

THE MATERIAL FOUNDATIONS OF FRANCIS BACON'S UTOPIA

FUNDAMENTELE MATERIALE ALE UTOPIEI BACONIENE¹

Guido GIGLIONI

The Warburg Institute
University of London, UK
School of Advanced Study
guido.giglioni@sas.ac.uk

Abstract

*In the unfinished tract *New Atlantis*, published posthumously in 1627, Francis Bacon describes an ideal community, called Bensalem, in which the political and religious establishment takes care of facilitating the advancement of learning in all its various forms. While describing Salomon's House's aims, Bacon defines the purpose of this 'foundation' as 'the knowledge of causes, and secret motions of things'. In this essay, I will explore what Bacon meant by 'secret motions of things' and more importantly, the link that he established between the knowledge of the secret motions of things and the possibility of transforming reality in an infinite number of ways ('the effecting of all things possibile'). From other works of Bacon, including the renowned *Novum organum*, we learn that he thought of these hidden motions as a limited number of primordial appetites in matter (*Novum organum*, II, aph. 48). Bacon was of the opinion that the existence of appetitive drives inherent in matter represented the defining characteristic of both the natural and the human world. It is through knowing and subduing the appetites of matter that man can have some hope of mastering the intractable forces of nature and restoring a type of humankind in control of its appetites – i.e., the original paragon of cognitive and moral perfection embodied by the pre-lapsarian Adam.*

Key words: *knowledge, Solomon's House, natural appetites of matter, secret motion of things.*

Cuvinte cheie: *cunoaștere, Casa lui Solomon, apetitele naturale ale materiei, mișcări secrete ale lucrurilor.*

Introduction

In Francis Bacon's philosophy, the notions of *arcana naturae* and *arcana imperii* are closely intertwined. Both natural and social change are determined by the activity of primordial appetites embedded in matter – hidden and secret motions, to use Bacon's recurrent phrase – and the only way bodies (both natural and politic) can reach precarious conditions of stability is for natural and political agents to adopt increasingly subtler strategies of adaptation to the ever changing disposition of matter, strategies based on cunning, tacit knowledge and persuasion. Bacon is of the opinion that the enforcement of human laws requires a delicate mediation between the violence of self-interested passions and the condition of ideal rationality prefigured by the law. Between the extremes of *vis* and *lex*, there is a latitude in the forms of persuasion which rely on various degrees of simulation and dissimulation. [1] This dialectic is apparent in the unfinished tract *New Atlantis*. Published posthumously in 1627, *New Atlantis* describes an ideal community, called Bensalem, in which the political and religious establishment takes care of facilitating the

¹ Research for this article was made possible by a European Research Council Starting Grant under the European Community's 7th Framework Programme (five-year project on 'The Medicine of the Mind and Natural Philosophy in Early Modern England: A New Way of Interpreting Francis Bacon').

advancement of learning in all its various forms. As in Campanella's *City of the Sun*, the Latin translation of which had been circulating during the 1620s, Bacon's ideal statesman combines 'civil knowledge' (political administration) with universal learning and religious piety. [2] In the brief but important preamble to the reader, William Rawley, Bacon's chaplain, secretary, literary executor and editor of the treatise, reported that Bacon's intent in writing his 'fable' had been twofold: to provide a "model or description of a college instituted for the interpreting of nature and the producing of great and marvellous works for the benefit of men" and to outline "a frame of Laws, or of the best state or mould of a commonwealth". [3] Rawley explained that, of the two aims, the former took precedence over the latter, while the need to elaborate a blueprint for the ideal commonwealth gradually receded in Bacon's mind. This did not prevent him from giving a summary but effective description of some of the institutions and laws of Bensalem. In *New Atlantis*, Bacon gave full expression to his lifetime belief that the ideal form of government is the one that supports the project of the advancement of learning and betterment of humankind. No polity can be enlightened without learning, and learning cannot survive without an institutional basis. In the *Advancement of Learning*, published in 1605, Bacon had already written that the "excellent liquor of knowledge, whether it descend from divine inspiration, or spring from humane sense, would soone perishe and vanishe to oblyvion, if it were not preserved in Bookes, Traditions, Conferences, and Places appoynted, as Universities, Colledges, and Schooles." [4]

For all these reasons, it is not too much of a surprise that *New Atlantis* has often been described as a model of scientific utopia. One of the last authors to have characterised the isle of Bensalem in these terms is Edward O. Wilson, who in his book *Consilience* defines *New Atlantis* as a "utopian fable about a science-based society". [5] The main governing body resembles an academy of arts and sciences, called the College of the Six Days' Work or Salomon's House. According to the story recounted in *New Atlantis*, such a college – "the noblest foundation ... that ever was upon the earth; and the lanthorn of this kingdom ... dedicated to the study of the Works and Creatures of God" – had been established nineteen hundred years earlier by a mythical ruler, King Solamona, the lawgiver of the nation. [6] One of the characteristic features of Bacon's utopia is that Bensalem's organisation relies on a more advanced stage of technological knowledge than the rest of the world, and yet its traditions and mores are older, indeed, so old that they do not seem to have been affected by change. Bacon explains that it was a matter of great importance for King Solamona to find a way of joining 'humanity and policy together' so that all the laws he promoted could secure the betterment of the human condition without impairing the political and social order. [7]

So far so good, everything seems more or less in line with the narrative conventions of the utopian genre. [8] Things become more distinctively Baconian when we pass to examine Bacon's description of Salomon's House's aims: "The End of our Foundation is the knowledge of Causes, and secret motions of things; and the enlarging of the bounds of Human Empire, to the effecting of all things possible." [9]

What did Bacon mean by secret motions of things? More importantly, what is the link that connects the knowledge of the secret motions of things to the possibility of transforming reality in an infinite number of ways ('the effecting of all things possibile')? From other works of Bacon, including the renowned *Novum organum*, we learn that he thought of these hidden motions as a limited number of primordial appetites in matter (*Novum organum*, II, aph. 48). [10] The fact we need to keep constantly in mind in our analysis of Bacon – indeed, a brutal fact in his philosophy – is precisely the assumption that the ultimate defining characteristic of both the natural and the human world is the existence of appetitive drives inherent in matter. It is through knowing and subduing the appetites of matter that man can master the intractable forces of nature and restore a type of humankind in control of its appetites – i.e., the original paragon of cognitive and moral perfection embodied by the pre-lapsarian Adam. [11]

Means of restraining the natural appetites of matter

It is well known that action and the practical applications of knowledge play an important role in Bacon's philosophy. As he argues in the aphorism 127 of the first part of the *Novum organum*, the new method of interpreting nature – induction – is not to be applied only to “the motions and discourses of the mind”, but also to “the nature of things”. Since appetite is the innermost nature of things, acquisition of knowledge cannot be separated from mastery of appetites, both natural and civil. In other words, there cannot be a proper management of human affairs without a study of natural bodies. In the *Advancement of learning*, Bacon characterises civil knowledge as “a subject which of all others is most immersed in matter”, meaning that the complexity and opaqueness of the appetitive life is at their highest in that domain. [12] In the *Sapientia veterum*, he has Orpheus represent philosophy, and significantly he is portrayed as capable of attracting both infernal powers (i.e., natural philosophy) and wild beasts (i.e., moral and civil philosophy). In Bacon's richly emblematic language, this means that philosophy in the domain of natural knowledge aims at the conservation of natural things (“restitution and renovation of things corruptible”), while in the domain of civil knowledge teaches men “to forget their ungoverned appetites”. In both cases, it is a matter of securing the control of the appetites. Orpheus had already made his appearance in the *Advancement of Learning*. There he symbolised the power that learning exercises on both “relieving the necessities which arise from nature” and “repressing the inconveniences which grow from man to man”: “which merite was lively set forth by the Ancients in that fayned relation of *Orpheus Theater*; where all beasts and birds assembled: and forgettin their severall appetites; some of pray, some of game, some of quarrell, stood all sociably together listening unto the ayres and accords of the Harpe; the sound whereof no sooner ceased, or was drowned by some lowder noyse; but everie beast returned to his owne nature.”[13]

This mythological device, Bacon continues, throws light upon “the nature and condition of men”, who “are full of savage and unreclaymed desires; of profite, of lust, of revenge”. The moral behind Orpheus' myth is that the domestication of the appetites passes through the civilising effect of culture: “as long as they [the appetites] give eare to precepts, to lawes, to religion, sweetly touched with eloquence and perswasion of Bookes, of Sermons, of haranges; so long is societies and peace maintained; but if these instruments bee silent; or that sedition and tumult make them not audible; all things dissolve into Anarchie and Confusion.”[14]

To find ways of moving and containing appetites and wills is therefore crucial. Bacon does not miss an opportunity to insist on the importance of finding such ways. No doubt, he assumes that laws exercise a certain influence over the appetites, but in general he considers laws to work like palliative remedies. [15] In the section of the *Advancement of Learning* devoted to the “culture and cure of the mind”, Bacon acknowledges the fact that fortune and nature are “without our command”; in this case we need to proceed by ‘application’ (or ‘accommodation’), that is, by gradually adjusting ourselves to each specific situation determined by natural conditionings and contingent events. A particularly useful procedure “in moral and civil matters” is to apply strategies of mutual control based on sophisticated systems of checks and balances. In this way, Bacon adds, we know how “to set affection against affection, and to master one by another” – “as we use to hunt beast with beast and fly bird with bird”. Bacon specifies that, by definition, appetites are factional. Factions, though, can also be a remedy, “for as in the government of states it is sometimes necessary to bridle one faction with another, so it is in the government within”.

Custom, however, “the Principall Magistrate of Mans life”, is more powerful than the institution of laws and a shrewd use of factional disputes. [16] In *A Letter and Discourse to Sir Henry Savile, touching helps for the intellectual powers*, Bacon expands on the power of habit: “as to the body of man, we find many and strange experiences how nature is overwrought by custom, even in actions that seem of most difficulty and least possible. As first in Voluntary Motion; which though it be termed voluntary, yet the highest degrees of it are not voluntary; for it is in my power and will to run; but to run faster than according to my lightness or disposition of body, is not in my

power nor will. We see the industry and practice of tumblers and funambulos, what effects of great wonder it bringeth the body of man unto.”[17]

Bacon adds a list of other instances to demonstrate “how variously, and to how high points and degrees, the body of man may be (as it were) moulded and wrought”. After the body, he turns his attention to the will. In this domain, religion is “the most sovereign of all”, being able to change and transform the will “in the deepest and most inward inclinations and motions”. Then it is the turn of ‘opinion and apprehension’ (‘whether it be infused by tradition and institution, or wrought in by disputation and persuasion). A third way of mastering human will comes from the use of examples, while a fourth strategy is the method of using one affect to heal and correct another. ‘And lastly’ – Bacon thus concludes this section – “when all these means, or any of them, have new framed or formed human will, then doth custom and habit corroborate and confirm all the rest”. [18] In the *Essays*, Bacon expands on the irresistible power of custom, characterising it as such a force that men, for all their protestations to the contrary, act in the end “[a]s if they were Dead Images, and Engines moved onely by the wheelles of *Custom*”. [19] When custom is transformed into a social force, then its force intensifies: “if the Force of *Custom* Simple and Separate, be Great; the Force of *Custom* Copulate, and Conjoynd, and Collegiate, is far Greater. For there Example teacheth; Company comfortheth; Emulation quickeneth; Glory raiseth: So as in such Places the Force of *Custom* is in his Exaltation. Certainly, the great Multiplication of Vertues upon Humane Nature, resteth upon Societies well Ordained, and Disciplined.”[20]

Bensalem in *New Atlantis* looks exactly like the perfect realisation of such an ‘ordained and disciplined’ society. Indeed, one of the most striking aspects of Bacon’s model of utopia is the coexistence of futuristic projections that rely on scientific innovation and the tenacious persistence of immemorial traditions and customs, of technological secularisation and religious conservatism. In each single individual and in the society as a whole, custom works like the mechanisation of the force of appetite. This is the reason why a ritual like the Feast of the Family plays such an important role in Bensalem and why Bensalemites’ social behaviour has appeared to some historians as characteristic of lobotomised people. [21] In the *Novum organum*, Bacon had argued that the human effort to acquire knowledge can be transformed into a reliable process, capable of progress, only when it is harnessed by a method that has the impersonal regularity and cogency of a mechanical process (*res veluti per machinas conficiatur*). [22] The Feast of the Family is a rite that celebrates and re-enacts the taming of the force of generation (propagation and longevity). Not by accident, the description of Bensalem’s social rituals is also the opportunity for Bacon to hint at the conflicting character of natural impulses in man. The description of the sexual habits of the Bensalemites, their chaste and modest demeanour, allows him to reiterate that in the isle the appetites of matter have been curbed and are kept in check.

As already said, in Bacon’s philosophy there is a basic correspondence between the motions of the mind and the motions of the bodies, between the ‘globe of the intellect’ and the ‘globe of matter’. [23] The correspondence is based on the fact that both orders of reality are rooted in the unstable realm of appetitive drives. Bacon is of the opinion that both human and natural creativity – *ingenia* and *conatus* – are arbitrary forces. As a ‘ruler’ (*regula*) is the remedy against the bewilderment of knowledge, so custom is the force that disciplines the unruliness of human action. The ‘new organon’ – i.e., the reorganisation of man’s mental faculties – and the New Atlantis – i.e., the reorganisation of the social order – work in parallel. This is the fundamental reason why the chief institution in Bensalem, devoted to the study of the appetites in matter (i.e., the ‘secret motions of things’), is also in charge of preserving the political order. Men of science are in power because by knowing the appetites of matter they have a better knowledge of the roots of human appetites.

The conservation of the body politic and the exchange of knowledge

The centrality of appetites in Bacon's philosophy also explains why secrecy looms large in Bensalem and not all sources and types of knowledge can be disclosed. The reason is that appetites need to be circumvented in order to be governed. The establishment of the general good can only derive from a shrewd combination of enlightened knowledge and compulsory management of private desires. Appetites are atomic and self-interested. In Bacon's view, they have no knowledge of the direction of their tendencies. However, they can be manipulated by all sorts of 'invisible hands', and, as we have already seen, custom is the most forceful of them. In this connection, the figure of what I would call the 'unknown knower', of the 'spy' in a way, is of decisive importance in Bacon's philosophy, not only in *New Atlantis*. No communication of knowledge or social bond would be possible in a scenario where everything is ruled by blind appetites. A mechanism whereby a multiplicity of self-interested appetites converges towards the realisation of a more comprehensive purpose has to be put in place. Such mechanism is the device of knowing without being known, of seeing without being seen. In *New Atlantis*, Bacon describes a number of strategies which allow the fellows of Salomon's house to know and yet remain unknown: persuasion (people who happen to land on the island are convinced to stay; those who decide to go back home will not be taken seriously once they are back in their native countries), cunning of reason (people think they are pursuing their interests but in fact they are unwittingly working for a broader plan, as pawns in a game of which they do not know the rules) and the heterogenesis of individual ends (what appears to be limited in knowledge and selfish in action is, in fact, a stage towards deeper knowledge and more stable order).

The partially secretive nature of the scientific enterprise as is represented in *New Atlantis* mirrors the partially secretive nature of politics. Both the scientific and the political programme deal with the constitutively oblique and devious nature of material cupidity. There is a constant tension between enlightenment and ignorance, publicity and censorship in Bacon's work. Production and dissemination of knowledge rely on strategies of disclosure and concealment. The enlightenment of the few feeds upon the ignorance of the many. There is no doubt that the perception of Bacon's persona as the father of the Enlightenment is one of the reasons behind his persistent iconic status. And yet, as readers of Bacon's works, we cannot help asking ourselves the key question of whether enlightenment is for Bacon a condition that is open to everyone.

If we look at Bensalem by considering the interplay of visibility and invisibility, of knowing and not being known, Bensalem appears to be like a microcosmic representation of Bacon's universe, in which order is a result of varying degrees of knowledge. From the fellows of Salomon's House down to the strangers storm-tossed in the island, we find a hierarchical distribution of knowledge. Salomon's House, the institution at the centre of the political and social life of the island, seems to be characterised by a certain degree of invisibility. The select few who belong to it are not always visible or recognisable. In Bacon's story, they appear in special circumstances. The best exemplification of the unknown-knower situation in *New Atlantis* is the explanation of the way in which Bensalemites gather information and intelligence from the other corners of the world. In so doing, they seem to have struck a balance between secrecy and publicity: they travel to collect knowledge and new inventions, but they work in incognito and avoid being recognised as traders in knowledge. Industrial espionage of a higher kind is what they do. Bacon calls these collectors of intelligence with the noble name of 'merchants of light'. [24]

If this is the case, then we are confronted with a fundamental problem concerning the view outlined in *New Atlantis*. Bacon adopts the genre of utopian literature and purports to be describing an ideal commonwealth, but in fact his philosophy as a whole rests upon a form of blunt realism, where man's unremitting tendency to produce rationalisations and idealisations of reality is constantly and severely criticised. Bacon does not miss an opportunity to condemn the abstractness of imaginary constructions, be they philosophical or political. It is worth remembering that *New Atlantis* appeared in 1627, as an appendix at the end of *Sylva sylvarum*, the work in which Bacon

outlined an experimental treatment of the natural appetites of matter. Rawley expressly emphasised that “his Lordship designed [*New Atlantis*] for this place; in regard it hath so near affinity (in one part of it) with the preceding Natural History”. [25] If this is the case, given the inescapable reality of the appetites of matter, entirely resolved in the immediacy of the present, we are led to ask the question whether there is a place for reason in Bacon’s philosophy, and not just ‘prudential’ reason, but a project for universal reason to be implemented in the future. Can the immediate gratification of the appetites be postponed through long-term plans implemented by a far-sighted reason? In the *Novum organum*, at the end of the *Distributio operis* (i.e., the description of the plan of the work), Bacon asks God for direct revelations of truth, not dreams of the imagination: “the whole idea is never to take one’s eyes off things themselves, and to take in their images just as they are. For God forbid that we give out a fantastic dream (*phantasiae nostrae somnium*) for a pattern of the world (*exemplar mundi*), but rather may He graciously grant that we write a revelation and true vision of the Creator’s footprints and impressions upon His creatures (*ut Apocalypsim, ac veram visionem vestigiorum et sigillorum Creatoris super Creaturas, scribamus*).”[26]

A number of pre-modern philosophical doctrines share the view that true knowledge is in the end a form of wisdom. To cut a long story short, the subject who knows must also be good. In *New Atlantis*, instead, the connection between knowledge and action is never discussed openly. Here the key moment of ethical mediation seems to have disappeared, while the practical dimension of knowledge coincides entirely with technology. One of the reasons behind the feeling of uncanny displacement that pervades Bacon’s account of Bensalem lies in the lack of precise information concerning the political, economical and religious institutions of the island. Another characteristically pre-modern view is that the ethical reasons should prevail over the political ones. Aristotle famously began the seventh book of his *Politics* with the following statement concerning ideal commonwealths: “The student who is going to make a suitable investigation of the best form of constitution must necessarily decide first of all what is the most desirable mode of life (*αιρετώτατος βίος*).”[27]

By contrast, on this point Bacon seems to be closer to Machiavelli and to anticipate Hobbes. Happiness and moral order can only derive from a political handling of men’s desires that relies on varying distributions of knowledge, far-sighted occlusion of information and the ability to maintain conditions of cognitive gap among different social classes. The need to establish a lasting political order prevails over the moral reasons that may justify it. It is well known that the fellows of Salomon’s House keep some discoveries and knowledge hidden because of their potentially subversive power. A number of scholars have precisely pointed to situations of this kind to stress the interplay of exoteric and esoteric motifs in Bacon’s notions of knowledge and power. [28]

On the other hand, not everything is dark and twisted in Bacon’s Bensalem. After all, at the end of the treatise, the Father of Salomon’s House entrusts the narrator with the task of revealing the existence of New Atlantis and describing its wondrous organisation to the outside world. The conclusion (although, to speak properly, the work is left without a conclusion) points to disclosure and enlightenment. By dispensing with the fear of being discovered, the fellows of Salomon’s House seem to reach the genuinely utopian level of universal enlightenment. At the end of the tale, the darkness of ignorance is dispelled by the light of knowledge. It is a sort of a happy ending, which, though, takes the form of an interruption, one of the many interruptions that riddle the course of the narration. As already said, according to Bacon’s very instructions, *New Atlantis* needs to be read after the *Sylva sylvarum*, the forest of the forests, a most intricate and entangled collection of experiences. And after the feeling of having lost our way in the endlessly meandering paths of the experimental forest, we are confronted with the disorientation of finding ourselves in the middle of a boundless ocean – “finding ourselves in the midst of the greatest wilderness of waters in the world, without victual, we gave ourselves for lost men, and prepared for death”. [29] Indeed, *New Atlantis* can be seen as staging a process of initiation, and this on several levels. First, it is a movement from the outside to the inside, from the condition of being lost to an unexpected chance of finding salvation, from a period of seclusion (in the Strangers’ House) to participation in

the communal life of the island (the Feast of the Family). As Bronwen Price writes in the introduction to a collection of essays on *New Atlantis*, “the crew shift from being offshore, to quarantine, to gradually gaining more freedom of movement and, in turn, more access to the inner workings of Bensalem”. [30] The process of initiation also involves a shift from a multitude (the whole crew) to one person (the narrator), from the plural first-person pronoun (‘we’) to the singular one (‘I’).

Conclusion

Elusiveness and ambivalence seem to be ineliminable traits of Bacon’s *New Atlantis*, so much so that, in the end, one is almost compelled to ask: What’s going on in Bensalem? Behind the usual feelings of being estranged and having lost one’s way, which are typical of the literary genre of travel narrative, a peculiar sense of uneasiness pervades the tale. Everything seems to waver between strangeness and familiarity, inside and outside, the part and the whole, between past (the jealous preservation of traditions) and future (technological innovation). The sailors (and the reader together with them) are exposed to a double-bind situation, in which different and sometimes contradictory messages are delivered by people who are in a higher position of both knowledge and power. The atmosphere is dreamy. All the conversations are abruptly interrupted. After all, the discovery of Bensalem is described by Bacon as an experience between life and death. Is the arrival of the crew really an accidental landing or a staged shipwreck? Did the sailors arrive there by accident or because drawn by powerful technological means? Did they really find salvation in the island? Is Bensalem a ‘land of angels’ or a ‘land of magicians’? Is its stunning organisation the product of a real miracle or an imposture? Are the extraordinary phenomena happening in the isle, both told and seen, divine miracles, works of nature, works of art or even ‘illusions of all sorts’? Undeniably, the interplay of nature and supernature, knowledge and revelation has lost the half ironic, half optimistic tones of Plato’s ‘fables’. More than an organisation established to share information among ever-wider circles of people, Salomon’s House looks like an institution devoted to bureaucratic surveillance and industrial espionage (seeing without being seen). The greatest contradiction of all, however, lies in the fact that the writing of *New Atlantis* is an infringement of the more or less tacit rule that foreigners are not supposed to reveal things about Bensalem: in the last pages of the book the Father intimates the narrator to write exactly the book we are reading. We may say, therefore, that in the end, albeit in an oblique manner, enlightenment seems to prevail.

References

1. Bacon, F., *De augmentis scientiarum*, in *Works*, ed. by Spedding, J., Ellis, R. L. and Heath, D. D., 14 vols, Longman, London, 1857-1874, I, p. 803.
2. On Campanella’s possible influences on Bacon’s *New Atlantis*, see: Blodgett, Eleanor D., ‘Bacon’s *New Atlantis* and Campanella’s *Civitas Solis*: A Study in Relationships’, *PMLA*, 46 (1931), pp. 763-780; Davis, J. C., *Utopia and the Ideal Society. A Study of English Utopian Writing, 1516-1700*, Cambridge University Press, Cambridge, 1981, p. 123.
3. Bacon, F., *New Atlantis*, WFB III, p. 127.
4. Bacon, F., *Advancement of Learning*, ed. by Kiernan, M., Clarendon, Oxford, 2000, p. 56.
5. Wilson, E. O., *Consilience. The Unity of Knowledge*, Abacus, London, 1999, p. 28.
6. Bacon, F., *New Atlantis*, in *The Major Works*, ed. by Vickers, B., Oxford University Press, Oxford, 1996, p. 471.
7. Bacon, F., *New Atlantis*, in *The Major Works*, ed. by Vickers, B., Oxford University Press, Oxford, 1996, p. 471.
8. For a study of *New Atlantis* within the context of contemporary utopian literature in early modern English culture, see Giglioni, G., ‘Fantasy Islands: *Utopia*, *The Tempest* and *New Atlantis* as Places

- of Controlled Credulousness', in Kavey, A. B., ed., *World-Building and the Early Modern Imagination*, Palgrave Macmillan, New York, 2010.
9. Bacon, F., *New Atlantis*, in *The Major Works*, ed. by Vickers, B., Oxford University Press, Oxford, 1996, p. 480.
10. Bacon, F., *The Instauration magna Part II: Novum organum and Associated Texts*, ed. by Rees, G. and Wakely, M., Clarendon Press, Oxford, 2004, pp. 382-417.
11. On the motif of the post-lapsarian corruption of mental faculties in the early modern period, see Harrison, P., *The Fall of Man and the Foundations of Science*, Oxford University Press, Oxford, 2007.
12. Bacon, F., *Advancement of Learning*, ed. by Kiernan, M., Clarendon, Oxford, 2000, p. 156.
13. Bacon, F., *Advancement of Learning*, ed. by Kiernan, M., Clarendon, Oxford, 2000, p. 39.
14. Bacon, F., *Advancement of Learning*, ed. by Kiernan, M., Clarendon, Oxford, 2000, p. 39.
15. Bacon, F., *Reading of the Statute of Uses*, WFB VII, pp. 417-418: "new laws are like the apothecaries' drugs; though they remedy the disease, yet they trouble the body: and therefore they use to correct them with spices. So it is not possible to find a remedy for any mischief in the commonwealth, but it will beget some new mischief; and therefore they spice their laws with provisoes to correct and qualify them".
16. Bacon, F., *The Essayes or Counsels, Civill and Morall*, Clarendon Press, Oxford, 1985, p. 121.
17. Bacon, F., *A Letter to Sir Henry Savile*, in *The Major Works*, ed. by Vickers, B., Oxford University Press, Oxford, 1996, pp. 115-116.
18. Bacon, F., *A Letter to Sir Henry Savile*, in *The Major Works*, ed. by Vickers, B., Oxford University Press, Oxford, 1996, p. 117.
19. Bacon, F., *The Essayes or Counsels, Civill and Morall*, Clarendon Press, Oxford, 1985, p. 121.
20. Bacon, F., *The Essayes or Counsels, Civill and Morall*, Clarendon Press, Oxford, 1985, p. 122.
21. See Weinberger, J. 'On the Miracles in Bacon's New Atlantis', in Price, B., ed., *Francis Bacon's New Atlantis: New Interdisciplinary Essays*, Manchester University Press, Manchester and New York, 2002, p. 107.
22. Bacon, F., *The Instauration magna Part II: Novum organum and Associated Texts*, ed. by Rees, G. and Wakely, M., Clarendon Press, Oxford, 2004, pp. 54-55.
23. Bacon, F., *De augmentis scientiarum*, WFB I, p. 772: "legitimae inquisitionis vera norma est, ut nihil inveniatur in globo materiae, quod non habeat parallelum in globo crystallino sive intellectu".
24. On the paradigmatically Baconian situation of 'knowing without being known', see Davis, J.C., *Utopia and the Ideal Society. A Study of English Utopian Writing, 1516-1700*, Cambridge University Press, Cambridge, 1981, pp. 108-109.
25. Bacon, F., *New Atlantis*, WFB, III, p. 127. On the relationship between *Sylva Sylvarum* and *New Atlantis*, see Colclough, D., 'The Materialls for the Building: Reuniting Francis Bacon's *Sylva Sylvarum* and *New Atlantis*', *Intellectual History Review*, 20 (2010), pp. 181-200. On Bacon's experimental programme on material appetites, see Giglioni, G. 'Mastering the Appetites of Matter. Francis Bacon's *Sylva Sylvarum*', in Wolfe, C. T. and Springer, O. Gal, eds., *The Body as Object and Instrument of Knowledge. Embodied Empiricism in Early Modern Science*, Dordrecht, 2010, pp. 149-167.
26. Bacon, F., *The Instauration magna Part II: Novum organum and Associated Texts*, ed. by Rees, G. and Wakely, M., Clarendon Press, Oxford, 2004, p. 45. Brian Vickers shows the influence of the genre of the 'sacred dialogue' (the second book of Esdras, for instance) in the way in which the Father of Salomon's House unveils his knowledge to the narrator (*New Atlantis*, in *The Major Works*, ed. by Vickers, B., Oxford University Press, Oxford, 1996, p. 786).
27. Aristotle, *Politics*, VII, 1, 1323a; trans. Rackham, H., Harvard University Press, Cambridge (Mass.), 1932, p. 533. See Colclough, David 'Ethics and Politics in the *New Atlantis*', in Price, B., ed., *Francis Bacon's New Atlantis: New Interdisciplinary Essays*, Manchester University Press, Manchester and New York, 2002, pp. 60-81.

28. Weinberger, J., *Science, Faith, and Politics: Francis Bacon and the Utopian Roots of the Modern Age*, Cornell University Press, Ithaca and London, 1985; Faulkner, R. K., *Francis Bacon and the Project of Progress*, Rowman and Littlefield, Lanham (Maryland), 1993; Wortham, S., 'Censorship and the Institution of Knowledge in Bacon's *New Atlantis*', in Price, B., ed., *Francis Bacon's New Atlantis: New Interdisciplinary Essays*, Manchester University Press, Manchester and New York, 2002, pp. 180-198.
29. *New Atlantis*, in *The Major Works*, ed. by Vickers, B., Oxford University Press, Oxford, 1996, p. 457.
30. Price, B., 'Introduction' in Price, B., ed., *Francis Bacon's New Atlantis: New Interdisciplinary Essay*, Manchester University Press, Manchester and New York, 2002, p. 5.

Bibliography

1. Aristotle, *Politics*, ed. by Rackham, H., Harvard University Press, Cambridge (Mass.), 1932.
2. Bacon, F., *Works*, ed. by Spedding, J., Ellis, R. L. and Heath, D. D., 14 vols, Longman, London, 1857-1874,
3. Bacon, F., *The Essayes or Counsels, Civill and Morall*, Clarendon Press, Oxford, 1985.
4. Bacon, F., *The Major Works*, ed. by Vickers, B., Oxford University Press, Oxford, 1996.
5. Bacon, F., *Advancement of Learning*, ed. by Kiernan, M., Clarendon, Oxford, 2000.
6. Bacon, F., *The Instauration magna Part II: Novum organum and Associated Texts*, ed. by Rees, G. and Wakely, M., Clarendon Press, Oxford, 2004.
7. Blodgett, E. D., 'Bacon's *New Atlantis* and Campanella's *Civitas Solis*: A Study in Relationships', *PMLA*, 46 (1931), pp. 763-780.
8. Colclough, David, 'Ethics and Politics in the *New Atlantis*', in Price, B., ed., *Francis Bacon's New Atlantis: New Interdisciplinary Essays*, Manchester University Press, Manchester and New York, 2002, pp. 60-81.
9. Colclough, D., 'The Materials for the Building: Reuniting Francis Bacon's *Sylva Sylvarum* and *New Atlantis*', *Intellectual History Review*, 20 (2010), pp. 181-200.
10. Davis, J. C., *Utopia and the Ideal Society. A Study of English Utopian Writing, 1516-1700*, Cambridge University Press, Cambridge, 1981.
11. Faulkner, R. K., *Francis Bacon and the Project of Progress*, Rowman and Littlefield, Lanham (Maryland), 1993.
12. Giglioni, G., 'Mastering the Appetites of Matter. Francis Bacon's *Sylva Sylvarum*', in T. Wolfe, C. and Springer, O. Gal, eds., *The Body as Object and Instrument of Knowledge. Embodied Empiricism in Early Modern Science*, Dordrecht, 2010, pp. 149-167.
13. Giglioni, G., 'Fantasy Islands: *Utopia*, *The Tempest* and *New Atlantis* as Places of Controlled Credulousness', in Kavey, A. B., ed., *World-Building and the Early Modern Imagination*, Palgrave Macmillan, New York, 2010.
14. Harrison, P., *The Fall of Man and the Foundations of Science*, Oxford University Press, Oxford, 2007.
15. Weinberger, J., *Science, Faith, and Politics: Francis Bacon and the Utopian Roots of the Modern Age*, Cornell University Press, Ithaca and London, 1985.
16. Weinberger, J., 'On the Miracles in Bacon's *New Atlantis*', in Price, B., ed., *Francis Bacon's New Atlantis: New Interdisciplinary Essays*, Manchester University Press, Manchester and New York, 2002.
17. Wilson, E. O., *Consilience. The Unity of Knowledge*, Abacus, London, 1999.
18. Wortham, S., 'Censorship and the Institution of Knowledge in Bacon's *New Atlantis*', in *Francis Bacon's New Atlantis*, pp. 180-198.