

『영미연구』

제55집 (2022): 129-156

<http://doi.org/10.25093/ibas.2022.55.129>

Surveying “Paradise’s only map”: Andrew Marvell and Early Modern Science

Hyunyoung Cho

George Mason University Korea

[Abstract]

Andrew Marvell has rarely been studied in relation to early modern science, even though his poetry reveals his interest in the scientific and technological developments of his time. In this study, I make a claim that Marvell’s poetic innovation of the country house poetry results from his active engagement with the new insights of early modern science, articulated most famously by Francis Bacon. In his poetic innovation, Marvell draws upon the new empirical and analytic methodology of early modern science. My focus is the poet’s impersonation of an estate surveyor. By taking up the role of an analytic and yet poetic surveyor, the poet maps out the discursive field of multiple visions competing at the historical juncture, which used to be hidden behind the monolithic vision of a utopian community in earlier precedents of the genre. In this poetic map, the surveyor-poet manages to capture not only the ascending logic of land improvement, represented by his lord, Sir Thomas Fairfax, but also the alternative views, namely, Diggers’ proto-communist ideas and fenmen’s

protest against agrarian modernization. The poetic map delineates the contours of the discursive conflict surrounding the land in mid-seventeenth century England, the locus of the birth of capitalism.

Key Words: Early Modern Science, Country House Poem, Agricultural Revolution, Diggers, Fen Riots

Introduction

In the middle of Andrew Marvell's *Upon Appleton House* (1651), a country house poem about the Yorkshire estate of Sir Thomas Fairfax, the poem's speaker refers to the new ways of seeing the world enabled by early modern science and technology. When describing the cattle of the villagers in the estate of this retired leader of the Parliamentarian army, the speaker compares them both to "fleas" and to "constellations" seen through "multiplying glasses" (461-64).¹⁾ Fleas and constellations were the representative objects of the recently invented optical instruments, respectively, the microscope and the telescope. Since "Galileo turned his telescope to the heavens" in 1609 and discovered mountains on the moon, the telescope revolutionized astronomy, vastly expanding human understanding of the universe (Wootton 214-28). Likewise, long before Robert Hooke's *Micrographia* (1665) featured the famous image of a giant flea, many people expressed their wonder at the brave new world opened for human perception by the microscope, recording how big "fleas" looked in the microscope (Margoliouth 287; Keil 275). In these lines, the poet deliberately plays with multiple perspectives facilitated by the recent inventions of scientific inquiry: the same cattle may look drastically different,

depending on how one looks at them.

This is just one of many instances that testify to Marvell's interest in early modern science and its developments. This aspect of Marvell's poetry, however, has not received much scholarly attention. Indeed, Marvell's poetry has been rarely studied in relation to the emerging scientific culture of the time, as recently noted by Martin Dzelzainis (180). While Dzelzainis's own study has illuminated Marvell's interest in the science of his own time, it mainly focuses on the post-Restoration period, long after many of Marvell's poetic masterpieces were written, leaving most of his major poetry, written in the 1640s and 50s, unexamined in such light. Given the plethora of the scholarly attention to John Milton, a contemporary and senior colleague of Marvell, on his relationship with early modern science,²⁾ this lacuna is perplexing.

Such neglect, one may suspect, partially derives from the desire to separate Marvell from Whig historiography that "identified Marvell as a protoliberal and patriot" (Prawdzik 4). A recent study that exemplifies such a stance is "Greenwashing Marvell" by Brendan Prawdzik. Criticizing ecocriticism's recruitment of Marvell as "an agent of ecological progress" (3), Prawdzik rejects the association of Marvell with the progressive view of history, arguing that "Marvell does not herald progress but rather bears witness to a universal decline." Marvell is certainly well known for his ambivalence and secrecy and as in the matters of politics, it is not easy to pin down which sides he stands on at the juncture of the fundamental cultural shift of the seventeenth century, howsoever one characterizes the shift. In the final analysis, however, I argue that Marvell is on the side of the modern, and that the Baconian spirit infuses his poetic practice, especially in his poetry of the 1640s and early 1650s.

In this article, I offer a reading of *UAH*, situating it in the context of the so-called

age of Bacon. I submit that Marvell's poetic innovation of the genre of the country house poem results from his active engagement with the new insights provided by the culture of early modern science. This new culture, whose key ideas were most famously articulated by Francis Bacon, was gaining ascendancy in Marvell's time, as testified by the astounding popularity of Thomas Browne's *Religio Medici* (1643) and *Pseudodoxia Epidemica* (1646). Marvell's poetry demonstrates his keen sensitivity to the novel discoveries made by early modern science. More importantly, his engagement does not stop at casual and ad-hoc references to new scientific tools. I make a claim that Marvell draws upon the new empirical outlook and analytic methodology in his innovation of the genre of country house poetry in *UAH*. The focus of my discussion is the poet's impersonation of an estate surveyor and his adoption of surveyor's empirical and analytical methodology in his poetic practice. By taking up the role of analytic and yet poetic surveyor, the poet manages to map out the discursive field of multiple visions competing at the historical juncture of mid-seventeenth century England, instead of presenting the monolithic vision of a utopian community as in earlier precedents of the genre.

1. Baconian Science and Early Modern Estate Survey

In the tradition of the country house poetry, the beginning of Marvell's poem sounds familiar. Echoing earlier country house poems like Ben Jonson's "To Penshurst" and Thomas Carew's "To Saxham," the poet directs readers to the "Within" (1) of this modest house, seemingly setting up the familiar dichotomy of the essential "within" of the house versus the peripheral "without" of it. This nod to the poem's generic

convention and other echoes of generic precedents, however, mainly work to highlight the critical distance between the world of Sir Thomas's estate and that of Penshurst and Saxham. Inside this house's "sober frame" (1), visitors will not find "native sweets" and other expressions of traditional hospitality, unlike in Penshurst and Saxham. Instead of the "wide open" gates that welcome villagers, this house's "narrow" door and bare interior ask its residents and guests to denounce worldly comforts and practice asceticism. Most importantly, this bare house no longer functions as the core of the centripetal social order to which all the members of the organic community look and move towards. Indeed, Sir Thomas's Protestant household rejects, in principle, such cornucopian festivity as part of the old, outdated tradition.³⁾

Therefore, while in Carew's "To Saxham," for example, the speaker is content to stay away from the "frost" and "snow" of the outside and savor the utopian sufficiency afforded inside the house,⁴⁾ the poetic persona of *UAH* departs from such practice and intentionally moves out to explore the outside world. Walking out of the house, the poet intends to "survey" (81) the estate, paying attention to its individual divisions and subdivisions. This term "survey," I argue, marks the poet's deliberate decision to impersonate an estate surveyor, a decision to walk outside the house, ambulate around "fragrant gardens, shady woods, / Deep meadows, and transparent floods" (79-80), and observe in each its own separate world and residents, its own songs and voices, and its own ideas and culture. And this impersonation of the estate surveyor, I submit, constitutes a key innovation of this poem, a revision of the country house poetry with the new insights and methodology of early modern science and its practitioners.

But is it justified to see the poet's use of this word "survey" as an intentional choice to mark his impersonation of the estate surveyor? It is true that the verb

“survey” can be used not just in the context of the land survey, but also as a general term. The Oxford English Dictionary records this word’s general usages, such as to “examine, inspect, scrutinize” and to “contemplate,” in addition to its primary definition in the context of land and estate measurement and examination. I argue, however, this poem’s spatial setting of a country estate, along with its careful attention to agricultural practices, as will be discussed later, invites readers to see the poet’s word choice as an intentional and deliberate decision.

The poet’s taking the role of the estate surveyor is a highly charged decision at this historical juncture. The surveyor emerged as a profession in the early modern period in tandem with the period’s growing interest in and demand for practical and scientific knowledge (Hill, *Intellectual Origins* 14-52). Like navigation, astronomy, and military art, the land survey is grounded on and facilitated by the rapid development and coalescence of mathematical principles as modern science (Lindgren 477-508; Turner 412). As Andrew McRae has explained, while the word “surveyor” was already used in the Middle Age to refer to government officials, only in the sixteenth century did the land surveyor begin to be seen “as an independent specialist, who brought to an estate a newly legalistic appreciation of tenurial relations and newly rationalistic standards of land measurement and estate planning” (McRae 170). Surveyors actively promoted their professional practice, using the analytical language of early modern science, as seen in one of the advertising broadsides posted on the streets of London. In this broadside, a surveyor named Radulph Agas captures the ideals of the profession succinctly.

No man may arrogate himself the name and title of a perfect and absolute
Surveior . . . unless he be able in true forme, measure, quantitie, and
proportion, to plat the same in their particulars, ad infinitum, and thereupon to
retrieve, and beat out all decayed, concealed, and hidden parcels thereof. (Agas,

Cited in McRae 177)

According to the OED, to "plat" means "to make a plan or map of" and "to divide up or determine the boundaries of" an area of land. Agas, a surveyor who claims to have had over forty years' practice, separates his surveying practice from that of accepted custom and tradition, and promotes the application of new scientific techniques in "knowing" the estate objectively and discovering the resources of the estate that were not recognized by the customary approach. In other words, he proposes to achieve accurate knowledge of the estate using quantitative measures and analytic skills rather than passing on the already-known tradition.

This self-representation of surveying practice is strikingly analogous to what Marvell accomplishes in this poem. The poet elects to look at this estate and its master's family in a way dramatically different from that of the senior practitioners of the genre, by venturing out of the enclosed space of the house, by analyzing the estate "in true forme, measure, quantitie, and proposition," by "[plattin]g the same in their particulars," and hence by recovering its "hidden parcels" that used to be systematically excluded in the earlier poetic representation of the country estates. Like the surveyor in John Norden's *The Surveiors Dialogue* (1607) who is not satisfied with the clerical examination of the deeds of the estate and emphasizes the empirical examination of the entire manor by actual perambulation (Norden 116), Marvell's poetic surveyor does not stay inside the house but walks through each and every section of the estate and interacts with its various members. While evoking the generic conventions of the country house poem, the poet retools them into a new frame of perception, a modern poetic survey of an estate.

In that sense, I would argue that this poem is presented as a sort of estate map that surveyors produced based on the result of their empirical and analytical survey. According to McRae, mapping is the estate surveyor's radical new strategy for the

representation of the land, and it symbolizes a new individualist attitude towards land ownership (189-92). With sub-sections devoted to each division and subdivision of the estate, Marvell's poem takes a structure analogous to that of an estate surveyor's map: in estate maps, surveyor's analytic perception of the estate was often expressed by marking the divisions of the estate with different colors. In that regard, I would argue that the seemingly fragmented and rambling structure of this poem, its "sharp discontinuities" (Hirst and Zwicker 248), as has been noted many readers, is a result of deliberate structural choice of this surveyor poet.

At the same time, Marvell's poetic surveyor goes further than merely adopting the empirical and rational techniques of surveying. Land surveyors were often attacked as "agent[s] of those people whose covetousness threatens the existing order; most particularly, of landlords enclosing common lands and causing the depopulation of rural villages" (McRae 169-70). They worked hard "to discover any means of increasing the income of [their] employers" to the detriment of tenants' interests (Wrightson 131). While surveyors' rational-empirical-legalistic analysis and their ambition to provide "perfect" knowledge of the land often benefited major landowners at the expense of the landless, Marvell's poetic surveyor pursues further the potential of this new methodology to capture even the voices and perspectives that challenge the new cultural values embodied in Sir Thomas's household. As a result, he creates a poetic map that goes so far as to question this estate's status as "Paradise's only map" (768).

2. Walking Out

2-1. The Reformed Garden of the Protestant Family

Stepping outside the house, the poet first surveys the rather recent historical origin of Appleton House as the property of this household. Country house poems routinely emphasize the lineal perpetuity of the ancient household. Marvell's move of historicizing this estate, therefore, is a crucial part of his poetic surveyorship, but such aspect of his poetic innovation is beyond the scope of the present article. Moving away from the past of the house and embarking on his survey of the present estate, the poet pauses at Sir Thomas's garden right outside the house and portrays his patron as an innovator. He highlights the discipline of this well-organized military garden in allusion to the current lord's fame as a great military leader and innovator of the New Model Army. Sir Thomas's ability to keep his garden "fresh . . . and flourishing" (348) parallels his efficiency as a general who was credited with the organization and training of the parliamentary army. With its principle of meritocracy and regular pay, though in reality the pay was often in arrears, and with its higher standard of discipline, the New Model Army represented a radically new approach to building a national military force. Sir Thomas was a representative figure of the military innovations of the early modern period, which historians labeled as "an age of military revolution" (Werlin 371-72).

The prevalence of military language in the garden sequence also distinguishes Marvell's treatment of the garden from its traditional literary representations. This surveyor-poet does not merely reiterate the repertoire of the courtly love poetry. Rather than a locus of extramarital "courtly love," this garden epitomizes the virtuous married love of Sir Thomas and his wife, Lady Vere, and the chastity of his virgin

daughter, Maria Fairfax. While Marvell's words echo the language of Cavalier poets like Thomas Carew, such echoes only illuminate the distance of this Protestant garden from that of Carew's poem like "A Rapture." The "Switzers of our guard" in *UAH*, for example, which recalls "[The] grim Swisse" that guards the flowers from male lovers in Carew's poem, are now flowers themselves that have internalized the discipline of militant Protestantism. Like the bare house with a narrow gate, the garden embodies the cultural values of Sir Thomas's family.

2-2. To the Field: The Logic of Agrarian Improvement

While Sir Thomas's garden expresses the cultural values of this household, the surveyor-poet does not linger in the garden but chooses to walk out to the field. This move is analogous to Baconian emphasis on direct observation of the natural world. Rather than relying on the classical authorities of natural history like Aristotle and Pliny, early modern students of nature walked out to the field and engaged in actual observations of the natural world. They began to study "the living universe in ways that were entirely new in Western civilization." Already in the sixteenth century, Conrad Gesner, an early modern pioneer of zoology and botany, engaged "in large-scale systematic surveys of natural history based on . . . direct observation" (Hoeniger 145). In the same spirit, university medical students began to be sent out to the surrounding countryside to learn about the important medicinal plants through actual observation, rather than learning about them only through books (Hoeniger 145). This emphasis on experience and direct observation continued to gain influence. In *Of Education*, John Milton asks students to travel outside the school and see "all the quarters of the land" (Milton 412-13). Likewise, in *Pseudodoxia Epidemica* [*Vulgar Errors*] (1646), Thomas Browne attempts to disabuse all sorts of accepted

misconceptions with the new findings gained through the actual observation of the natural world. Marvell's surveyor-poet shares and practices this empiricist spirit of the early modern scientific culture.

This surveyor-poet, therefore, walks out to examine the field, the site of history and production. In direct contrast to the timeless world of Penshurst and Saxham, this field is a scene of action and constant change, changing faster than Inigo Jones's famous theatrical machinery ("No scene that turns with engines strange / Does oft'ner than these meadows change." 385-86). It is not only a locus of agricultural activity but also one of the military campaigns of the Civil War: the field of Appleton is part of the very stage in which only recently major battles were fought in the early phase of the Civil War when Sir Thomas established his military career. Battles were fought in nearby Tadcaster, Selby, and Sherburn as well as in famous Marston Moor, which is less than ten miles away from Appleton House (Markham 56-187; Wilding 162). No wonder Marvell's lines are filled with images of military campaigns and their deadly violence. Occupying the physical center of the poem, stanzas 47-60 of this ninety-seven-stanza poem, the meadow is the locus of history, the political and socioeconomic reality of mid-seventeenth-century England.

Now that the agricultural field, the former *periphery* of the traditional order, occupies the center stage in this poem and reclaims its importance as the locus of production, it demands the surveyor-poet's careful attention to itself. It is no surprise, therefore, that we encounter a detailed description, though in figurative language, of agricultural production in the meadow sequence. Critics have already noted the accuracy of this surveyor-poet's record. Hirst and Zwicker, for instance, have noted "[t]he precision with which Marvell takes us through the season's agricultural calendar in the Vale of York" (Hirst and Zwicker 251). I would like to direct our special attention to a husbandry technique recorded in the meadow section, the

artificial flood, which I believe, provides a key to the values Marvell associates with Nun Appleton estate and its lord.

Then, to conclude these pleasant acts,
Denton sets ope its cataracts;
And makes the meadow truly be
(What it but seemed before) a sea.
For, jealous of its Lord's long stay,
It tries t'invite him thus away,
The river in itself is drowned,
And isles th'astonished cattle round. (465-72)

While much critical attention has been paid to the metaphorical significance of this flooding, the literal act and its historical significance have not received much attention. For example, this innovative agrarian practice is not mentioned in Nigel Smith's edition of Marvell, the most updated scholarly edition of Marvell's poetry. I argue that this scene is a key to understanding Marvell's representation of Sir Thomas's household. The scene indicates that one of the most advanced agricultural technics of the time is used in Sir Thomas's estate and that the poet-surveyor notices and records it.

The agricultural technique in this scene, namely, the floating/flooding⁵⁾ of the watermeadows, is one of the crucial agricultural improvements of the early modern period, according to Eric Kerridge, an agricultural historian. "The floated meadow ended the critical shortage of feed in April by giving earlier grass and more hay." The watermeadows were flooded and covered with water during the cold winter months for protection and early growth of hay, which would provide much-needed early feed for the livestock. The monstrously tall grasses described at the beginning of the meadow scene ("And now to the abyss I pass / Of that unfathomable grass"

369-70) suggest that this was a flooded field: the hay crop from the floated meadow was usually "about four times as great as from an equal area of unfloatated wet meadow" (287). According to Kerridge, the watermeadows were often flooded after the mowing in June or July for a second or third crop of hay, and dairy cattle were put in the meadows in high summer and early autumn to eat off the meadows. This corresponds with the agricultural practice recorded in Marvell's lines: ". . . to this naked equal flat, / . . . The villagers in common chase / Their cattle, which it closer rase" (449-52). The sequence of events in the meadow-flood scene testifies to the poet's accurate observation and knowledge of this advanced practice of husbandry. The flooding concludes the "pleasant acts" (465) of the mowers' harvest of the hay (385-432), its drying in stacks (433-40), and the cattle's grazing in the mowed meadow (441-64).

What does this new technique tell us about this estate and why does Marvell provide such details that hint at this new agrarian technology? Perhaps more importantly, what does that tell us about this poem? According to Kerridge, the flooding of the watermeadows was introduced sometime "in the early seventeenth century, spread widely in the second and third quarters of the century and had become standard practice by the early eighteenth" (289). The presence of such new agricultural techniques in this estate as early as 1651, and of the large-scale irrigational improvements necessary for such a practice, suggests that Sir Thomas's is a very well-managed estate with cutting-edge innovations, and the poet-surveyor is well attuned to them.

Indeed, Sir Thomas himself seems to belong to the growing group of gentry landowners who were paying unprecedented attention to the modern management of their estates. Sir Thomas's astute estate planning for his only daughter Mary, a controversial plan being justified in this poem, demonstrates Sir Thomas's careful

attention to estate matters. Sir Thomas's enthusiasm for gardening also suggests his familiarity with contemporary husbandry manuals and discussions of agricultural improvement, since, in this period, gardening encompassed much broader areas of husbandry than it does today. "In the seventeenth century the literature of horticultural improvement often merged into that of agricultural improvement. In the mind, as in practice, the boundaries between the kitchen garden, the orchard, and the fields beyond were difficult to maintain" (Leslie 133). Improvement in arable farming was very often achieved by applying advanced horticultural techniques (Fussell 614).

Perhaps it is not surprising that Marvell presents the estate of this former Lord General of the Parliamentary Army as one well-managed with advanced agricultural technologies like floating. The late 1640s and early 1650s witnessed an active promotion of the productive use of land by the people in the Hartlib circle with the support of the Parliamentarian government. For Hartlib and his associates, agricultural innovation constituted an integral part of their program of social progress, and their efforts in the 1640s and 50s directly contributed to the agricultural revolution of the late seventeenth and eighteenth century (Raylor 91-92). The floating was the foremost of important agricultural innovations recommended by these Parliamentarian improvers like Walter Blith. The floating was the first of the "six pieces of improvement" promoted in Blith's highly influential *The English Improver or a New Survey of Husbandry* (1649). In such a historical context, the poet's adoption of the role of surveyor seems a deliberate move in eulogizing his patron as an improving landlord, and this poetic surveyor makes sure to capture the key agricultural innovation of this estate.

3. Beyond the Logic of Improvement: Multiple Visions of the Meadow

If the poetic surveyor's description of the advanced agricultural practice in Sir Thomas's field introduces the progressive logic of agrarian capitalism, as voiced by the Hartlib wing of the Parliamentarian side, his attention to the agricultural laborers integrates a different view voiced at this critical juncture in English history. This was a vision that challenged not only the Royalist ideology of Merry Old England portrayed in earlier country house poems, but also the capitalist improvement of land and its concomitant re-organization of the village community and traditional landlord-tenant farmer relations. By moving out of the manor house to the open agricultural landscape, Marvell's surveyor-poet makes a conscious choice to trace the agricultural reality of the field. His survey, however, does not stop at accurately registering agricultural practice. Marvell's survey of the estate also differs from earlier poems of the country house in the way he records agricultural laborers. In the centripetal world of the country house poems, villagers willingly identify themselves with the idealized community centered around the manor house, and the epitome of this "organic community" is portrayed in the central scene of the communal banquet. No such instances of a charitable relationship to the surrounding community exist in this poem: Marvell describes no poor people from the village participating in the communal feast in the house. We do not see those happy villagers of "To Penshurst" who freely visit the house and deferentially pay their tributes, as surrounding nature does to the household. The poor exist in this building only as a decoration (lines 65-66), as a reminder of the old culture that has perished. Instead, the surveyor-poet locates the village people outside the house, in the field, engaged in their everyday life of hard labor. And he records that these agricultural laborers have their own life

and culture, no longer part of the “organic” unity of a collective *us*. Their festivity as an integral part of their hard labor and production, is now their own, separated from the cultural values of the manor house.

And now the careless victors play,
Dancing the triumphs of the hay;
Where every mower’s wholesome heat
Smells like an Alexander’s sweat.
Their females fragrant as the mead
Which they in fairy circles tread:
When at their dance’s end they kiss,
Their new-made hay not sweeter is. (425-32)⁶⁾

This separation of cultures is coterminous with the long-term transformation in the relationship of production, which was formally confirmed by the parliamentary abolition of feudal tenures in 1646. As Christopher Hill has argued, “the agricultural revolution of the later seventeenth century was made at the expense of tenants” whose customary rights were being eroded while the property rights of the landlords came to be legally protected (Hill, *Tinker* 129). Small tenants had been forcefully ‘freed’ from their land, and as a result, the employer-laborer relationship had been replacing the traditional landlord-tenant relationship. The idealized manor-village community of Penshurst was not a dominant reality even in Jonson’s own day, not to mention forty or so years later in the mid-seventeenth century. Now villagers no longer identify with the world of the manor but have their own culture and their own vision. The laborers’ attitude to the tutor-surveyor, whom they would associate with the landlord’s household, is cool and distanced, to say the least. Demonstrating her thorough knowledge of the Bible, Thestylis’ rhetoric separates her kind from the observing speaker: “*He called us Israelites*” (406 – italics mine). Not only is the

laboring population represented in its actual daily life in this poetic survey, but this laborer talks back to the poet, refusing the subjected role of mere subject matter, and violently bursting out of the poetic fabric (Hirst and Zwicker 253; Patterson 155; Malcolmson 262).

Common people now have their own ideas and their own utopian social program, which would challenge the propertied elite, whether Royalist or Parliamentary. The dominant military image in the meadow scene makes literal sense: this meadow was part of the very field where battles were fought, and these were the very people who fought in those battles.

The mower now commands the field;
 In whose new traverse seemeth wrought
 A camp of battle newly fought:
 Where, as the meads with hay, the plain
 Lies quilted o'er with bodies slain:
 The women that with forks it fling,
 Do represent the pillaging. (418-24)

The commoners became politicized to an unprecedented degree through religious-political pamphlets by Puritan preachers, through the New Model Army, which became "a hothouse of political ideas" (Hill, *World Turned* 58), and through the liberating experience of sectarian congregations. Rather than simply serving the will of the Royalist or the Parliamentary side, they now began to voice their own ideas and claim their own culture, their own utopian plan for the commonwealth. Christopher Hill sees this third voice as a force that could have led to "another revolution," which, unlike the actual revolution that established "the sacred rights of property (abolition of feudal tenures, no arbitrary taxation)," "might have established

communal property, a far wider democracy in political and legal institutions” and “disestablished the state church and rejected the protestant ethic.” (Hill, *World Turned* 15)

In Marvell’s poem, the meadow is the site of contestation where the imperative of improvement encounters the alternative logic of the laboring population. In the meadow-flood scene, the surveyor-poet not only registers the advanced farming practice of Sir Thomas’ estate but also gives space to voices that demand a different kind of agrarian reform. Marvell’s apparent reference to the True Levellers introduces such an alternative vision in this poem, a “leveled” society like Eden before the Fall, like the harvested meadow created by the mowers’ military labor: “The world when first created sure / Was such a table rase and pure” (445-46). The poet compares the mown field to the Levellers’ request for more equitable society: “this naked equal flat, / Which Levellers take pattern at” (449-50). It is likely that the reference is to the proto-communist arguments of the Diggers, a group led by Gerrard Winstanley. Diggers called themselves “True Levellers” and Sir Thomas had interactions with them as Lord General during the group’s experiment in St. George’s Hill in 1649-1650 (Wilding 153-56; Patton 824-26; Rogers 40-41).

In fact, the poet-surveyor further delineates a view that is distinct not only from the values embodied by the improving landlords like Sir Thomas but also from those of True Levellers. The meadow-flooding scene, together with the final lines of the poem, obliquely allude to the ongoing popular unrests that directly challenge the logic of agrarian improvement: fenmen riots in nearby Hatfield Chase and Isle of Axholme, an area about twenty miles away from Nun Appleton. The area was among the first of the immense tracts of fen along the east coast of England that were to be drained into arable land over the course of the seventeenth and eighteenth centuries, a historic transformation labeled as "England's greatest ecological disaster"

by one historian (Rotherham). The draining project, a prime example of agrarian improvement, driven by technology and large capital, contributed to the much-needed increase in grain production. But it also destroyed the fen ecosystem, along with the traditional livelihood of fenmen, fishing and fowling. They were coerced into the project and inadequately compensated for the loss of their customary use rights of the commons (Thirsk 169). Hatfield Chase and Isle of Axholme saw the most violent riots among all the fens in this period. During the very summer in 1651 when Marvell was penning *UAH*, fenmen were staging violent attacks on the drainage works and on the new settlements of projectors' tenants (Hirst and Zwicker 253).

It is true that Marvell's allusion to this ongoing unrest is very subtle and hard to in down. I would suggest, however, that the harvested meadow "Which Levellers take pattern at"(450) triggers the association with the ongoing riots, not just because of Leveller Lilburne's involvement with the fenmen (Lindley 188-222; Hughes 13-45), but also because of the word "Level," the word used to refer to the drained land.⁷ Likewise, the "moist" "salmon fishers" (769) at the very end of the poem, "rational amphibii" (774) coming out of the river, allude to fenmen who were characterized as living half on land and half in water by contemporaries like Samuel Pepys (Pepys 3.281-82).

In his discussion of environmental protest literature of the Renaissance, Ken Hiltner makes a distinction between early modern protesters who "were violently opposed to changes in land use" from Levellers and Diggers, citing the local poor's violent opposition to Diggers' attempt to cultivate the waste land in St. George's Hill (127-29). According to Hiltner, in their approach to cultivating the waste land, Winstanley's group shared the logic of improvement with the seventeenth-century agricultural reformers, as shown in Winstanley's words: "the main thing we aym at . . . is this, To lay hold upon, and as we stand in need, to Cut and Fell, and make

the best advantage we can of the Woods and Trees, that grow upon the Commons, To be a stock for our selves and our poor Brethren . . .” (Cited in Hiltner 128). In that regard, their stance differs from those of fenmen who were protesting against the impending destruction of fen ecosystem, the replacement of pastoral economies with arable ones, and the resulting alteration of the local communities. Alluding to this local context that carries a world-historic significance, the poetic surveyor even gives space to this proto-environmentalist voice, subtly separating it out from those of True Levellers.

4. Coda: Delineating the Lines of Conflict in "Paradise's only map"

In his surveying walk of the estate, the poet delineates various views existent in this estate, refusing to vocalize only the utopian vision of the country house as seen in earlier examples of the genre. I have argued that the poet innovates the genre of the country house poem by separating it from the traditional ideals and refashioning it to promote the cultural values of Sir Thomas's household. But the poet does not stop there. In the lines cited at the beginning of the present study, playing with multi-perspectivism enabled by the new optical instruments, the surveyor-poet pushes things a bit further and suggests the implications of such possibilities of multiple perspectives: depending on where one stands, he suggests, the villager's cattle could look like mere fleas or heavenly constellations. In such moments, the poet seems to offer a level discursive playing field to multiple voices surrounding the seventeenth-century land improvement, rather than only idealizing the cultural view of modernizing landlord. The poet's main concern, certainly, is to separate the country

house poem from traditional values and to align it to the emerging preoccupations of the landed elite. But he does not just stop there; he pursues the possibility of this new scientific methodology even further to capture multiple voices and perspectives that challenge the very culture officially eulogized in this poem. As a result of such methodological innovation, this poetic map manages to delineate the contours of the discursive conflict centered around the countryside, the locus of the birth of capitalism in seventeenth-century England.⁸⁾

Notes

- 1) All the quotations of Marvell's poetry are taken from *The Poems of Andrew Marvell*, edited by Nigel Smith, Routledge, 2013. Going forward, the line numbers of a quotation will be provided inside a parenthesis and *Upon Appleton House* will be referred to in abbreviation as *UAH*.
- 2) See, for example, Fallon, *Milton among the Philosophers*; Edwards, *Milton and the Natural World*; Danielson, *Paradise Lost and the Cosmological Revolution*; Martin, *Milton and the New Scientific Age*.
- 3) A detailed comparative analysis between earlier examples of this genre and *UAH* was made in my unpublished dissertation, *Situated Utopias: Imagining Family and Community in Early Modern England* (2011).
- 4) All quotations from Carew's poetry are from *The Poems of Thomas Carew*, edited by Rhodes Dunlap, 1949, Clarendon Press, 1957.
- 5) The terms "floating" and "flooding" seem to have been used interchangeably. According to the OED, to flood also means "[t]o cover or fill with water; to irrigate (grass land)" and it cites J. C. Loudon's *An Encyclopedia Agriculture* (1831): "Flooding and warping are modes of irrigation, the former for manuring grass lands."
- 6) Based on these lines, William Empson makes a case for Marvell's populism: "I do not know that any other poet has praised the smell of a farm hand" (48-49). Michael Wilding, however, argues that "The qualities of country labourers are not qualities presented for admiration" (157).
- 7) This association was not lost to one contemporary who claimed that "the undertakers were the true Levellers, for they invented the equivocal word Level." (*Anti-Projector* 6)
- 8) Ellen Meiksins Wood has emphasized the country, rather the city, as the locus of the origin of capitalism in her analysis of England as the first country that saw the advent of capitalism in the late seventeenth century. See *The Origin of Capitalism: A Longer View* (2017), esp. 95-124.

Works Cited

- Carew, Thomas. *The Poems of Thomas Carew*. Edited by Rhodes Dunlap, 1949. Clarendon, 1957.
- Danielson, Dennis. *Paradise Lost and the Cosmological Revolution*. Cambridge UP, 2014.
- Dzelzainis, Martin. "Marvell and Science." *The Oxford Handbook of Andrew Marvell*, edited by Martin Dzelzainis and Edward Holberton, Oxford UP, 2019, pp. 180-205.
- Edwards, Karen. *Milton and the Natural World: Science and Poetry in Paradise Lost*. Cambridge UP, 1999.
- Empson, William. "Natural Magic and Populism in Marvell's Poetry." *Andrew Marvell: Tercentenary Essays*, edited by R. L. Brett, Oxford UP, 1979.
- Fallon, Stephen M. *Milton among the Philosophers*. Cornell UP, 1991.
- Fowler, Alastair, editor. *The Country House Poem: A Cabinet of Seventeenth-Century Estate Poems and Related Items*. Edinburgh UP, 1994.
- Hale, John. "Warfare and Cartography, ca. 1450 to ca. 1640." *The History of Cartography*, edited by David Woodward, vol. 3, part 1, The University of Chicago P, 2007, pp. 719-37.
- Hoeniger, F. David. "How Plants and Animals Were Studied in the Mid-Sixteenth Century." *Science and the Arts in the Renaissance*, edited by John W. Shirley and F. David Hoeniger, The Folger Shakespeare Library, 1985, pp. 130-48.
- Hill, Christopher. *Intellectual Origins of the English Revolution*. Oxford UP, 1965.
- . *The World Turned Upside Down: Radical Ideas During the English Revolution*. 1972. Penguin, 1991.

- . *A Tinker and a Poor Man: John Bunyan and His Church 1628-1688*. Norton, 1988.
- , editor. *Law of Freedom and Other Writings*. 1973. Cambridge UP, 1983.
- Hiltner, Ken. *What Else Is Pastoral?: Renaissance Literature and the Environment*. Cornell UP, 2011.
- Hirst, Derek and Steven Zwicker. "High Summer at Nun Appleton, 1651: Andrew Marvell and Lord Fairfax's Occasions." *The Historical Journal*, vol. 36, no. 2, 1993, pp. 247-69.
- Hughes, J.D. "The Drainage Disputes in The Isle of Axholme and their connexion with the Leveller Movement: A Re-examination." *The Lincolnshire Historian*, vol. 2, no.1, 1954, pp. 13-53.
- Kerridge, Eric. "The Sheepfold in Wiltshire and the Floating of the Watermeadows." *The Economic History Review*, vol. 6, no. 3, 1953-54, pp. 282-89.
- Keil, Inge. "Technology transfer and scientific specialization: Johann Wiesel, optician of Augsburg, and the Hartlib circle." *Samuel Hartlib and Universal Reformation*, edited by Mark Greengrass, Michael Leslie, and Timothy Raylor, Cambridge UP, 1994, pp. 268-78.
- Leslie, Michael. "'Bringing Ingenuity into Fashion': The 'Elysium Britannicum' and the Reformation of Husbandry." *John Evelyn's "Elysium Britannicum" and European Gardening*, edited by Therese O'Malley and Joachim Wolschke-Bulmahn, Dumbarton Oaks Research Library and Collection, 1998, pp. 131-52.
- Lindgren, Uta. "Land Surveys, Instruments, and Practitioners in the Renaissance." *The History of Cartography*, edited by David Woodward, vol. 3, part 1, 2007, pp. 477-508.
- Lindley, Keith. *Fenland Riots and the English Revolution*. Heinemann, 1982.

- Low, Anthony. *The Georgic Revolution*. Princeton UP, 1985.
- McRae, Andrew. *God Speed the Plough: The Representation of Agrarian England, 1500-1660*. Cambridge UP, 1996.
- Malcolmson, Cristina. "The Garden Enclosed / The Woman Enclosed: Marvell and the Cavalier Poets." *Enclosure Acts: Sexuality, Property, and Culture in Early Modern England*, edited by Richard Burt and John Michael Archer, Cornell UP, 1994.
- Margoliouth, H. M., editor. *The Poems and Letters of Andrew Marvell*. Rev. edited by Pierre Legouis with the collaboration of E.E. Duncan-Jones, vol. 1, Oxford UP, 1971.
- Martin, Catherine Gimelli, editor. *Milton and the New Scientific Age: Poetry, Science, Fiction*. Routledge, 2019.
- Milton, John. "Of Education." *Complete Prose Works of John Milton*, vol. 2, edited by Ernest Sirluck, Yale UP, 1959, pp. 357-415.
- Norden, John. *The Surveiors Dialogue*. London, 1607.
- Patterson, Annabel. *Pastoral and Ideology: Virgil to Valéry*. U of California P, 1987.
- Patton, Brian. "Preserving Property: History, Genealogy, and Inheritance in 'Upon Appleton House'." *Renaissance Quarterly*, vol. 49, no. 4, 1996. pp. 824-839.
- Samuel Pepys, *The Diary of Samuel Pepys*. Edited by R.C. Latham and William Matthews, vol. 3, AMS Press, 1968.
- Prawdzik, Brendan. "Greenwashing Marvell." *Marvell Studies*, vol. 4, no. 1, 2019, pp. 1-28.
- Raylor, Timothy. "Samuel Hartlib and the Commonwealth of Bees." *Culture and Cultivation in Early Modern England: Writing and the Land*, edited by Michael Leslie and Timothy Raylor, Leicester UP, 1992, pp. 91-129.
- Rogers, John. *The Matter of Revolution: Science, Poetry, and Politics in the Age of*

- Milton*. Yale UP, 1996.
- Rotherham, Ian D. *The Lost Fens: England's Greatest Ecological Disaster*. The History Press, 2013.
- Smith, Nigel, editor. *The Poems of Andrew Marvell*. Routledge, 2013.
- The Anti-Projector, or, The History of the Fen Project*. 1646.
- Thirsk, Joan. "Seventeenth-Century Agriculture and Social Change." *Land, Church, and People: Essays Presented to Professor H.P.R. Finberg*, edited by Joan Thirsk, 1970, pp. 148-77.
- Thomas, Keith. "Women and the Civil War Sects." *Past and Present*, no.13, 1958, pp. 42-62.
- Turner, Henry S. "Literature and Mapping in Early Modern England, 1520-1688." *The History of Cartography*, edited by David Woodward, vol. 3, part 1, 2007, pp. 412-26.
- Von Maltzahn, Nicholas. "Andrew Marvell and the Prehistory of Whiggism." *Cultures of Whiggism: New Essays on English Literature and Culture in the Long Eighteenth Century*, edited by David Womersley, Paddy Bullard, and Abigail Williams. U of Delaware P, 2005, pp. 31-61.
- Werlin, Julianne. "Marvell and the Strategic Imagination: Fortification in *Upon Appleton House*." *The Review of English Studies*, vol. 63, no. 260, 2012, pp. 370-387.
- Wilding, Michael. *Dragons Teeth: Literature in the English Revolution*. Clarendon, 1987.
- Wood, Ellen Meiksins. *The Origin of Capitalism: A Longer View*. Verso, 2002.
- Wootton, David. *The Invention of Science*. Harper, 2015.
- Wrightson, Keith. *English Society, 1580-1680*. Hutchinson, 1982.
- Zwicker, Steven. "On behalf of the Age of Andrew Marvell?" *Texts and Readers in*

the Age of Marvell, edited by Christopher D'Addario and Matthew C. Augustine, Manchester UP, 2018, pp. 245-250.

국문초록

“낙원의 유일한 지도” 측량하기: 앤드류 마블과 근세 과학

조 현 영

단독 / 한국조지메이슨대

이 연구는 과학혁명의 시기를 살아간 시인 앤드류 마블의 시가 그 시대 자연과학과의 연관성 속에서 연구된 경우가 드물다는 문제의식에서 출발한다. 마블의 시에는 동시대 과학에 대한 그의 관심을 보여주는 지점들이 많은데도 불구하고, 그러한 연결점을 파고드는 논의는 찾아보기 어렵다. 앤드류 마블의 대표적인 작품으로 여겨지는 『에플턴 저택』을 점검하면서, 본 연구는 마블이 자연과학이 제공한 새로운 인식을 장원시(莊園詩)의 구조적인 혁신에 차용하고 있다고 본다. 이러한 혁신의 핵심은 시적 화자가 토지측량사의 방법론을 차용하는 데 있다. 이 시의 시적 화자는, 새로운 과학기술을 사용하여 토지를 분석적으로 직접 점검하고 관찰하는 토지측량사의 과학적 방법론을 차용하고 그 분석적 방식으로 이 장원을 그 각각의 상이한 부분으로 나누어 관찰함으로써, 이 장르의 이전 시와는 뚜렷한 차별성을 갖는 혁신을 이루어 낸다. 나아가 그의 이런 혁신은 이전의 장원시에는 담기지 않았던 전원사회에 존재하는 다른 목소리들을 담아내는 성과로까지 이어지고 있다. 이 시는 시적 측량사가 그려내는 이 장원의 지도라 볼 수 있는데, 이 지도에는 토지 생산성 재고라는 지주계층의 근대화적 담론, 디거파의 토지개혁적 목소리, 습지 폭동에서 나타나는 농업근대화 자체에 반대하는 목소리 등, 영국 농업혁명의 초기 국면에서 대두된 주된 갈등의 구도가 재현된다.

주제어: 근세 과학, 장원시(莊園詩), 농업혁명, 디거파, 습지 폭동

논문접수일: 2022.05.23

심사완료일: 2022.06.15

게재 확정일: 2022.06.26

이름: 조현영

소속: 한국조지메이슨대학교 영어영문학과 부교수

이메일: hcho23@gmu.edu