis Bacon, The Instauration Magna Part II: Novum Organum and Associated Texts*. Oxford: Clarendon, 2004. 48–447. Print.
- Reid, Steven J., and Emma Annette Wilson, eds. *Ramus, Pedagogy and the Liberal Arts: Ramism in Britain and the Wider World*. Farnham: Ashgate, 2011. Print.
- Sibbes, Richard. *The Soules Conflict with It Selfe, and Victory over It Self by Faith*. London, 1635. Print.
- Snider, Alvin. "Francis Bacon and the Authority of Aphorism." *Prose Studies*, 11 (1988): 60–71. Print.
- Stephens, James. "Science and the Aphorism: Bacon's Theory of the Philosophical Style." *Speech Monographs*, 37 (1970): 157–71. Print.
- Stevens, Paul. "Milton and the Icastic Imagination." *Milton Studies* 20 (1984): 43–73. Print.
- Vickers, Brian. "Bacon and Rhetoric." *The Cambridge Companion to Bacon*. Ed. Markku Peltonen. Cambridge: Cambridge University Press, 1996. 200–31. Print.
- . *Francis Bacon and Renaissance Prose*. Cambridge: Cambridge University Press, 1968. Print.
- . *In Defence of Rhetoric*. Oxford: Clarendon, 1988. Print.
- Wagner, Russell H. "Thomas Wilson's Arte of Rhetorique." *Speech Monographs* 27 (1960): 1–32. Print.
- Webster, Charles. *The Great Instauration: Science, Medicine, and Reform, 1626–1660*. London: Duckworth, 1975; 2nd edn., Oxford: Peter Lang, 2002. Print.
- Whitney, Charles. *Francis Bacon and Modernity*. New Haven: Yale University Press, 1986. Print.
- Wildermuth, Mark E. "The Rhetoric of Wilson's Arte: Reclaiming the Classical Heritage for English Protestants." *Philosophy and Rhetoric* 22 (1989): 43–58. Print.
- Williamson, George. *The Senecan Amble: A Study in Prose Form from Bacon to Collier*. Chicago: University of Chicago Press, 1951. Print.
- Wilson, Thomas. *The Arte of Rhetorique for the Vse of all Suche as are Studious of Eloquence, Sette Forth in English*. London, 1553. Print.