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Windows on the World: The Literary Revolutions of Adam King's *Genethliacon Iesu Christi*

The *Genethliacon Iesu Christi* (henceforth *GIC*) is a Latin poem written circa 1584–86 by Adam King, a former professor of mathematics and philosophy at the Collège de Lisieux, University of Paris.¹ Written in early modern Latin (Neo-Latin), *GIC* is a hexameter poem of 204 lines, which forms part of a larger poetic cycle on the life of Christ that runs to 869 lines.² There is no evidence it was published in King's lifetime, and our earliest surviving copy of the poem is in a manuscript written at some point between 1617 and King's death in 1620.³ *GIC* was, however, published in Amsterdam in 1637, fully 17 years after Adam King's death.⁴ Since the time of its publication, it has received no scholarly comment, and this article represents the first considered treatment of the poem.⁵ It is a devotional poem celebrating the birth of Christ. King wrote it during a time of significant cultural

1 Durkan (2001) offered the first (albeit short) modern account of King's life. McOmish (2016) provided some additional biographical material. McOmish (2018) is a first detailed evaluation of King's scientific literature. For evidence of his contemporary vocational activities in Paris, cf. Du Boulay's *Historia universitatis Parisiensis* (1673, pp. 788–90). Poems written by King during his time in Paris survive in manuscript form in the University of Edinburgh library (DK.7.29).

2 The other two poems are entitled: *Iesu Christi Passio* and *Iesu Christi Triumphus, Resurrectionem & Ascensionem complexus*. All three poems are contained in the above manuscript at Edinburgh, from which the text of King's poem used in this article is drawn.

3 The King MS is composed of two different manuscripts, which have latterly been bound together at some point in the 18th century. The first contains King's commentary and supplements to George Buchanan's *De Sphaera* (see note 13 below), which was used by Ruddiman (1725) in his edition of Buchanan, *Opera Omnia*. The text of Buchanan's poem used in this article is taken from this manuscript. The second manuscript contains King's body of occasional poems (*Sylvae*). *GIC* and the other Christ cycle poems are contained in the second manuscript at 1^r–10^r. All the *Sylvae* are in the same hand. The last dateable poem in them is King's *Epibaterion ad Regem in Scotiam Redeuntem*, which he composed to welcome King James back to Scotland in 1617—see Green (2016, p. 134) for the context.

4 *GIC* and the other poems on Christ's life were published after King's death in the large anthology of Scottish Latin poetry the *Delitiae Poetarum Scotorum* (henceforth *DPS*): Johnston (1637, vol. 2, pp. 201–23).

5 In 2013, an AHRC project to translate part of the *DPS* produced a provisional electronic edition of the poem with some critical comment: see http://www.dps.gla.ac.uk/delitiae/display/?pid=d2_KinA_001&aid=KinA. A revised edition of *GIC* and all of King's poetic corpus is in production.

change across the religious, political, and scientific spectrum in early-modern Europe. Despite its seemingly transparent subject matter on the day of Christ's birth, it is a work that addresses with range and subtlety key aspects of those scientific, religious, and political changes. Its meaning and significance only reveal themselves when its complex relationship with the Latin literary and cultural tradition is recognised and understood. King alerts his audience to the literary series of which his poem is part by clear imitation of a literary source, whose own source is then signalled by a further layer of literary imitation. In this way, he attempts to provide his reader with a broad understanding of the poem's philosophical context through an expansive account of the dialectical evolution and intellectual genealogy of his message. Also, King, who would later compose a vast prose commentary on the themes explored in this poem (see note 13 below), uses the economy of his verse to allow his readers to apprehend the depth of his message through a knowing, 'citational' imitation of a cluster of responses to the kind of philosophical message that he was putting across.⁶

This chapter analyses the introduction to *GIC* and its primary point of reference, George Buchanan's *De Sphaera* (begun c. 1550; never completed). It examines how King engages with Buchanan's sources and how he reshapes their messages (and Buchanan's). It discusses the implications of King's consciously multi-layered allusive practices for our understanding of how early-modern dialectical movements within philosophical and scientific discourse were shaped and transmitted in verse. Through King's subtle alterations and skilfully-wrought recasting of Buchanan and his sources, and allusions to the cluster of other authors who are 'cited' via imitation, it is possible to discern the widening of some of the major fault lines and cracks in Europe's intellectual culture that followed the great religious and scientific revolutions of the mid-sixteenth to early seventeenth centuries. At one level, King attempts to place himself within the series of literary and philosophical writers that includes Buchanan, as both the logical development of that series and, ultimately, of Buchanan himself. The people King wants his message to reach were, like him (and his brother Alexander, who attended St Leonard's College when Buchanan was principal there), admirers of Buchanan. Many of them were close personal friends of King and his family, who came from across Edinburgh's differing confessional divides, like the Calvinist Napiers and their broader family.⁷ Even seemingly implacable foes like Andrew Melville, who

⁶ See McOmish (2016, pp. 67–8), for an introductory discussion to King's astronomical poetry (*Sphaera*) and the central role of imitative series and clusters in delivering a detailed account of philosophical and scientific ideas.

⁷ See note 21 below.

was involved in the inquisition tasked with ‘converting’ Adam King to the Reformed Church in 1595, found common ground with King in their mutual attachment to the works of Petrus Ramus and Buchanan.⁸ In *GIC*, it is possible to discern this intended audience, to understand something of their shared cultural universe (and the strains upon it), and to gain a greater appreciation of the vitality and significance of the literary landscape of early-modern Latin literature.

The two versions of the text that survive in published and manuscript form do not contain any explicit information about the date of the poem’s composition. The arrangement of the poems in the manuscript suggests that *GIC* may have been composed while King was in Paris between 1580 and 1595. *GIC* is in the first half of the manuscript that contains poems whose titles and subject matter address various events that occurred between 1584 and 1589 at the University of Paris; the latter half deals with subjects and events that happened after King’s return to Edinburgh from 1600 to 1617.⁹ Evidence of King’s main literary point of reference in the introduction to the poem, and a consideration of the way he changes and manipulates that source, makes it possible to date *GIC* and the larger three-poem collection of which it is a part more precisely. King’s primary textual point of reference is the first book of George Buchanan’s epic five-book poem *De Sphaera*, which was the first to go to print in a 1584 stand-alone edition, two years after Buchanan’s death.¹⁰ The first lines of the poem give the audience its first taste of the close relationship between King and Buchanan:

8 See McOmish (2018, pp. 160–6).

9 The first half begins with *GIC* and ends with King’s poem on the installation of John Hamilton as rector of the University of Paris (*Ioannis Hamiltonii in Rectorem Academiae Parisinae Inauguratio*): 1^r–12^r. The second half begins with King’s poem on the so-called Gowrie conspiracy (*Soteria*) written in 1601 and ends with his *Desiderium Patriae Caelestis*: 12^r–19^v. Jamie Reid-Baxter has produced an electronic edition of the *Soteria*, which details the conspiracy and its context: www.philological.bham.ac.uk/king [accessed 1st March 2018].

10 Repeated requests to Buchanan for advance manuscript editions of the *De Sphaera* (Naiden (1952, pp. 25–6)), suggest he was reluctant to let it circulate in its unfinished form. This makes it unlikely that King had a copy of the poem prior to 1584. King states in 1616 (introduction to his commentary, DK.7.29) that for his commentary edition he had used Buchanan’s own manuscript copy, which he must have acquired by that time. The *De Sphaera* had a long and varied publication history. See Naiden (1952, pp. 151–7) for details of printed editions. The earliest publication of the book contained the first 313 lines of book 1, and was printed as a fragment (Buchanan, *Franciscanus et Fratres*, 1584, pp. 207–17). In 1585, books 1 and 2 were printed in their entirety in Paris as *Sphaera*. On the general history of Buchanan’s *Sphaera*, see McFarlane (1981, pp. 355–78) and McFarlane (1976). A translation with some critical notes was also produced in the twentieth century: see Naiden (1952). A complete parallel Latin and English edition of the *De Sphaera* with King’s supplements, and based upon MS DK.7.29, is in production.

Eia age *qui* puros caeli revolubilis ignes
aspicis immenso diffundere lumina mundo,
partirique vices rerum: iam lucida certus
sidera moliri nutu, terrasque iacentes
munificum curare deum: lux ista quotannis 5
dum recolit pura natum de virgine numen;
agnoscas quibus officiis, quantoque favore,
humano indulsit generi Deus ille salutem:
quaque tuos largus dextra providit in usus
omnia quae fecit: nitidi tibi flammea caeli 10
moenia, et immensi radiatos aetheris orbes
immunes senii, cursusque tenore sub uno
aeternos, certis accendere legibus ignes
iussit, perque vices caeca ferrugine vultus
induere, obductaque tegi telluris ab umbra. 15

(King, *Genethliacon Iesu Christi* 1–15)

Come now, you who see that the pure fires of the turning heavens spread out their light through the vast universe and that they mark the universe's changing order: now you see clearly that a generous God controls the bright stars by his will, and manages the fields below. And when that annual day brings again to our mind the god born of a pure virgin, may you know with what duty and how much good-will *that* God granted salvation to the human race, and with what a hand of friendship he generously gave for your use all that he made. He ordered that fires light up in fixed laws the fiery walls of glittering heaven for you, and the radiant globes of the vast firmament, which are immune to decay, and their eternal courses under his control alone; and by turns that they cover their faces in the sightless dark and lie hidden from the enveloping shadow of the earth.

King opens the poem with an invocation to a second person addressee, who is currently looking upon the heavens (lines 1–2: ‘you who ...’). King’s description of the heavens is then related through the gaze of the addressee, who sees its extent and nature (lines 1–2: ‘the pure fires of the turning heavens’; ‘vast universe’). The audience is then invited to consider the heavens during a particular cycle (line 5: ‘that annual day’) and exhorted to express gratitude for the providential deity that has created it all (lines 7–10). The syntactical structure of the opening can be discerned in key segments from the Latin text, which are highlighted in italics above. The second person verb and relative pronoun *qui* (line 1) identify the author’s audience, the conjunction *dum* (line 6) indicates the circumstances necessary for enlightenment, the subjunctive form of a verb of knowing/recognition (line 7: *agnoscas*) encourages and assumes acknowledgment of *some* divinity at work (lower case *deum*/god), and the final lines give us a specific deity (*ille Deus*/*that* God) and its general intention (lines 8–9: *tuos largus ... providit in usus*).

Let us compare this with book 1 of George Buchanan's *De Sphaera*:

... Tu <i>qui</i> fulgentia puro	5
lumine templa <i>habitas</i> , oculis impervia nostris, rerum sancta parens, audacibus annue coeptis :	
<i>dum</i> late in populos ferimus tua facta, polique immensum reseramus opus : gens nescia veri, ut residem longaque animum caligine mersum	10
attollat caelo, et, flammantia moenia mundi <i>dum</i> stupet, et vicibus remeantia tempora certis, auctorem <i>agnoscat</i> : tantam qui robore molem fulciat; aeternis legum moderetur habenis, consilio nostrosque bonus conformet ad usus.	15

(Buchanan, *De Sphaera* 1.5–15)

You who inhabit the regions shining with pure light, impervious to our view, sacred parent of the universe, approve my daring endeavour, while I relate your deeds to people everywhere and reveal the immense structure of the heavens, so that those unfamiliar with the truth may lift up to heaven their sluggish minds, long-mired in darkness, and as they gaze dumb-struck at the flaming walls of the universe, and its regions rising and setting in fixed order, may they know its author, who supports its mass with his strength, steers it with the unwavering reins of his laws, and in his goodness shapes it providentially for our uses.

The introduction to *GIC* follows the thematic, verbal, and structural contours of the corresponding passage in the *De Sphaera*. Buchanan's opening contains an invocation to a second person addressee, who is currently inhabiting the heavens (lines 5–6: 'you who ...'). Buchanan's description of the heavens is then related through a description of the addressee's abode, through which the audience sees its nature and extent (lines 1–2: 'regions shining with pure light'; 'the immense structure of the heavens'). Buchanan then relates how he will invite his audience to consider the annual/seasonal glory of the heavens (line 12: 'rising and setting in fixed order'), and then he exhorts them to express gratitude for the providential deity who has created it all (lines 13–15). A careful examination of the grammatical structure of Buchanan's Latin text highlights the close thematic relationship between both poems. Buchanan's second person verb and relative pronoun *qui* (lines 5–6) identify the author's audience, the conjunctions *dum* (lines 8 and 12) indicate the circumstances necessary for enlightenment, the subjunctive form of a verb of knowing/recognition (line 13: *agnoscat*) encourages and assumes acknowledgment of a divinity at work, and the final line gives us the general specifics of the intention of that deity (line 15: *nostrosque bonus conformet ad usus*).

The themes, syntax, and specific diction of Buchanan's poem are clearly and faithfully reproduced by King. The introduction to *GIC* invites the reader into the

world of astronomical didactic poetry by robustly signposting its intimate relationship to a well-known contemporary exemplar of the genre.¹¹ The poem has set the reader's literary and intellectual expectations. It is in this context that the reader must process the introduction to *GIC*, as it articulates, and intricately recalibrates Buchanan's own literary and intellectual inspirations. Our first sense of this process comes in the first two lines and last two lines that frame the ten line introduction.

Eia age, qui puros caeli revolubilis ignes
aspicis immenso diffundere lumina mundo,
...
quaque tuos largus dextra providit in usus
omnia quae fecit ...

(*GIC* 1–2; 9–10)

Come now, you who see that the pure fires of the turning heavens spread out their light through the vast universe ... and with what a hand of friendship he generously gave for your use all that he made.

Upon first inspection, it seems that these lines are slightly reworked versions of Buchanan's framing lines for 5–15 of *De Sphaera* 1, where Buchanan's description of the pure light in heaven opens the invocation, and his assertion of God's providence and bounty close it. However, the diction and sentiments in King much more closely reflect Manilius' *Astronomica*:

omniaque immenso volitantia lumina mundo,
paci opus, magnos naturae condit in usus.

(Manilius, *Astronomica* 2.23[18]–24)

moreover, a task of peace, he establishes the courses of all the luminaries through the vast heavens so as to further the great designs of nature.

These 'framing' lines in King have a function. They present a detailed, learned affirmation that the poem carries an attachment to one of the underlying philosophical messages of Buchanan's text: the notion of providence. King is presenting a textured, layered reaffirmation of Buchanan's message by directly citing what he sees (and assumes his reader does also) as the source for Buchanan's

¹¹ See McFarlane (1976, 194–9) for an overview of how keenly-awaited Buchanan's *Sphaera* was across Europe even before its publication, and the enthusiasm with which it was met afterwards.

providential frame. The influence upon Buchanan of the same passage from Manilius can be most clearly detected at lines 7 and 15 of *De Sphaera* 1, where the poet articulates the vast structure of the universe and God's guiding hand (*immensum opus ... conformet ad usus*).¹² This process of layering his articulation of Buchanan's core providentialist message is a key feature of King's introduction, and does not limit itself to Buchanan's engagement with Manilius. At line 15, Buchanan informs his audience that it is *consilio*, by design, that god has created the universe. This is Buchanan's rejection of Lucretius' anti-providential argument from *De rerum natura* 1.1021–2 ('Nam certe neque *consilio* primordia rerum | ... locarunt ...'; 'For certainly neither did the first-beginnings place themselves by design ...'). At lines 1–4 of the *De Sphaera*, Buchanan informs the reader that it will be the *semina rerum* (the seeds of the universe) that he will be explicating, and then closes his introduction at line 15 with the opinion that it was by God's design that they were formed; and thus he frames his rejection of Lucretius with Lucretius' own words.

King replicates this rejection of Lucretius' anti-providential message, but not by repeating Buchanan's redeployment of *consilio*. Rather, he reworks Virgil's rejection of Epicurus/Lucretius from *Eclogues* 8.35: *nec curare deum credis*. At line 5 of *GIC*, King informs his audience that, as they look at the wonders of the universe, they will see that a munificent god has taken care of it all: *munificum curare deum*. In his manuscript commentary on the *De Sphaera* written after he returned to Scotland in 1595, King states that he understands Buchanan to be attacking Epicurus when deploying *consilio*.¹³ King's use of Virgil here is an early example of a commentary (but in verse) on Buchanan's poem and its intellectual assumptions. He reanimates Buchanan's terse anti-Lucretian *consilio* through the more textually diffuse *munificum curare deum*. It is an arresting literary and intellectual flourish that brings depth and range to its conformity with Buchanan.

¹² This same passage from Manilius is reshaped and used by Buchanan in his paraphrase of Psalm 104 at lines 33–4; for King's awareness of Buchanan's use of Manilius in that poem, see *GIC* 51. For a modern edition of Buchanan, *Psalm* 104, see Green (2011).

¹³ MS DK.7.29, 1^v. King's commentary edition of the *De Sphaera* is an avowed philosophical, mathematical, and scientific text, focused upon the scientific/philosophical (not poetic) issues raised by Buchanan's poem. It was the main teaching manual for students of mathematics, astronomy, and physics at the University of Edinburgh for nearly two decades in the early seventeenth century. On evidence of its use as a manual, and its scientific significance, see note 30 below, McOmish (2018), and the forthcoming edition of Buchanan's *De Sphaera* (see note 10 above).

Through resurrection of partially-hidden sources and inclusion of verse corroboration from other areas of Latin literature, King has used his verses to make them seem to align broadly with Buchanan's arguments.

This particular passage also provides the artistic and philosophical springboard for his first major intellectual departure from Buchanan's opening. In *De Sphaera*, lines 11–14, Buchanan encourages his readers to acknowledge the divinity at work in the cosmos through a general inspection of the heavens and a recognition of the order in them. At lines 1–5, King too encourages his readers to regard the cosmos and its order (and be certain that God cares for it all—*curare deum*). However, an additional level of acknowledgment is required by King. *GIC* invites its audience to acknowledge (*agnoscas*, line 7) the sacrifices God made in creating the universe for our enjoyment. King identifies a particular time as the most effective in the temporal cycle for this to happen: 'lux ista quotannis' (line 5; 'that annual day'). In Buchanan, the act of acknowledgement (*agnoscat*) is prescribed after contemplation of the divinity of the cosmic structure. In King, the act of acknowledgement (*agnoscas*) is subsumed into an exhortation to reflect upon the sacrifices God, or, more specifically, Christ made for us. Lines 5–8 of *GIC* then suddenly break from the familiar natural philosophy of didactic poetry shared with Buchanan. This is seen most clearly at line 6, where King describes what thoughts the specific day should inspire: 'recolit pura *natum de virgine* numen' ('brings again to our mind the god born of a pure virgin'). King's text now moves into close engagement with liturgical Latin, and more specifically with the Eucharistic hymn *Ave Verum Corpus* ('Ave verum corpus, *natum de Maria Virgine*'). This hymn relates Christ's physical presence in the material universe and the sacrifices he made for humanity from birth. It was/is a central ceremonial element in Catholic mass.¹⁴ The prescribed day of cosmic contemplation in King's introduction, the 'yearly day' of line 5, is the ceremonial day set aside for the contemplation of Christ's birth and sacrifice: Christmas. In King's introduction, Buchanan's providential argument, with its ancillary support from Manilius, and its rejection of Lucretius, becomes an elaborate philosophical and artistic edifice for the promotion of Christmas.

King's decision to subsume Buchanan's core message into a pointed affirmation of Christmas takes us to the very heart of the inspiration for the entire poetic

¹⁴ King produced a Scots translation of Peter Canisius' Catholic Catechism in 1588. Fifteen pages of King's version were used to affirm the theological and ceremonial importance of the sacrament of the Eucharist (and the heretical nature of those who opposed it—King cites the 'heretical kirk', a reference to the Calvinist Church): cf. King, *Ane Catechisme or Schort Instruction of Christian Religion* (1588, pp. 74–89).

cycle of which *GIC* is a part (and provides additional evidence for the overall date of the poems). The poem is unlikely to have been composed before 1584, when the first editions of Buchanan's *De Sphaera* were published in Paris.¹⁵ The circumstantial evidence of the apparent chronological arrangement of the poetic *Sylvae* in the King MS DK.7.29 also suggests that a date of the mid-1580s is the most probable. At this time, King was working at the University of Paris. It was a period of particular tensions across the continent and in Britain. King was actively engaging with issues relating to the Reformation and Counter-Reformation. Evidence of his activities during 1584–87 can be found in his surviving vernacular writings, where he wrote to friends in Scotland to encourage them to embrace the Catholic Church.¹⁶ He also composed detailed calendars to help with the faithful (religious and astronomical) observance of feast days.¹⁷ To someone whose work promoted the keeping of feast days, developments in Scotland from 1584 onwards regarding the keeping of those days would have been particularly shocking. Across Scotland, the Scottish Reformed Church (which King frequently refers to as the 'pretendit hyretical kirk of Scotland' in both his catechism and letters) was issuing edicts through its church sessions that 'Yule time' was not to be kept anywhere, and that anyone keeping the festival should be dealt with by magistrates.¹⁸ King's poem can therefore be regarded as an important piece of living, breathing contemporary Counter-Reformation art, designed to push back against troubling developments.

King's religious output in the vernacular in the 1580s only focused upon the religious battle in Scotland, not the wider European Reformation with its linguistic boundaries. Why produce a substantial Counter-Reformation piece of literature in 'international' Latin for consumption only in Scotland? The answer lies in the Latin literary tradition that existed in Scotland in this period within a clearly-

15 See note 10 above.

16 King wrote a letter to his friend and former fellow student at St Leonard's College, St Andrews, Walter Dundas, encouraging him to help to reconcile fellow Scots to the Catholic Church. The letter is in National Records of Scotland (Register House), GD. 75/566. Durkan (2001, p. 199), reproduces part of the letter (but minus Walter Dundas's name).

17 See note 14 above for King's catechism. King also produced a calendar of feast days that prefaced his edition of the catechism. This set out all the feast days of the Christian (Catholic) Church for observance by the faithful.

18 From 1583 to 1588 a concerted effort was made by the Church of Scotland to stop the celebration of Christmas across the country. For an overview of the context to the kirk-session decrees and prosecution of carol-singers and 'Yule-bread' bakers, see Hutton (1996, pp. 25–7). In 1640, the Kirk successfully petitioned the Scottish Parliament to ban the festival by law, and it was reaffirmed only in 1712. It would not be until the latter 20th century that Christmas was celebrated as a public holiday again in Scotland (Hutton (1996, p. 121)).

defined intellectual community. A wealth of evidence exists from across Scotland's political, religious, and educational institutions from the mid-16th century onwards that a didactic literary culture pervaded and was remarkably influential.¹⁹ King James VI of Scotland was schooled in it, the ancient universities of Scotland used it to teach specialist subjects like mathematics and astronomy, and professionals from across Scotland had an international reputation for familiarity with the tradition.²⁰ King was intimately familiar with many of these figures (especially the Craig and Napier families).²¹ Walter Dundas, to whom King addressed an important letter, left a permanent reminder of his own familiarity with the Latin poetic, mathematic, and astronomical culture through his elaborate astronomical sundial fountain with poetic inscriptions at Dundas Castle.²² King's audience was the people in Scotland who shared the same cultural universe as him—and there were many. It was a shared culture that existed above and beyond religious and political differences within the kingdom.

An appreciation of this pervasive didactic literary culture among the college-educated in early-modern Scotland allows the reader to perceive with much greater clarity the significance of King's engagement and disengagement with Buchanan's sources. It also provides insight into the way in which progressive scientific discourse was conducted that would be otherwise hidden from view (and which contains yet more evidence of the date for this poem).

Another significant divergence from Buchanan's natural philosophy occurs at the very start of his poem, which is elaborated and intensified as the poem develops. The chief philosophical inspiration for King's inclusion of the pure light in heaven at line 1 is Buchanan's two lines: '... Tu qui fulgentia puro | lumine templa habitas, oculis impervia nostris' (5–6; '... You who inhabit the regions shining with pure light, impervious to our view'). In King, the heavens are not completely impervious to our view (King consistently rebukes Buchanan throughout his commentary for not practicing observational astronomy), nor, indeed, is the whole expanse of heaven (*templa*) the primary focus of our gaze: 'Eia age, qui puros caeli revolubilis ignes | aspicias immenso diffundere lumina mundo' ('Come now, you who see that the pure fires of the turning heavens spread out their light through the vast universe'). The stars are front and centre. King has chosen not

19 For the first detailed account of the ubiquity of the culture and some of its key features, see McOmish (2019).

20 On King James, the universities and the republic of letters, see McOmish (2016, pp. 45–55).

21 On King's close ties to the Napier and Craig families see McOmish (2016, pp. 62–6).

22 On Dundas, see note 16. On his sundial and fountain, cf. Glendinning et al. (1996, pp. 59–61).

to make an explicit reference here, as Buchanan does (see below), to the materialist/anti-materialist dialectic of Lucretius and Manilius.

Buchanan's description of the temples of heaven is ultimately taken from Lucretius, *DRN* 5.489–91: 'volabant | corpora multa vaporis et aeris, altaque caeli | densabant procul a terris fulgentia templa' ('those many bodies of heat and air [flew away], and on high far from the earth packed the shining regions of the sky'). Here Lucretius describes how the celestial regions are composed of variant admixtures of the same elements that make up the terrestrial regions.

One of the most striking rejections of the natural philosophy of these lines, which also reuses the same Lucretian terminology against its source, is Manilius, at *Astronomica* 5.726–9: 'tum conferta licet caeli fulgentia templa | cernere seminibus minimis totumque micare | stipatum stellis mundum' ('Then may one see heaven's shining temples teeming with minute points of light and the whole firmament sparkle with dense array of stars'). Manilius has swept away the fog and matter from Lucretius' decidedly matter-filled heavens, and has reused Lucretius' Epicurean atoms, his *semina*, as spots of light, as the stars.²³

In Buchanan, the uncorrupted nature of the heavens, and their general purity is emphasised with a rejection of a materialist passage taken from Lucretius, the rejection of which is also found in Manilius. Lucretius, *DRN* 5.480–508, the passage that contains the *fulgentia templa*, is the ultimate literary and philosophical point of reference for Buchanan's programme of natural philosophy laid out in the introduction to the *De Sphaera*. At lines 1.49–69, Buchanan presents a detailed development of his rejection of Lucretius here, which more clearly signposts its place within a series of well-known responses to the same passage. He replicates the content, and often the same specific diction from well-known rejections of *DRN* 5.480–508 found in Ovid, *Metamorphoses* 1.26–35 (at *De Sphaera* 1.53–4) and Manilius, *Astronomica* 1.149–70: see, especially, Manilius 1.149: 'ignis in aetherias volucer se sustulit oras' ('Winged fire soared aloft to ethereal reaches'), and *De Sphaera* 1.51: 'et volucrem campos super aeris ignem' ('and fire fluttering above the levels of the air'). Manilius' verse is his own reworking of Lucretius, *DRN* 5.458–9: 'erumpens primus se sustulit aether | ignifer et multos secum levis abstulit ignis' ('breaking out ... first fiery ether uplifted itself and lightly

²³ The reworking of Lucretian *semina* is as prevalent in early modern Scottish Latin didactic, as it had been for Virgil (see Farrington (1963)), Manilius, and Ovid (see next note). A well-developed example is found in a hexameter poem on procreation and anatomy by David Kinloch (*De hominis procreatione*, 1596), who matriculated in the same year as King at St Andrews, and latterly practised medicine in Nantes with King's younger brother Clement: cf. Ford (2018, p. xxix). Kinloch reworked Fracastoro's own reuse of Lucretian *semina*: see McOmish (2019).

drew with it quantities of fire').²⁴ This is a particularly involved example of Buchanan's awareness of his poem's place within a series of writers who had responded to Lucretius' materialist message.

King shows us at lines 20–1 of *GIC* that he was fully aware of Buchanan's place within this series of writers who had responded to Lucretius' universe, by refashioning Buchanan, *De Sphaera* 1.59–60 with these lines: '*tenues his aeris auras | supposit mediique leves per inania mundi*' ('And he set thin breezes of air under these, and he spread out the light air through the empty space of the world's middle zone'), which themselves directly reference Manilius, *Astronomica* 1.152–3: '*proximus in tenuis descendit spiritus auras | aeraque extendit medium per inania mundi*' ('Air next sank down to become the tenuous breezes and spread out the atmosphere midway through the empty spaces of the sky'). Surprisingly, given King's ostentatious presentation of his own awareness of the anti-Lucretian appropriation of Ovid and Manilius in Buchanan, he does not directly reference *DRN* 5.490–4. Instead, he ignores the key underlying message of Buchanan's materialist argument, and focuses his message upon emphasising the pure nature of the individual spots of light, and the unadulterated, uncorrupted nature of the stars and planetary bodies: the pure fires of heaven that spread out their lights across the universe.

The primary focus upon the purity of the stars and not the uncorrupted nature of the entire firmament is a literary choice that betrays an informed philosophical choice made by King. This can be seen most clearly in King's reworking of Buchanan's Lucretius/Manilius dialectic as the poem progresses. As Buchanan moves into a more detailed consideration of the heavens, he presents his reader with some astronomical 'facts':

... sed orbes
astriferi, et nitidi sublimis regia caeli,
immunis senii; et vultu immutabilis uno,
perpetuum servat solida et sincera tenorem

(*De Sphaera* 1.39–42)

... but the star-bearing spheres, and the sublime palace of bright heaven, immune to decay, and unchangeable in appearance, preserves its eternal course untainted and solid.

²⁴ See also Ovid, *Metamorphoses* 15.239–51. Gee (2009) provides an account of Buchanan's familiarity with Ovid's engagement with Lucretius.

King takes this passage from Buchanan and reworks it in several different ways. Firstly, another apparent show of conformity to the *De Sphaera* by King is articulated through an appeal to shared literary and philosophical heritage. The lines in *GIC* immediately following the ten-line introduction acknowledge the influence of Lucretius in Buchanan by incorporating Lucretian textual elements that Buchanan left out:

... nitidi tibi flammea caeli
moenia et immensi radiatos aetheris orbes
immunes senii, cursusque tenore sub uno
aeternos, certis accendere legibus ignes
iussit

(*GIC* 10–4)

He ordered that fires light up in fixed laws the fiery walls of glittering heaven for you, and the radiant globes of the vast firmament which are immune to decay, and their eternal courses under one direction.

The close correspondence in both Buchanan and King to the final line of the passage from Lucretius (*DRN* 5.508) mentioned above is immediately apparent. In Buchanan, Lucretius' description of atomic movement by analogy with the one-directional current of the Black Sea, 'unum labendi conservans usque tenorem' ('keeps ever one course of gliding movement'), becomes 'perpetuum servat solida et sincera tenorem' ('keeping an eternal direction/course, solid and unpolluted'). In *GIC*, the grammatical and syntactical relationship with Lucretius is less faithful, but it retains Lucretius' 'one direction' (*tenore sub uno*, *GIC* 12), which Buchanan does not. King's description of the heavens, like Buchanan's, articulates order and rejects chance, while using Lucretian diction to do so. The clarity of that rejection by King of the chance direction of travel for the atoms is if anything enhanced by his laconic redeployment of Lucretius' diction. Where Buchanan adds adjectives (*perpetuum*; *solida*; *sincera*) to a largely untouched Lucretian clause to make his anti-Lucretian point (that the heavens are unpolluted), King manipulates the semantic range of the Lucretian words, and subordinates them to his own words. The 'course' (*tenorem*) in Lucretius and Buchanan is rendered by the Latin term *cursus* in King and *tenorem* is recast to imply God's direction. The effect is a pleasing inversion of Lucretius' words that supports the central philosophical idea of divine design and order.

King's textual and intellectual conformity to Buchanan, however, marks another significant departure from Buchanan's text and intention, which was already signposted in his omission of *fulgentia templa*. The absence in King of any

reference to the adjectives *solida et sincera* to describe the composition of the heavens is key. The intellectual origins of King's refusal to use these adjectives have already been established in his recalibration of the subject of the clause that they condition in Buchanan: *sublimis regia caeli*. Buchanan describes the heavens as 'the sublime palace of bright heaven, immune to decay'. At first glance, *GIC* 10–2 is remarkably close to Buchanan 1.39–41. King provides an all-embracing articulation of the heavens, using familiar Buchanan diction (*nitidi ... caeli; immunes senii*). However, King replaces Buchanan's *sublimis regia*, the sublime palace (an implied abode of the gods/God), with *flammea ... moenia*, an obviously Lucretian phrase that Buchanan uses regularly as a straightforward description of the heavens.²⁵ This downgrade in celestial status from the sublime palace/regions (home of the divinity) sets the stage for a more significant alteration King makes to his engagement with this section of the *De Sphaera*. He replaces Buchanan's adjective *immunis* as an attribute of the whole firmament as one for individual stars and planets: *radiatos aetheris orbis* (the radiating globes in the ether). The move is a conspicuous disengagement with Buchanan, which mirrors King's focus on the stars in the first line of *GIC*, where King presents purity and incorruptibility as aspects of the stars, not the whole firmament. The rationale for King's decision not to redeploy Buchanan's *sincera* and *solida* now becomes clear: King is actively avoiding agreeing with the idea that the heavens are incorruptible and solid. The redeployment of *immunis* and the rejection of *sincera* and *solida* as aspects of celestial architecture are jarring departures from the *De Sphaera*.

What does King's studied manipulation of Buchanan's view of the material universe tell us? The omission, subtle recalibration, and textual sleight of hand show King taking the first tentative steps towards accepting an idea whose rejection is a central part of Buchanan's philosophical programme in the *De Sphaera*. Buchanan makes quite clear that he is delineating a heaven that is pure, untainted, incorruptible, and solid. It has been long-accepted that Buchanan's poem as published in 1585 represented at one level a response to the destabilising innovations in natural philosophical discourse that followed the publication of the work of Nicolaus Copernicus in 1543 and Tycho Brahe's later work in the 1570s.²⁶ Throughout his introduction, and while using Lucretius as a literary proxy, Buchanan reaffirms the idea that the heavens are made up of celestial

25 Cf. *flammantia moenia mundi* at Lucretius *DRN* 1.73 (and by extension *DRN* 5.450). King combines two passages from Buchanan to facilitate his picture: firstly, Buchanan's full appropriation of Lucretius at *De Sphaera* 1.11/1.74, and secondly lines 1.40–1.

26 See Naiden (1952, pp. 52–4 and 56–60).

spheres (*astriferi orbes*), that they are solid (*solida*), keep a non-degradable course (*perpetuum*), and are unpolluted by sublunary matter (*sincera*).

King's reluctance to reaffirm this is undoubtedly connected to another development in European intellectual culture from the middle of the 1580s. In 1585, Christoph Clavius, educationalist, mathematician and future head of astronomy at the Collegio Romano, published the third edition of his commentary on Johannes de Sacrobosco's astronomical text *de Sphaera Mundi*.²⁷ Clavius' commentaries had a profound influence both upon the way that King understood his subject matter and on how he framed his responses to it. His later commentary on Buchanan's *De Sphaera* mentioned above was in form and content heavily indebted to the Clavian commentary tradition (as were Galileo's commentaries and lectures from the same period).²⁸ Clavius' 1585 edition contained a new comment by its author on the comets of 1572 and 1577.²⁹ In this *digressio* Clavius states that the comets of 1572 and 1577 both appear to have been in the heavens above the moon, in the celestial regions—Buchanan's 'unchanging' region of the universe. In King's later commentary on Buchanan's *Sphaera*, in the section addressing Tycho Brahe's observations in *De Stella Nova*, King would state quite starkly that he could not support the doctrine of the solid, incorruptible celestial spheres in light of Clavius' and Brahe's views (supported, as he says, by both observation and mathematical truth).³⁰ He suggested that individual planets and stars in the heavens could still contain divine and unchanging elements, but did not offer an overarching philosophical template of it.³¹

The views of those who followed Clavius from the 1580s onward in exploring where the mathematical evidence led, no matter the consequences, have been described as 'cautiously progressive'.³² The introduction to *GIC* shows us someone who in form, philosophy, and radicalism falls into that category at an early

27 For Clavius' editions see Valleriani (2017, pp. 469–70). On Sacrobosco, cf. Thorndike (1949).

28 See Wallace (1981, pp. 200–17). See McOmish (2018) for discussion of the influence of Clavius on King, Galileo, and Kepler in an educational context.

29 Lattis (1994, pp. 147–50) discusses the changes in detail.

30 King lists the work of Brahe, Maestlin, Kepler, and Clavius as corroborating evidence: MS DK.7.29, 39^v–40^r. The passage following this is one of many from King's commentary that was memorised by astronomy students at Edinburgh in the early seventeenth century: see William King's 1624, *Theses Philosophicae*, 'Physicae propositio' 15.2.

31 Russell (1974, p. 125), misinterpreted this passage when he encountered it in William King's *Theses*, unaware, firstly, that it was written by Adam King, and consequently unaware of Adam King's rejection of celestial spheres and citation of Brahe and Clavius (which were not included in the published *Theses*).

32 Donahue (1975, p. 260).

stage of its progression. The fascinating manipulation of a source's sources in this poem allows us to see how a prominent European intellectual framed a vital contemporary development within the context of Latin literary and intellectual culture, stretching back through several authors and across many generations.