8

‘Strange things so probably told’: gender, sexual difference and knowledge in Bacon’s *New Atlantis*

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I

Let us establish a chaste and lawful marriage between mind and nature, with the divine mercy as bridewoman.¹

I am come in very truth leading to you Nature with all her children to bind her to your service and make her your slave ... so may I succeed in my only earthly wish, namely to stretch the deplorably narrow limits of man’s dominion over the universe to their promised bounds.²

The human mind in studying nature becomes big under the impact of things, and brings forth a teeming brood of errors.³

Man, being the servant and interpreter of nature can do and understand so much and so much only as he has observed in fact or in thought of the course of nature ... nature to be commanded must be obeyed.⁴

Bacon’s persistent use of gendered and sexualised metaphors in his scientific and philosophical writings is undeniable: but there is disagreement amongst critics over the significance of these metaphors. Baconian science has been accused of naturalising the discourse of science as one in which the proper object of scientific enquiry, nature, was feminised as a sexual object to be invaded, enquired into and dominated by masculine science.⁵ Feminist

critics argue that the separation of the object of enquiry (nature/feminine/other) and subject (scientist/masculine/self) aided the development of a technological society in which an ethics of ecology (humankind as an integral part of nature) became philosophically and imaginably impossible.⁶

But Bacon uses sexualised and gendered metaphors in a more complex way than critical history allows. Was he really the 'founding father'⁷ of a binary epistemology that linked reason, masculinity and knowledge in contradistinction to feeling, femininity and matter? The metaphors of chaste marriages and legitimate children certainly invoke the discourse of seventeenth-century patriarchy, but it is noticeable that the description of marriage is one of mutuality and equity ('nature to be commanded must be obeyed'). Bacon's utopian text, the *New Atlantis*, is both a literal representation and an allegorical figuration of Bacon's ideal society. Both sexual difference and gender are prominent literal and allegorical signifiers within the tale, and are therefore central to any interpretation of the text and to Bacon's epistemology. Concepts of sexual difference and gender in the *New Atlantis* inform and mark the way he asks us to think about science: but both the way of knowing and the object of knowledge do not subsist in a hierarchical gendered opposition. Instead, sexual difference and gender are both more equitable, more ethical and more fluid signifiers of our relationship with the natural world than has generally been recognised.

This essay raises four theoretical issues about the *New Atlantis*, Bacon's epistemology and its link to gender and sexual difference. First, a utopia is a description of an ideal society:⁸ if gender and sexual difference are central to Bacon's new epistemology, this should be textually transparent. Second, more complex analyses of the utopian genre suggest that the utopian text betrays a dialectical relationship to its originating society and ideology. Jameson, for example, argues:

all genuine utopias betray a complicated apparatus which is designed to 'neutralise' the topical allusion, at the same time that it produces and reinforces it.⁹

Utopian texts demonstrate rhetorically and narrationally their originating ideological contradictions and debates by displacing

them into a fictional no-where. This, in turn, offers ways of re-thinking these ideologies. In other words, utopian fiction simultaneously displaces and asserts its critique of contemporary power relations and structures. The *New Atlantis*, then, should demonstrate this dialectical relationship to both its topical sources and its proposed ideal society.¹⁰ Jameson's approach, however, offers an additional and fruitful avenue of thought, leading us to consider to what extent gender and sexual difference in the *New Atlantis* may 'neutralise' radical scientific proposals, or be key to the topical critique of contemporary ideology. Third, gender is a key signifier of difference and status in the early modern period, marshalled and manipulated by writers grappling with concepts of difference and status in fields other than those of gender and sexuality. Consequently, representations of gender and sexual difference also narrate and challenge power structures, including those of dominant epistemologies.¹¹ Fourth, given that gender representations are implicated in power structures, the utopian genre, by creating a 'neutral' place from which to view its originating culture, is a key genre through which contemporary gender ideology and its link with Bacon's reformulation of epistemology is displayed and displaced.

This essay aims to re-historicise the marshalling of gender in the *New Atlantis* and to argue that an understanding of Bacon's use and manipulation of the utopian genre helps re-articulate the gendering of his epistemology. As a consequence of our theoretical approach, there are some key questions to ask about gender and sexual difference in the *New Atlantis*. To what extent are gender and sexual difference presented in normative terms within the text and how do they relate to contemporary writings about, and contests over, gender? Do they, for example, contest Jacobean political norms? Does utopian discourse reconfigure gender and sexual difference, and in what ways does the *New Atlantis* shed a different light on the epistemological and gendered paradigm described by his critics?¹²

Sexual difference and gender are displayed, both literally and allegorically, within the fable: yet such images are carefully placed rhetorically, structurally and symbolically. Bacon asks us to renew our ways of looking at the world, and both sexual difference and gender are part of this re-visioning. This essay

will first argue that the structural placing of gender issues crucially determines our interpretations, and then assess Bacon's literal and symbolic use of gender difference in the light of his utopian discourse.

II

There are two discernible and interlinking tripartite structures to the fable: the sequential linear narrative structure and the thematic content. The linear structure moves us gradually closer to the centre of the island's meaning:¹³ the travellers' arrival told through the narrator's eyes; the island's history and relationship with the outside world narrated by the Governor; finally, the island's customs, narrated directly through the narrator's experience, conversations with Joabin, and the words of the Father of Salomon's House. The tripartite thematic structure displays the relations between the island and the outside world; the marital, familial and sexual habits and structures of the island; and an account of Salomon's House and the new science. Linear and thematic structures are carefully ordered to manipulate and initiate the reader. The reading time of the fable traces the reader's and narrator's gradual movement from exclusion to inclusion in the new world. The narrator, men and reader are first confined in the liminal position of the Strangers' House and access knowledge only through the narration of past history, before being permitted to move into present experience and future possibilities. Grammatical tenses mimic this movement through time, from past historic, through the present tense to the future.

The thematic structure moves on a parallel axis: from an understanding of the island and the outside world; to knowledge of familial structures, including those of gender and sexual difference; and, finally, to knowledge of the work of Salomon's House. Bacon's discussion of gender and sexual difference is significantly placed. It follows the readers' initiation; it precedes an account of the scientific praxis; and it acts as a metonymic signifier for the whole social and political organisation of Bensalem's civic society. Why does Bacon structure our encounter with gender thus? A close reading of the opening section will provide some answers.

When the travellers first reach the island events are recounted through the eyes of the narrator in a straightforward and lucid style, which nevertheless belies the strange contents. The events and people described are inversions of both European habits and of travellers' tales of the new world, intermixed with the standard motifs of early travel writing. Utopian otherness is not portrayed simply as an inverted world: it combines inversions of generic conventions (of travel writing, scientific discovery, and political philosophy) with conventions signifying in an expected way. This juxtaposition of the unexpected with the expected, the unknown with the known, is a rhetorical ploy typical of the first part of the fable's tripartite structure. There are eight reversals in the opening section, each of which restructure our view on the world. The first four inversions are: the 'wilderness' which provides 'salvation',¹⁴ a reversal with both Biblical and travelogue precedent; the discovered land being a 'fair city', rather than uninhabited and undeveloped, an inversion recognised by readers familiar with More's *Utopia*; the initial absence of an ascribed gender to the 'undiscovered' land, which conventionally would be identified as female;¹⁵ the description of the islanders, who are dressed in European style and speak Greek, Latin, Spanish and Hebrew (458), and thus inverts the conventional travelogue's depiction of native peoples.

Bacon uses a consistent rhetorical technique for these inversions: travelogue narrative conventions, followed by a shift of perspective through purportive new eye-witness evidence. The reader becomes a participant in changes of perception and taxonomy. The third and fourth inversions act as a commentary on the first two: they displace the 'othering' of the new world, not by assimilating its description to European conceptions and conventions, or asserting an imperial and epistemological hierarchy,¹⁶ but by placing the visitors (and hence readers) in the subordinated position. We are estranged from our habitual hierarchical taxonomy of and in the new world. It is not 'nature' that provides salvation, as it does in the travelogues, but 'culture'. However, this is a culture displaced from time, European history and conventions. Two of these inversions are *topoi* found in More's *Utopia* and Plato's *Timaeus*, but the unnamed and ungendered land is Bacon's innovation, read in juxtaposition to the

normative symbolism of the new world as natural paradise. Hence, there are two contradictory representations of the nature/culture opposition, from which gender and sexuality are conspicuously and unusually absent.

The next four inversions also encourage a critique of Western imperial and gendered hierarchies. The sailors' offer of merchandise to the islanders is rejected (458), a conventional utopian inversion of the exchange economy of European merchants and an inversion of contemporary descriptions of native Americans as eager to trade for trifles.¹⁷ This double generic inversion acts as both an acknowledgement and critique of contemporary economic and representational practice. The critique emerges not from simple inversion of binary opposites, but the discovery of a neutral space which is only defined by double negatives. It is not-Europe and not-the-New-World. Thus, this space does not participate in the imperial construction of 'otherness' as foreign, dangerous and feminised. The destabilising of settled and Western identity continues in the subsequent inversions. The Bensalemites are also Christians, thus inverting and appropriating Christian history from both Europe and the New World, and also disturbing conventional accounts of Christian teleology and identity. Europeans are placed in The Strangers' House and defined as 'other', creating two mutually exclusive conceptual hierarchies: the conventional one of Europeans versus new world inhabitants and the utopian textual one of Bensalemites versus Europeans. The gift of oranges that heal represents the islanders' superior medical knowledge and practice ('beyond both the old world and the new' [461]), and destabilises European conceptions of knowledge.

These inversions reconfigure emergent early modern Western assumptions and discourses about territory, economics, identity, Christian history, the natural world, and practical science. Bacon places travelogue and utopian discourses into a dialogic relationship. The 'real' interrogates the utopian and vice versa, so as to construct a sceptical reading position which disturbs conventional binary accounts of the world, and sceptically re-visions 'others'. By reversing and displacing contemporary imperial discourse and its concomitant epistemology (Europe/civilisation versus new world/primitivism), Bacon exposes its contingent historicity as well as its inadequacy. Western customs, habits of thought

and perceptions are de-naturalised. It is only after this that we hear about Bensalem directly from its inhabitants, as we shall see in a moment. Having repositioned his readers, Bacon ensures a continued displacement of both Western and Bensalemite discourses throughout the second and third parts of the fable. This is a key intellectual strategy, and has major implications for thinking about gender.

III

The second part of the fable names the island, its mission and its history, and uses images and metaphors with connotations of gender and sexual difference. These narrations continue the utopian and generic reversals of the first part of the fable, re-emphasising European practices as inverted reference points. Gendered and sexual metaphors are explicit in the name of the island, the articulation of an epistemology and the description of the Governor.

The name of the island is a double departure from convention. It is named by the inhabitants rather than the Europeans, and the name is not feminine: Bensalem signifies 'the perfect son'. By masculinising what is usually female (the land), Bacon continues to displace the Euro-centric construction of the relationship of man to land, and additionally asserts the island's impenetrable status. Furthermore, the masculine island bears a typological relationship to Christ, the other perfect son. Through the direct revelation of Christianity, Bacon posits an unmediated and unbroken genealogical connection between God, fathers and sons. The image of the birthing God and father, source of all knowledge and production, is an enduring myth in Western philosophy and culture. It is also one which defines masculinity by excluding the significance of female procreativity and power.¹⁸ However, this initial gendering of the island and its productive capacities as solely masculine is qualified and challenged in the third part of the fable, to which I shall turn later.

Bacon explicitly confirms the articulation of a non-Western, but nonetheless hierarchical epistemology: the subject knower is Bensalem, the object of knowledge is the rest of the world: 'we know well ... the ... world, and are ourselves unknown' (463). The College of the Six Days' Works, which symbolises the island's

epistemological practice and theory, describes its purpose as: 'the finding out of the true nature of all things' (230). The objects of knowledge are open to Bensalem, but they are not explicitly feminised. Rather, the place that is usually feminised (the new world), is re-gendered as masculine, and becomes subject rather than object; while the object(s) of knowledge, which include Europe and its customs, as well as nature, are not explicitly gendered. Bacon's positioning of a sceptical reader asks us to reject conventional binary oppositions, including that of a feminised, subjugated nature.

The relationship between Governor and visitors is self-consciously didactic (described by the narrator as 'parent-like' (463)). Familial relationships are thence symbolically central to the *New Atlantis*, first introduced through the visitors' perceptions of their welcome. This confirms a system of relationships in which the newcomers are supplicants, positioned as children in need of nurturing and educating. The metaphor of visitors and readers as children continues subtextually throughout the fable, echoing Bacon's varying uses of the birth metaphor cited at the beginning of this essay. At this stage, the parental symbol is not specifically patriarchal.

In summary, then, the first part of the fable offers a revisioning of Euro-centrism via an inductive reading experience¹⁹ which sets up a neutral place from which we as sceptical readers revalue and critique Western ideologies and epistemologies. The fable's second part provides a history, a set of external relationships, and systems of belief for that island, which are inversions of European traditions. Where gendered allegories or metaphors are used, the text explicitly denies them a conventional meaning. Gender is used non-normatively at this stage; but it is masculinity (not femininity) which is re-figured in the second part of the fable. In the light of these non-normative significations, let us now turn to consider how gender and sexual difference are represented in the rest of the fable.

IV

In the last part of the fable the narrator describes three experiences at length: his attendance at 'the feast of the family'; a

conversation with Joabin about Judaism, Christianity, and chastity and marriage customs in Bensalem and Europe; and the lecture by the Father of Salomon's House on its work and philosophy. Two out of three of the directly narrated experiences focus both explicitly and allegorically on gender and sexuality. The description of the sexual division of labour at the feast and the apparent allegorical functions of the gendered symbols have exact cultural parallels in Jacobean political thought and praxis, most notably, the interlinked contemporary discourses of patriarchy and chastity. Many critics argue that the feast of the family is a patriarchal model and proof that Bacon legitimises the domination of nature via patriarchal allegory.²⁰ However, this argument ignores several key points, as we shall see.

Having been positioned as sceptics, we are reminded to read the feast in the context of both its position in the fable and intertextually. It is in the light of this revisioning that readers should re-examine the familial and social structures in Bensalem in the context of both the *New Atlantis*, and of contemporary accounts of familial patriarchy. The narrator's first directly experienced description is that of an event: the Feast of the Family. It functions as both a description of a utopian practice and as a resonating social symbol. By considering these separately, we can see that Bacon both advocates a Jacobean patriarchal model and supersedes it.

Let us first consider the feast as a literal embodiment of Bacon's utopian social organisation. The feast is an overt celebration of patriarchal productivity, provided by the state for the family of a man who has thirty children 'descended of his body' (473). The power and position of the father as head of household is paramount. He holds court for two days prior to the feast, where he:

sitteth in consultation concerning the good estate of the family. There, if there be any discords or suits between any of the family, they are compounded and appeased. There, if any of the family be distressed or decayed, order is taken for their relief and competent means to live. There, if any be subject to vice, or take ill courses, they are reproved and censured. So likewise direction is given touching marriages and the courses of life which any of them should take, with divers other the like orders and advices. The governor assisteth, to the end to put in execution by his public

authority the decrees and order of the Tirsan, if they should be disobeyed: though that seldom needeth, such reverence and obedience they give to the order of nature. The Tirsan doth also then ever choose one man from amongst his sons to live in house with him: who is called ever after the Son of the Vine. (473)

This patriarchal unit differs from contemporary Jacobean models in several ways. This extended family looks more like a feudal model than a bourgeois patriarchal unit.²¹ Moreover, in contrast to James I's version of patriarchalism, Bacon here inverts the relationship between family and national political authority. In *The True Law of Free Monarchies* James I wrote:

By the law of nature the king becomes a natural father to all his lieges at his coronation, And the father, of his fatherly duty, is bound to care for the nourishing, education and virtuous government of his children: even so is the king bound to care for all his subjects. (1603 ed., Fo.B3v)

James I's patriarchal theory entails absolute, if nurturing, monarchical authority, and concomitant obedience from subjects to monarch. By contrast, Bacon's father has central authority and is assisted by the Governor. Patriarchalism is naturalised ('reverence and obedience to the order of nature') and privatised; but the family dominates the state.²² Analogies between family and state emerged in the late sixteenth century, arguably as new protestant theories of fatherhood evolved, and political defences of absolutism were required. Contemporary patriarchal theory used the family as a metaphor to explain and justify absolute loyalty to monarch, to aid political centralisation as regional loyalties dispersed and to bolster social hierarchies in an era of social change.

Bacon's inversion of patriarchal absolutism is ignored by critics who argue that the feast is paradigmatic of his patriarchal and masculinist theory of knowledge.²³ The discourse surrounding the father in the *New Atlantis* echoes contemporary patriarchal theory, but Bacon alters the political balance between individual and state.

Other features of the description of the festival significantly raise questions about gender and sexual difference. There is both a gendered division of labour and a hierarchy of value placed on

sons over daughters. The Tirsan sits under a canopy, wrought by 'some of the daughters of the family', and he parades forth 'with all his generation or lineage, the males before him and the females following him' (473). The mother is physically unseen:

if there be a mother from whose body the whole lineage is descended, there is a traverse placed in a loft above on the right hand of the chair, with a privy door, and a carved window of glass, leaded with gold and blue; where she sitteth but is not seen. (473)

The children stand about the room 'in order of their years without difference of sex', while a herald delivers a scroll in which the Tirsan is granted revenue, honour and 'points of exemption ... for propagation of his subjects' (474), and then delivers an ornamental bunch of enamelled grapes, decorated differentially:

if the males of the family be the greater number, the grapes are enamelled purple with a little sun set on the top; if the females, then they are enamelled into a greenish-yellow, with a crescent on the top. (474)

The Tirsan's primary heir is male, but age, not gender, orders the children's place in the festival. Both daughters and sons are given a symbolic value in the state's gift to the family as moon and suns respectively. The food is served by the sons, while the daughters stand at the edge of the room, followed by a celebration of hymns praising,

Adam and Noah and Abraham; whereof the former two peopled the world and the last was the Father of the Faithful; concluding ever with a thanksgiving for the nativity of our Saviour, in whose birth the births of all are only blessed. (475)

Fatherhood, sons, faith and procreation are intertwined. Finally, the Tirsan blesses each of his children, usually in age order again, and delivers a special jewel to one or two of his sons if 'of eminent virtue' (475).

In this description, reproductive labour is explicitly acknowledged as central to the economic and political well-being of the state, and the source of that reproduction is figured publicly as masculine. The mother, though present, is hidden, and while daughters are given some public recognition and role, male success is measured by the production of sons.

However, the allegorical and symbolic resonances of the feast modify this interpretation. Bacon makes it clear that, like other early modern festivals, the feast functions symbolically as an icon of natural social stability and harmony. The narrator's description delineates it as both natural and symbolic: 'a most natural, pious and reverend custom it is, shewing that nation to be compounded of all goodness' (472). This self-proclaimed naturalism reminds us that the binary opposition between culture and nature has earlier been transgressed, and then proleptically suggests a new nature, paradigmatic of the ethos of Bensalem society.

The absence of the mother, the symbolic icons associated with the father, and the primacy given to sons, project a fantasy of masculine generative power. Fertility is central to this celebration through the icon of the family. Most critics argue that Bacon appropriates the parental role solely to the figure of the father, figuring fertile power as masculine and metonymically linking this to the 'Fathers' of Salomon's House and their knowledge about and power over the natural world.²⁴

Any reading of the symbolic function of the family, however, must analyse the representation of the mother. She is veiled from sight, sitting to the right of the father, but can see. This absent presence demands an allegorical reading. The figure of the veiled woman, particularly at a festive ritual which celebrates the production of children, is resonant of the contemporary ceremony of women's churching after childbirth.²⁵ Cressy argues that this ritual was a Church ceremony of thanksgiving for the survival and health of mother and child, marking the return of the mother to her community, and a collective celebration of maternity, and not a rite of purification. The celebratory interpretation and use of this ritual may be seen as part of a contemporary protestant revaluation of marriage and motherhood, in which maternal influence was seen as equal but different to that of the paternal.²⁶

Both the formal significance and actual events of this ceremony are echoed in Bacon's feast. The parallel draws attention to the fact that here the mother is never unveiled, remaining in a liminal position. She is not reincorporated into the community of the family. Instead, it is the father whose fertility and place in the community is publicly celebrated and marked. Here, then, is further iconic evidence of Bacon's appropriation of fertility and

its customs to masculine power. However, there are two further attributes given to the hidden mother which counterbalance, but do not erase, this interpretation. They thence offer us a third way of interpreting Bacon's familial images.

The mother is placed on the right of the father, which explicitly places the mother's relationship to the father typologically parallel to both the scriptural representation of the relationship between Christ and God, as well as between the Church and God: 'hereafter shall ye see the Son of man sitting on the right hand of power' (Matthew, 26: 64). Scriptural and theological accounts of the relationship between God and his people often figure it as one of marriage, in which the Church was allegorised as female bride to male God. This explicitly gendered and sexualised relationship symbolises bodily and spiritual unity and a reinforcement of patriarchal authority. Nevertheless, Bacon's appropriation of this image is less clear because at all points the image of the mother continues to signify an individual female in addition to any allegorical function. At one and the same time she is mother, Christ, and people: fertility, saviour, and faith. While at a literal level she is excluded from incorporation into the festival of the family, at an allegorical level her association with Christ and with Church renders her equal with God the Father. The tradition of representing a feminised Christ and of God as both mother and father is one which has been marginalised in the patriarchal Hebraic tradition.²⁷ Lancelot Andrewes, who helped translate the 1611 Authorised Version of the Bible, frequently used combined images of the maternal and paternal to describe God:

[God has ...] that faithfulness that is in a mother towards her children, for as a woman cannot but pity her own child and the son of her womb, so the Lord will not forget his own people.²⁸

Bacon's maternal figure is radically both masculine and feminine. The father is celebrated for fertility through a festival which echoes but extends contemporary churching rituals for women. Thus the superficial clarity of hierarchical gender roles, explicit in the literal events of the festival and the function of the father, is rendered indeterminate by a symbolic reading of the place and representation of the mother.

The second remarkable feature about the representation of the mother, which counterbalances the apparent patriarchalism

of the festival, is of her as seeing but unseen. This figuration of sight replicates the earlier description by the Governor of the Stranger's House of how Bensalem is hidden from the rest of the world, but knows and can see the world. This model for new knowledge, in which relationships between Europe and the new world, culture and nature are inverted and displaced, parallels a veiled, productive mother. Knowledge, and, moreover, the Baconian ideal empirical knowledge of observation, is therefore allegorically figured as being held by the hidden mother, as it is by the hidden island.

Theories of the patriarchal subordination of women's labour argue that ownership and acknowledgement of female authority in reproduction is displaced and erased by the economics of our Western gender-sex system, in which female sexuality and child-birth are regulated by a normalised heterosexual system of marriage. Women are only legitimated when passed between father and husband, thereby simultaneously establishing masculine 'ownership' to progeny and female subjection to this system.²⁹ Feminist theorists argue that such a sex-gender system is a patriarchal compensation for men's own alienation from reproduction, and that this alienation has underpinned man's urge to master nature.³⁰

Bacon displays figuratively the manner in which reproductive labour is alienated from men and in which women are subordinated. Yet by elucidating this for a reader, already positioned as sceptical, Bacon refuses to naturalise and erase the ideological construction of woman as invisibly and accidentally reproductive. In figuring forth the mother as veiled but present, and disturbing conventional binary relationships between nature and culture, Bacon's text *resists* conformity to a fantasy of male parturition. This device is comparable to the magical re-presentation of Hermione in *The Winter's Tale*, interpreted by critics as *both* a fantasy of masculine productivity and as a liberating restoration of an equity between male and female in reproduction.³¹ Additionally, by inverting conventions, and feasting masculine fertility, Bacon also critiques European humanist masculine alienation from reproduction.

The Baconian parallel between children and technology offers an additional symbolic frame for sexual reproduction in Bensalem. Bacon's name for useful scientific experiments elsewhere

in his writings as 'experiments of fruit' is literalised in naming the father's sons and daughters as 'vines', and illustrated by technological advances celebrated and used by the Bensalemites. The metaphor of legitimate (re)production links Joabin's discussion of chastity to the account of useful scientific experiments in Salomon's House. In *Valerius Terminus*, an early summary of his ideas, Bacon wrote:

Knowledge that tendeth but to satisfaction is but as a courtesan, which is for pleasure and not for fruit or generation.³²

Knowledge as female is a conventional renaissance symbol.³³ By contrast, in Bensalem, the symbol of productive sexuality belongs to both sexes: woman is not demonised or divided (although she is isolated). Thus Bacon's fruitful fable acquires the best of both worlds: social structures which acknowledge and celebrate male fertility, whilst symbolically and allegorically nodding at female influences. Let us now turn to the other account of gender and sexual difference in the fable: the narrator's conversation with Joabin.

V

This dialogue acts as both a direct and an indirect interpretation of the festival: directly, in response to the narrator's request for elucidation, and indirectly, because Joabin's comments on European marriage and familial customs are a counterpoint to the utopian inversions of the feast. The narrator asks for Joabin's views:

I had never heard of a solemnity wherein nature did so much preside. And because propagation of families proceedeth from the nuptial copulation, I desired to know of him what laws and customs they had concerning marriage; and whether they kept marriage well; and whether they were tied to one wife? (476)

Joabin's answer reads:

You shall understand that there is not under the heavens so chaste a nation as this of Bensalem; nor so free from all pollution or foulness. It is the virgin of the world ... the Spirit of Chastity ... For there is nothing amongst mortal men more fair and admirable than the chaste minds of this people. Know therefore, that with them there are no stews, no dissolute houses, no courtesans, nor anything

of that kind. Nay they wonder (in detestation) at you in Europe which permit such things. They say ye have put marriage out of office: for marriage is ordained a remedy for unlawful concupiscence; and natural concupiscence seemeth as a spur to marriage. But when men have at hand a remedy more agreeable to their corrupt will, marriage is almost expelled. And therefore there are with you seen infinite men that marry not, but chuse rather a libertine and impure single life, than to be yoked in marriage; and many that do marry, marry late, when the prime and strength of their years is past. And when they do marry, what is marriage to them, but a very bargain; wherein is sought alliance, or portion, or reputation, with some desire (almost indifferent) of issues; and not the faithful nuptial union of man and wife that was first instituted. (476–7)

Read allegorically, sterility lies with European traditions (figured as the courtesan) and fecundity with those of Bacon's New World (figured as Bensalem, the virgin of the world), an image replicating that of *Valerius Terminus*. Read literally, Bacon articulates a radical critique of sexual double standards. I shall return to this point in a moment.

However, in the context of generic reversals, the reader is encouraged to venture further interpretations. Bacon reintroduces the gendering of land: Bensalem, having been figured as the perfect son, is now 'the virgin of the world'. He invokes Elizabethan discourses about Virginia. Yet Bensalem's chastity is not constructed as Raleigh's Guiana or Harriot's Virginia was: it does not represent an invitation to plunder, invade and possess. In contrast, it is an image of chastity as both inviolable and reproductive: an image resonant, rather, of those linked to Elizabeth I, whose link to chastity paradoxically invoked dominion over others rather than subjection to them.³⁴ Bacon's image also echoes Spenser's Britomart in book III of *The Faerie Queene*, where chastity symbolises marital union and reproduction in a protestant revision of marriage. At this late stage in the fable Bacon uses the conventional image of 'virgin land', but we have learned the island has its own history and culture: as a result definitions and concepts of virgin land are radically inverted and reformed. His island claims the image of chastity as one with real meaning: the land is not a blank canvas, inviting invasion, nor is it open to it, but will invite selected strangers to visit. This re-appropriation of the discourse of virgin land combines images of masculinity

and femininity: Ben-salem, the perfect son, is also the virgin of the world. Here, then, gender is recognised by the text as central to the discourse of imperial knowledge. But it is then manipulated to aid the displacement from present ways of thinking, as well as to suggest that domination of land and nature does *not* produce legitimate knowledge.

Bacon's utilisation of chastity as a positive symbol is the grounds for his lengthy critique of contemporary sexual customs, the only explicit comment the fable makes on European mores. This is further evidence that Bacon places gender and sexual difference as central organising metaphors in his utopian discourse. Joabin's commentary on European habits reads like a protestant sermon on marriage,³⁵ whose ideals are only realised in Bensalem. In Joabin's description, European practice is represented as the opposite to Bensalem's ideal, in its economic and political manipulation of marriage, its use of courtesans, 'delight in meretricious embracements', adultery, 'deflowering of virgins', and 'masculine love' (477). The objects of Bacon's critique uncannily echo those voiced by feminists, in particular the double sexual standard and the organisation of sexual behaviour solely by the yardstick of masculine libertinism.

In an Arcadia human desires are moderate and simplified, but satisfied and, in addition, humanity and nature are integrated,³⁶ a vision present in *Valerius Terminus*, where the new epistemological world is described as being:

a restitution and reinvesting ... of man to the sovereignty and power (for whensoever he shall be able to call the creatures by their true names he shall again command them) which he had in his first state of creation.³⁷

Many features of Bensalem, including the Adam and Eve pools, echo this prelapsarian motif. In *The Refutation of Philosophies* ('a chaste and lawful marriage') Bacon also uses protestant marriage theory as a metaphor for the integration of man and nature. What he advocates, then, is not domination, but a sustainable, integrated ecology. He uses the protestant re-articulation of masculinity as chaste husbandry in an equitable marriage as his ideal model of self-restraint, social order and a concomitant social structure which enables true knowledge and the practice of true science.³⁸

Chastity, then, in the *New Atlantis* becomes a metonymic signifier for both the necessary self-restraint, which will maintain social and political order, and for the union between scientist and nature. Chastity is not desexed: rather, it applies necessarily and equally to both sexes. Bacon's continued emphasis on the 'natural' customs of Bensalem, in contrast to the 'unnatural' ones of Europe, elides the articulation of Bensalem's advanced technological culture with a proclaimed rediscovery of nature and the natural. Contemporary discourses of sexuality and chastity, and their transformation in Bensalem, are the pivot for this paradoxical epistemological realignment of nature *with* technology. It is now possible to reconsider whether this realignment really does replicate the models of a patriarchal objectivist masculine epistemology.

Before the reader is finally introduced to the inventions and knowledge of Salomon's House, there is another fusion of gender difference: the narrator figures himself and his repositioning through a parallel with a woman:

I would say to him [Joabin], as the widow of Sarepta said to Elias, that he was come to bring to memory our sins and that I confess the righteousness of Bensalem was greater than the righteousness of Europe. (478)

This reference is to the story in 1 Kings 17:8–24 where a poor widow takes in and feeds Elijah. When her son takes ill and dies, she repents of her sins, and in acknowledgement of her penitence, Elijah brings the son back to life. The narrator thus acknowledges his own submissive and erroneous position, figuring himself as a widow whose progeny have yet the potential to be resurrected.

It is only now, at the point of this personal, gender transformation and acknowledged radical openness to the future, that the narrator is admitted to the knowledge of Salomon's House. We and the narrator are figured as children to the text and to knowledge itself, which is both mother and father. Bacon writes of the necessity of re-figuring our relationship to nature thus in *Valerius Terminus*:

It is no less true in this human kingdom of knowledge than in God's kingdom of heaven, that no man shall enter into it except he become first as a little child.³⁹

The Father of Solomon's House opens his revelation parentally:

God bless thee, my son, I will give thee the greatest jewel I have. For I will impart unto thee, for the love of God and men, a relation of the true state of Salomon's House. (480)

The narrator and reader, through a series of initiations and slowly changing perceptions and understandings, may now encounter a survey of technological innovations and experiments for the revelation of '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' (480). Included in these descriptions are accounts of mines, experiments on refrigeration, water purification, artificial weather systems, medicines, foods, and selective plant breeding. Animal experiments are described thus:

Of beasts and birds ... for dissections and trials; that thereby we may take light what may be wrought upon the body of man, ... we try all poisons and other medicines upon them, as well of chirurgery as physic. By art likewise we make them taller than their kind is; and contrariwise dwarf them and stay their growth; we make them more fruitful and bearing than their kind is, and contrariwise barren and not generative. (482)

Bacon articulates the new experimental philosophy in which human knowledge, wealth and health dominate over earth and animals. But the ethics of such dominion have been clearly delineated by the earlier part of the fable where a chaste and equitable union is proposed. Although Bacon advocates animal experimentation, which today we might question, there is no evidence of the language of rape and the kind of domination claimed by Merchant.⁴⁰

Nevertheless, there is much here that is still patriarchal. The paternal relationship of the narrator to the Father of Salomon's House, narrator to listener, knower to unknowing, is clear. Transmission of knowledge is figured through masculine primogeniture, symbolically represented in the Feast of the Family. But this model of transmission does not fully encompass the insertion of gender and sexual difference into models of knowledge in the *New Atlantis*. The fable ends doubly open-ended: the Father of Salomon's House grants permission for the narrator to disseminate the new knowledge and the work itself was published as

'not perfected'. Bacon's island offers itself as a closed and patriarchal society, the archetypal image of the classical masculine body which Bakhtin characterises as symbolic of the new politics and science of the seventeenth century.⁴¹ Yet, like Bensalem itself, the body of the text does lie open to those who are willing to pass through its tests of purity and understand its transformations. The veiled woman (and island) is both the object of knowledge and knowledge itself. Bacon continues the ancient tradition of feminising knowledge, but simultaneously figures it as masculine.

Bacon uses gender and sexual difference as a way of signalling several important epistemological points. In particular, the *New Atlantis* shows: the necessity of articulating an ethics of *legitimate* knowledge; the acknowledgement of a respectful and mutual relationship between nature and humans; the placing of productivity and utility within an ethical configuration; and the bisexuality of scientific knowledge and practice.

If we return to the questions asked at the beginning of this essay, it is possible to see how Bacon has used gender and sexual difference to redefine knowledge. Bacon's gendered images both display and exceed the normative at key symbolic points, and act both to unsettle the reader's prejudices and to model a new epistemology. Such images clearly contest contemporary imperial and epistemological assumptions, particularly in the signifiers of knowledge and chastity.

Furthermore, sexual difference is reconfigured in Bacon's utopian vision. Birth and rebirth are a major metaphorical subtext. The island is refigured as a two-sexed child: the perfect son and the chaste daughter, who will pass on the legitimate line and way of knowledge, in contradistinction to that practised in Europe. Both the way of knowing and its products are figured as bisexual: denying a binary gendered epistemology, and advocating transgression to achieve new knowledge and new ways of knowing.⁴² The open-ended text offers itself to all reborn readers, male or female. This image of our relationship to nature suggests that Bacon's new scientist may, in his or her role reversals, and equal respect for both the natural world and technology, remind us more of Haraway's cyborg,⁴³ than the masculinist ideologue described by many ecofeminists. This reading of the *New*

Atlantis offers a way of enabling us to re-articulate the legacy of Baconian science for the twenty-first century.

Notes

- 1 Francis Bacon, *The Refutation of Philosophies*, in B. Farrington (ed.) *The Philosophy of Francis Bacon* (Chicago, Chicago University Press, 1966), p. 131.
- 2 Francis Bacon, *The Masculine Birth of Time*, in Farrington (ed.), *The Philosophy*, p. 62.
- 3 *Ibid.* p. 70.
- 4 Francis Bacon, *Novum Organum*, aphorisms I and III, in *The Works of Francis Bacon*, ed. James Spedding, Robert Leslie Ellis and Douglas Denon Heath, 14 volumes (London, Longman, 1857–74), vol. IV, p. 47.
- 5 For example, Mark Breitenberg, *Anxious Masculinity in Early Modern England* (Cambridge, Cambridge University Press, 1996), pp. 69–96; Carolyn Merchant, *The Death of Nature: Women, Ecology and the Scientific Revolution* (San Francisco, Harper and Row, 1980), pp. 164–90; Maria Mies and Vandana Shiva, *Ecofeminism* (London and New York, Zed Books, 1993), pp. 13–20; Valerie Plumwood, *Feminisms and the Mastery of Nature* (London, Routledge, 1993); Londa Schiebinger, *The Mind has No Sex?: Women in the Origins of Modern Science* (Cambridge, Mass., Harvard University Press, 1989), pp. 119–59. In solitary contrast, Iddo Landau, 'Feminist criticisms of metaphors in Bacon's philosophy of science', *Philosophy*, 73 (1998), 47–61, demonstrates how critics cite Bacon selectively, and argues that his philosophy is not a hierarchical sexist epistemology.
- 6 See Susan Bordo, 'The Cartesian masculinization of science', *Signs*, 11 (1986), 439–56; Brian Easlea, *Science and Sexual Oppression: Patriarchy's Confrontation with Women and Nature* (London, Weidenfeld and Nicholson, 1981); Evelyn Fox Keller, *Feminism and Science* (Oxford, Oxford University Press, 1996), pp. 1–40; Genevieve Lloyd, *The Man of Reason: 'Male' and 'Female' in Western Philosophy* (London, Routledge, 1994), pp. 1–15; and Merchant, *The Death*, Chapter 5.
- 7 Merchant, *The Death*, p. xx; Mies and Shiva, *Ecofeminism*, p. 18.
- 8 See J. C. Davis, *Utopia and the Ideal Society* (Cambridge, Cambridge University Press, 1979), pp. 1–10, 36–40, 106–37.
- 9 Frederic Jameson, 'Of islands and trenches: naturalisation and the production of utopian discourse', *Diacritics*, 7 (1977), 2–21. See also Denise Albanese, 'The *New Atlantis* and the uses of utopia', *English Literary History*, 57 (1990), 503–28.
- 10 See Charles Whitney, *Francis Bacon and Modernity* (New Haven, Yale University Press, 1986); Jerry Weinberger, 'Science and rule in Bacon's utopia: an introduction to the reading of *New Atlantis*', *American Political Science Review*, 70 (1976), 865–85, and *Science, Faith and Politics: Bacon and the Utopian Roots of the Modern Age* (Ithaca, Cornell University Press, 1985).

- 11 See, Joan Wallach Scott, *Gender and the Politics of History* (New York, Columbia University Press, 1988), pp. 42–5; S. Amussen, *An Ordered Society: Gender and Class in Early Modern England* (Oxford, Basil Blackwell, 1988); P. Stallybrass, 'Patriarchal territories: the body enclosed', in M. Ferguson, M. Quilligan and Nancy J. Vickers (eds), *Re-Writing the Renaissance* (Chicago, Chicago University Press, 1986), pp. 127–42; and David Underdown, *Revel, Riot and Rebellion: Popular Politics and Culture in England 1603–1660* (Oxford, Oxford University Press, 1985).
- 12 See notes 5 and 6.
- 13 This is an elaboration of Davis, *Utopia*, p. 107.
- 14 Francis Bacon, in Brian Vickers (ed.), *Francis Bacon: A Critical Edition of the Major Works* (Oxford, Oxford University Press, 1996), pp. 457–89 (pp. 457, 463). All subsequent references to *New Atlantis* come from this edition and are given in parenthesis in the text.
- 15 Newly discovered land was graced with a feminised European name: America, Virginia, Guiana. The ideology behind such naming is clear in Raleigh's plea to Queen Elizabeth to fund his exploration of Guiana: 'Guiana is a country that hath yet her maidenhead: never sacked, turned, nor wrought; the face of the earth hath not been torn, nor the virtue and salt of the soil spent by manurance; the graves have not been opened for gold; the mines not broken with sledges; nor the images pulled down out of their temples' (*The Discovery of ... Guiana*, London, 1595, fo.99). New World land usually signified an invitation to possession: gender is used both to convey and justify this signification, and to justify a gendered, racial and epistemological hierarchy. See Richard Burt and J. Archer (eds), *Enclosure Acts: Sexuality, Property and Culture in Early Modern England* (Ithaca, Cornell University Press, 1993); Annette Kolodny, *The Lay of the Land: Metaphor as Experience and History in American Life and Letters* (Chapel Hill, University of North Carolina Press, 1975); Peter Mason, *Deconstructing America: Representations of the Other* (London, Routledge, 1990), Chapter 1; and Adrian Louis Montrose, 'The work of gender in the discourse of discovery', *Representations*, 33 (1991), 1–41.
- 16 These were the two available discursive conventions, see J. H. Elliot, *The Old World and the New* (Cambridge, Cambridge University Press, 1970); S. Greenblatt, *Marvellous Possessions: The Wonder of the New World* (Oxford, Oxford University Press, 1991); P. Hulme, 'Hurricanes in the Caribbees: the constitution of the discourse of English colonialism', in Francis Barker et al. (eds), *1642: Literature and Power in the Seventeenth Century, Proceedings of the Essex Conference on the Sociology of Literature July 1980* (Colchester, Hewitt Photo-Lith, 1981); W. E. Washburn, 'The meaning of "discovery" in the fifteenth and sixteenth centuries', *American Historical Review*, 68 (1962), 1–21.
- 17 For example, Thomas Harriot's *A Brief and True Report of the New Found Land of Virginia* (London, 1588); Robert Gray's *A Good Speed to Virginia* (London, 1608); Walter Raleigh's *The Discovery of the Large, Beautiful and Rich Empire of Guiana* (London, 1596).

- 18 See Breitenburg, *Anxious Masculinity*, pp. 76–96 and Merchant, *The Death*, Chapter 5. Feminist critiques of male parturition fantasies include, Renate Blumenfeld-Kosinski, *Not of Woman Born: Representations of Caesarean Birth in Medieval and Renaissance Culture* (Ithaca, Cornell University Press, 1990); Terry Castle, 'La'bring bards: birth topoi and English poetics', *Journal of English and Germanic Philology*, 78 (1979), 193–208; Susan Friedman, 'Creativity and the childbirth metaphor: gender difference in literary discourse', *Feminist Studies*, 13 (1987), 49–82; Adrienne Rich, *Of Woman Born: Motherhood as Experience and Institution* (London, Virago, 1977), pp. 56–83.
- 19 See Stanley Fish, "'Georgics of the mind': the experience of reading Bacon's *Essays*", in *Self-Consuming Artefacts: The Experience of Seventeenth-Century Literature* (Berkeley: University of California Press, 1972), pp. 28–155; Charles Whitney, *Francis Bacon and Modernity* (New Haven, Yale University Press, 1986); see also Kate Aughterson, "'The waking vision': reference in the *New Atlantis*", *Renaissance Quarterly*, 45 (1992), 119–39.
- 20 For example, H. B. White, *Peace Among the Willows: The Political Philosophy of Francis Bacon* (The Hague, Elsevier, 1968), pp. 166–89; Merchant, *The Death*, pp. 180–6.
- 21 Davis, *Utopia*, p. 113.
- 22 See Gordon Schochet, *Patriarchalism in Political Thought* (Oxford, Basil Blackwell, 1976), Chapter 1.
- 23 Merchant, *The Death*, pp. 180–4.
- 24 See *ibid.*, Chapters 1 and 2; White, *Peace*, pp. 166–89.
- 25 See Patricia Crawford, 'The construction and experience of maternity in seventeenth-century England', in Valerie Fildes (ed.), *Women as Mothers in Pre-industrial England* (London, Routledge, 1990), pp. 3–38 and David Cressy, *Birth, Marriage and Death: Ritual, religion and the Life-Cycle in Tudor and Stuart England* (Oxford, Oxford University Press, 1997), pp. 197–230.
- 26 See Kathleen Davies, 'Continuity and change in literary advice on marriage', in R. Outhwaite (ed.), *Marriage and Society: Studies in the Social History of Marriage* (New York, St. Martin's Press, 1981), pp. 58–80; Margaret Ezell, *The Patriarch's Wife: Literary Evidence and the History of the Family* (Chapel Hill, University of Carolina Press, 1987); C. H. and K. George, *The Protestant Mind of the English Reformation* (Princeton, N. J., Princeton University Press, 1961), pp. 260–84; Linda Fitz, 'What says the married woman? Marriage theory and feminism in the English renaissance', *Mosaic*, 13 (1980), 1–22; Lawrence Stone, *The Family, Sex and Marriage 1500–1800* (London, Weidenfeld and Nicholson, 1977), pp. 217–41.
- 27 See David Leverenz, *The Language of Puritan Feeling: An Exploration in Literature, Psychology and Social History* (New Brunswick, N. J., Rutgers University Press, 1980) and Deborah Shuger, 'Nursing Fathers: Patriarchy as a Cultural Ideal', in Deborah Shugar (ed.), *Habits of Thought in the English Renaissance* (Berkeley, University of California Press, 1990), pp. 218–49.
- 28 *The Works of Lancelot Andrewes*, ed. J. P. Wilson and James Bliss, 11 vols, Library of Anglo-Catholic Theology (Oxford, Oxford University Press,

- 1854), vol. 4, p. 272.
- 29 Mary O'Brien, *The Politics of Reproduction* (London, Routledge, Paul Kegan, 1981); Gayle Rubin, 'The traffic in women, notes on the "political economy" of sex', in Rayner Reiter (ed.), *Toward an Anthropology of Women* (New York and London, Monthly Review Press, 1975), pp. 157–210.
 - 30 O'Brien, *The Politics*, Chapter 1; Michelle Stanworth, 'Reproductive technologies and the deconstruction of motherhood', in M. Stanworth (ed.), *Reproductive Technologies: Gender, Motherhood and medicine* (Cambridge, Polity Press, 1987), pp. 10–35.
 - 31 For the former reading, see Richard Wilson, 'Observations on English bodies: licensing maternity in Shakespeare's late plays', in Archer and Burt (eds), *Enclosure Acts*, pp. 121–50. For the latter reading, see Janet Adelman, *Suffocating Mothers: Fantasies of Maternal Origin in Shakespeare's Plays, Hamlet to The Tempest* (London, Routledge, 1992), pp. 220–38.
 - 32 Bacon, *Works*, vol. III, p. 222.
 - 33 Phillipa Berry, *Of Chastity and Power: Elizabethan Literature and the Unmarried Queen* (London, Routledge, 1989), pp. 9–37 and Schiebinger, *The Mind*, pp. 119–59.
 - 34 See Berry, *Of Chastity*, pp. 1–8 ; Frances Yates, *Astraea: The Imperial Theme in the Sixteenth Century* (London, Routledge and Kegan Paul, 1975).
 - 35 For example, the *Homily on Matrimony* or *Of Whoredom and Adultery*; or William Whately's *A Bride Bush* (London, 1617).
 - 36 Davis, *Utopia*, p. 24.
 - 37 Bacon, *Works*, vol. III, p. 222.
 - 38 See Mary Fissell, 'Gender and reproduction: representing reproduction in early modern England', *Gender and History*, 7 (1995), 433–57; George, *The Protestant Mind*; Lorna Hutson, *The Usurer's Daughter: Male Friendship and Fictions of Women in Sixteenth-Century England* (London, Routledge, 1994), Chapter 1; Leverenz, *The Language of Puritan Feeling*, Chapter 1.
 - 39 Bacon, *Works*, vol. III, p. 224.
 - 40 See Merchant, *The Death*, pp. 164–90.
 - 41 Peter Stallybrass, 'Patriarchal territories', in M. Ferguson, M. Quilligan and Nancy J. Vickers (eds), *Rewriting*, pp. 123–42.
 - 42 Evelyn Fox Keller notes that the science proposed by Bacon is more like 'an hermaphroditical birth' in 'Baconian science: an hermaphroditical birth', *Philosophical Forum* 11 (1980), 299–308, and gives a more sophisticated reading of Bacon's metaphors than Merchant.
 - 43 Donna Haraway, 'A cyborg manifesto: science, technology and socialist-feminism in the 1980s', *Socialist Review* (1980), 65–108.