#### **Nicholas Campion**

Abstract. This paper explores *Harmonice Mundi* as a political text and considers the influence on Kepler of the French political theorist Jean Bodin (1530–1596). Both Bodin and Kepler subscribed to the political cosmology inherited from Plato, Aristotle and the Stoics, and elaborated in detail by Claudius Ptolemy, in which the terrestrial state was part of a wider entity including the celestial spheres and the use of the planets to identify changes in the quality of time and fluctuations in natural influences. Both sought to remedy failures in contemporary astrology and create a new and empirical discipline which could avert future crises by predicting them. The paper examines Bodin's theories and then locates the work of both him and Kepler as attempts to establish ways to create stability in the unstable politics of the post-Reformation era, and contextualises Kepler's attempts to delineate the perfect state as utopian.

#### Introduction

Johannes Kepler's *Harmonice Mundi*, published in 1619, in the wake of the schism between Roman Catholic and Protestant Christianity, is an attempt to describe the perfect Republic, the origins of which lie in a series of Platonic dialogues, chiefly the *Republic*, *Timaeus* and *Laws*. It is well known that Plato was deeply dissatisfied with the politics of his time, and this drove his proposals for the construction of the ideal society, which can be described as utopian. Kepler lived at a time when we might say, to use a modern phrase, for many people politics was 'broken'. The schism in

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<sup>&</sup>lt;sup>1</sup> Plato, *Republic*, 2 vols., trans. Paul Shorey (Cambridge, MA, and London: Harvard University Press, 1935); Plato, *Laws*, 2 Vols, trans. R.G. Bury (Cambridge, MA, and London: Harvard University Press 1934); Plato, *Timaeus*, trans. R.G. Bury (Cambridge, MA, and London: Harvard University Press, 1931); John Carey, ed., *The Faber Book of Utopias* (London: Faber and Faber, 1999).

<sup>&</sup>lt;sup>2</sup> Christopher Bobonich, *Plato's Utopia Recast: His Later Ethics and Politics*. (Oxford: Clarendon Press, 2002).

<sup>&</sup>lt;sup>3</sup> David Gauke, 'Why British politics is broken', The New Statesman, 29 June 2022

western Christendom was no less intense in 1619 than it had been a century earlier in 1517, when Martin Luther initiated the Reformation, as the gathering pace of Counter-Reformation maintained the geopolitical and ideological war between Protestants and Catholics.

The term utopia itself originated in Thomas More's account of the ideal republic, published in 1516, coincidentally the year before Martin Luther initiated the Reformation, perhaps the grandest attempt ever to reform the politics of Western Europe.<sup>4</sup> More's work is no dreamy fantasy, but a vehicle for discussing the practicalities of different political systems, and was partly a response to Plato.<sup>5</sup> Yet the word utopia has achieved a persona beyond anything that More intended. It may exist in the past as a lost golden age, or in the future as an aspiration, as what we might call an 'ontology of the not yet', in Peter Thompson's words, a knowledge of the unknown.<sup>6</sup> In a narrow sense a utopia is a perfect society which may inspire humanity to self-improvement but, being perfect, is by definition impossible to achieve. If human beings are imperfect, then no human society can ever be perfect. In its absolute sense, the utopian project is doomed before it even starts. As a matter of principle, if the promised utopia is perfect, in extreme cases it will be impossible to realise. As

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https://www.newstatesman.com/comment/2022/06/david-gauke-why-britishpolitics-is-broken [accessed 12 December 2022]; Benedict Macon-Cooney, 'Politics is completely broken. It's time to reimagine the state', Wired, 16 January 2020, https://www.wired.co.uk/article/governments-power-people-state [accessed 12 December 2022]; Thomas Levergood, The U.S. political system is broken. How can we fix it?, America: The Jesuit Review, 9 September 2020, https://www.americamagazine.org/faith/2020/08/28/us-government-brokenrepublican-democrat [accessed 12 December 2022]; Debating Europe, 'Is the broken beyond repair?', Started 04/12/2015, European Union https://www.debatingeurope.eu/2015/12/04/european-unionfailed/#.Y5WypHbP23A [accessed 12 December 2022].

<sup>&</sup>lt;sup>4</sup> Thomas More, *Utopia* (London: Penguin, 1965), Book 1, p.67.

<sup>&</sup>lt;sup>5</sup> James Steinrager, 'Plato and More's "Utopia", *Social Research* 36, no. 3, The New School (1969): pp.357–72; John A. Gueguen, 'Reading More's "Utopia" as a Criticism of Plato', *Albion: A Quarterly Journal Concerned with British Studies*. 10, The North American Conference on British Studies (1978): pp.43–54.

<sup>&</sup>lt;sup>6</sup> Peter Thompson, 'Religion, Utopia and the Metaphysics of Contingency', in *The Privatization of Hope: Ernst Bloch and the Future of Utopia*, *SIC 8*, Vol. 8, ed. Peter Thompson and Slavoj Žižek (London: Duke University Press, 2013), p.82.

Herbert Marcuse wrote, 'Utopia... refers to projects for change that are considered impossible'.<sup>7</sup>

A principal aim of the *Harmonice Mundi* was to establish a model for the harmonious function of human society by reference to the principles of Harmony which, in turn, constituted the fundamental layer of psychic and physical existence in the universe. Kepler's worldview was entirely based on classical Greek scheme political cosmology, as expressed chiefly by Plato and Aristotle, which was to consider the correct functioning of human affairs by reference to universal laws.<sup>8</sup> The *Harmonice Mundi* can therefore be read as a political text. It is broadly utopian, in that it seeks to describe a perfect society or, at least, the best society imaginable. For Kepler, the classical notion of the cosmos as a single whole had significant consequences in that, if all things are governed by harmonic law, those things include people and planets, and therefore the movement of the planets indicates the parallel and related movements of people. This is why Kepler devoted Book IV of *Harmonice Mundi* to his reformed and modernised system of astrology.

The key feature of astrology is relationality: the doctrine that everything in the universe exists in relation to everything else. As Cleomedes wrote, 'all individual entities are created in relation to something else; and, finally, the fact that everything in the cosmos renders very beneficial services'. The concept of relationality pervades Kepler's political cosmology. These relationships may be intimate or distant, and they may be sympathetic or antagonistic, but in Kepler's astrological theory they are real and useful, providing opportunities to anticipate, and therefore amend, the future.

Relationality itself is central to the notion of harmony in which all parts of the universe operate in balance with all other parts, thereby ensuring its continual functioning. As Crystal Addey put it, in Platonic theory, 'there is no gap, break or vacuum in the order of reality: the gods and intelligible realities permeate everything in the universe and produce a single continuity and harmony between all, including causing Earth to be joined

<sup>&</sup>lt;sup>7</sup> Herbert Marcuse, *Five Lectures: Psychoanalysis, Politics, and Utopia* (Harmondsworth: Penguin, 1970), p.63.

<sup>&</sup>lt;sup>8</sup> Ernest Barker, *Greek Political Theory* (London: Methuen and Company, 1960 [1918]; Ernest Barker, *The Political Thought of Plato and Aristotle* (New York: Dover, 1959).

<sup>&</sup>lt;sup>9</sup> Cleomedes, 'On the Heavens', 1.3.3, 1.3.11 in *Cleomedes' Lectures on Astronomy*, trans. Alan C. Bowen and Robert B. Todd (Berkeley and Los Angeles, CA: University of California Press, 2004).

to heaven'. Boethius, who Kepler cites at the end of Book IV, wrote of Harmony as the regularity and balance which is the embodiment of universal order:

The world in constant change Maintains a harmony, And elements keep peace Whose nature is to clash. The Sun in car of gold Draws force the rosy day, And evening brings the night When Luna holds her sway. The tides in limits fixed Confine the greedy sea; No waves shall overflow The rolling field and lea. 11

Medieval and Renaissance astrology depended on five distinct narratives. First, the scriptural claim that the heavens reveal the glory of God and function as 'signs and seasons', indicating the flow of events on Earth;<sup>12</sup> second was the Pythagorean notion of a cosmos in which planets and people obey a single set of geometrical and mathematical laws, a view to which Plato also subscribed;<sup>13</sup> third, the Platonic theory that the movement of the heavenly bodies indicates the manifestation of the Ideas or, later, archetypes, emerging from the demiurge, or nous, the creating consciousness, in terrestrial affairs;<sup>14</sup> fourth, the Aristotelian concept of physical influences in which the heavenly bodies through their own nature

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<sup>&</sup>lt;sup>10</sup> Crystal Addey, 'The Connected Cosmos: Harmony, Cosmology and Theurgy in Neoplatonism' in Nicholas Campion, ed., *The Harmony Debates: Exploring a a practical philosophy for a sustainable future* (Lampeter: Sophia Centre Press, 2020), pp.135–52 (pp.149–50).

<sup>&</sup>lt;sup>11</sup> Boethius, *The Consolation of Philosophy*, trans. V.E. Watts (Harmondsworth, Middlesex: Penguin, 1981 [1969]), p.77; Johannes Kepler, *The Harmony of the World*, trans. E.J. Aiton, A.M. Duncan, J.V. Field (Philadelphia, PA: American Philosophical Society, 1997), p.385.

<sup>&</sup>lt;sup>12</sup> Genesis I.14.

<sup>&</sup>lt;sup>13</sup> Kenneth Guthrie, *The Pythagorean Sourcebook and Library* (Grand Rapids, MI: Phanes Press, 1987), pp.137–40

<sup>&</sup>lt;sup>14</sup> Plato, *Timaeus*, trans. R. G. Bury (Cambridge, MA, and London: Harvard University Press, 1931), 47C.

(whether moist or dry and hot or cold) influence physical and psychological temperaments on Earth;<sup>15</sup> and fifth, Stoic physics in which all things, included people and planets, are linked by sympathies.<sup>16</sup> As such, astrology could provide a universal solution to all human concerns, ranging across a complete spectrum, from weather forecasting to the salvation of one's soul. It had a particular appeal to political and military leaders in that it could offer personal advantage in the sense that to know the future meant that one could gain an advantage over one's enemies in the present, as in the casting of horoscopes to judge the most auspicious time to lay siege to a city.<sup>17</sup> When applied to politics, astrology and its underpinning theories constitute what we may call a 'political cosmology', in which the political purpose of astronomy was the preservation of order through management of the wider cosmological environment.<sup>18</sup>

The credibility of the complex horoscopic astrology of the Medieval world had suffered from a series of high profile predictive failures in the late fifteenth and early sixteenth centuries. Notable examples included the prediction associating the Day of Judgement with the conjunction of Jupiter and the malefic planets Saturn and Mars in November 1484, and the forecast of a Biblical deluge, based on the conjunction of Jupiter and Saturn in Pisces in 1524.<sup>19</sup> These resulted in high-profile attacks on

<sup>&</sup>lt;sup>15</sup> Aristotle, *Meteorologica*, trans. H. D. P. Lee (Cambridge, MA, and London: Harvard University Press, 1937), 339a,19-24.

<sup>&</sup>lt;sup>16</sup> Diogenes Laertius, 'Zeno', in *Lives of Eminent Philosophers*, trans R.D. Hicks (London: William Heinemann, 1925), vol. 2, VII.140, pp.110–263:

<sup>17</sup> Guido Bonatti, 'Tractatus Sextus', trans. Robert Zoller; Robert Zoller, 'The Astrologer as Military Advisor in the Middle Ages and Renaissance', Part 2, *Astrology Quarterly* 63, no. 1 (Winter - December) 1992): chap. XXII, pp.15–25; Part 3, *Astrology Quarterly* 63, no. 2 (Spring 1993): chaps XXII-XXVIII, pp.35–45; Part 4, *Astrology Quarterly* 63, no. (Summer 1993): chaps XXIX-XXX, pp.16–22.

<sup>&</sup>lt;sup>18</sup> Nicholas Campion, 'Astrological Historiography in the Renaissance' in Annabella Kitson, ed., *History and Astrology: Urania and Clio Confer* (London: Unwin Paperbacks, 1989).

<sup>&</sup>lt;sup>19</sup> For the prediction of 1484, see Jürgen G.H Hoppmann, 'The Lichtenberger Prophecy and Melanchthon's Horoscope for Luther', *Culture and Cosmos* (Autumn/Winter 1997): pp.49–59; Dietrich Kurze, 'Popular Astrology and Prophecy in the fifteenth and sixteenth centuries', in Paola Zambelli, *Astrologi hallucinati: Stars and the End of the World in Luther's Time* (Berlin and New York: Walter de Gruyter 1986), pp.173–93; and for the prediction of 1524 see Lynn Thorndike, *History of Magic and Experimental Science*, 8 vols (New York: Columbia University Press, 1923–58), Vol. V, Chapter 11.

astrology's credibility from both conservative Christian and humanist quarters, attacks to which astrology was obliged to respond. The Humanist philosopher Pico della Mirandola did not mince his words when he denounced astrology as 'the most infectious of all frauds ... it weakens religion, begets or strengthens superstition, encourages idolatry, destroys prudence, pollutes morality, defames heaven, and makes men unhappy'. The response to these attacks ranged from defensiveness, to attempts to reform astrology by either rejecting so-called Arabic interpretive systems while keeping the basis in Hellenistic horoscopic astrology, to rejecting the entire interpretive scheme of Medieval astrology and constructing instead an entirely new astrology from first principles. 21

There were also wider political contexts. In the sixteenth century, political theorists began to consider the concept and nature of the state itself, independent of the institution of monarchy, a development arising directly out of Renaissance humanism.<sup>22</sup> The interests of the monarch were no longer necessarily identical to the welfare of the state, which might now be considered separately. The question became not 'How can astrology help with a war for the benefit of a ruler or dynasty?' but 'How can it promote peace in the interests of common welfare?' And, to be helpful, astrology has to be accurate. Therefore, accuracy had to precede utility, and for astrology to be of benefit it had to have a demonstrable and measurable objective existence.

Kepler himself responded to attacks on astrology's credibility by proposing that almost all of its traditional interpretative techniques should be abandoned and a new astrology developed on the basis of empirical observation.<sup>23</sup> In this aim he was profoundly influenced by the French

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<sup>&</sup>lt;sup>20</sup> Cited in Wayne Shumaker, *The Occult Sciences in the Renaissance: A Study in Intellectual Patterns* (Berkeley and Los Angeles, CA, and London: University of California Press, 1972), pp.18–19.

<sup>&</sup>lt;sup>21</sup> Remo Catani, 'The Polemics on Astrology 1489-1524', *Culture and Cosmos* 3, no. 2 (Autumn/Winter 1999): pp.16–31; Patrick Curry, *Prophecy and Power: Astrology in Early Modern England* (Oxford: Polity Press, 1989).

<sup>&</sup>lt;sup>22</sup> Ernst Cassirer, *The Individual and Cosmos in Renaissance Philosophy*, trans. M. Domandi (New York: Harper & Row, 1963), and *The Myth of the State* (New Haven, CT, and London: Yale University Press, 1967).

<sup>&</sup>lt;sup>23</sup> The two most important recent studies of Kepler's astrology are Patrick J. Boner, Kepler's Cosmological Synthesis: Astrology, Mechanism and the Soul (Leiden: Brill, 2013); Aviva Rothman, The Pursuit of Harmony: Kepler on Cosmos, Confession, and Community (Chicago, IL: University of Chicago Press, 2017) and Aviva Rothman, The Pursuit of Harmony: Kepler on Cosmos, Confession, and

political theorist, Jean Bodin (1530-96), who he quoted extensively, although not always in agreement.<sup>24</sup> Aviva Rothman points out that Bodin was a student of Petrus Ramus, the humanist and educational reformer, who 'taught that in all fields of study one needed to look at the undifferentiated data, organise it carefully and appropriately, and extract universals from particulars'.<sup>25</sup> Kepler and Bodin shared the belief that, modernised and purged of its medieval dogma, astrology offered a valuable tool for managing the state and preserving political order. However, they both held to a medieval cosmology in which God's divine will could be communicated to terrestrial authorities via the stellar and planetary spheres.

During the Renaissance, astrology adopted a style which Eugenio Garin described as constituting a 'precise philosophy of history based on a conception of the universe and characterised by a consistent naturalism and a rigid determinism'.<sup>26</sup> He elaborated on this proposition:

On the practical level the acceptance of such a [deterministic and naturalistic] doctrine brings with it the attempt at an exact reading of the heavens to foresee the fates which awaits us, although one was always uncertain what are some kind of escape would be opened to man into the area free from the contingencies which occur under the moon. The wisest of men is, then, he who reads human history in the stars; and some people hold that, precisely because the knowledgeable

Community (Chicago, IL: University of Chicago Press, 2017). See also Judith Field, Kepler's Geometrical Cosmology (London: Athlone, 1988). Important articles include Nicholas Campion, 'Johannes' Kepler's Political Cosmology, Psychological Astrology and the Archaeology of Knowledge in the Seventeenth Century', Mediterranean Archaeology & Archaeometry (forthcoming); J. V. Field, 'A Lutheran Astrologer: Johannes Kepler', Archive for History of Exact Sciences 31, no. 3 (1984): pp.189–272; Judith Field, 'Astrology in Kepler's Cosmology', in Patrick Curry, Astrology, Science and Society (Woodbridge, Suffolk: Polity Press, 1987), pp.143–70; and Nick Kollerstrom, 'Kepler's Belief in Astrology', in Kitson, ed., History and Astrology, pp.152–70. The most important collection of primary sources is Dorian Gieseler Greenbaum, ed., 'Kepler's Astrology', Culture and Cosmos 12, no. 1 and 2 (Spring/Summer and Autumn/Winter 2010).

<sup>&</sup>lt;sup>24</sup> Kepler, *Harmony of the World*, pp.255–78.

<sup>&</sup>lt;sup>25</sup> Rothman, *Pursuit of Harmony*, pp.204–5.

<sup>&</sup>lt;sup>26</sup> Eugenio Garin, *Astrology in the Renaissance* (London: Routledge & Kegan Paul, 1983), p.16.

astrologer truly interprets the ways of the stars he, and only he, can establish that operative magic which allows one by making use of the game of the heavenly configurations, to escape their harmful consequences.<sup>27</sup>

The coexistence of determinism with free will is now known as compatibilism: the existence of the one is quite compatible with the existence of the other.<sup>28</sup> In this case free will was to be achieved through 'operative magic'. For Garin this referred to the use of astrological images by the Renaissance philosopher Marsilio Ficino (1433-1499), the purpose of which was to heal the individual by bringing their soul into harmony with the cosmos.<sup>29</sup> Such magic relied on natural sympathies, as imagined by the Stoics, and so, while magical it was clearly also naturalistic, there being no boundary between the natural and the magical.<sup>30</sup> Garin's proposition was extended by Keith Thomas, who argued that 'During the Italian Renaissance astrological doctrines about the recurrence of planetary conjunctions and their influence upon the course of affairs had helped to form the concept of a historical period'. 31 Astrology was intended to explicitly change the future, but only one who has acquired wisdom is fit to do so. This, of course, is the theory embodied in the statement the pseudo-Ptolemaic Centoloquium that, 'A judicious man helps forward the celestial operations, even as the discreet husband-man assists nature in his ploughing and preparing the ground'. 32 The astrologer does not stand

<sup>&</sup>lt;sup>27</sup> Garin, Astrology in the Renaissance, p.16.

<sup>&</sup>lt;sup>28</sup> Michael McKenna and D. Justin Coates, "Compatibilism", *The Stanford Encyclopedia of Philosophy* (Fall 2021 Edition), ed. Edward N. Zalta, <a href="https://plato.stanford.edu/archives/fall2021/entries/compatibilism/">https://plato.stanford.edu/archives/fall2021/entries/compatibilism/</a> [accessed 11 December 2022].

<sup>&</sup>lt;sup>29</sup> Marsilio Ficino, *Three Books on Life*, ed. Carole C. Kaske and John R. Clark (Binghamton, NY: Center for Medieval and Early Renaissance Studies, State University of New York at Binghamton, 1989); Angela Voss, 'The Music of the Spheres: Marsilio Ficino and Renaissance Harmonia', *Culture and Cosmos* 2, no. 2 (Autumn/Winter 1998): pp.16–38; Julia Cleve, 'Ficino's Approach to Astrology as Reflected in Book VII of his Letters', *Culture and Cosmos* 7, no. 2 (Autumn/Winter 2003): pp.63–70.

<sup>&</sup>lt;sup>30</sup> A.A. Long, *Stoic Studies* (Cambridge: Cambridge University Press, 1996).

<sup>&</sup>lt;sup>31</sup> Keith Thomas, *Religion and the Decline of Magic* (Oxford: Oxford University Press, 1971), p.386.

<sup>&</sup>lt;sup>32</sup> Claudius Ptolemy, 'Centiloquium', in John Partridge, Mikropanastron, or an Astrological Vade Mecum, briefly Teaching the whole Art of Astrology – viz.,

outside the system, though, but is embedded within it: Garin continues, discussing Ficino's concept of harmony:

Man the microcosm, that is, must adapt himself to the microcosm through the technique of images, he must synthesise himself and so realise perfect harmony by identifying himself with the life and with the power of everything.<sup>33</sup>

While Ficino's prescription for a better society prioritised the individual and the soul, the reform programme set out by Bodin and Kepler focused on the state and society.

#### Jean Bodin: life and work

To understand Kepler's cosmic state, his concept of the way in which the state operates as part of the cosmos, we have to equally understand Bodin's cosmology. Jean Bodin published his first major work, the Method ad Facilem Historarum Cognitionem, a volume whose purpose is made clear in English translation: The Method for the Easy Comprehension of History, in 1566, He followed this in 1568 with a contribution to economic debate, the Reponse aux paradoxes de M. de Malestroicht, touchant le fait des monnaies et l'encherissement de toutes choses. In 1576 he published his great work on political theory, The Six Books of the Commonwealth, commonly known as the *Republic*, which is how I will refer to it in the text. The book was immensely influential and ten editions appeared during his lifetime, followed by an expanded Latin version in 1586, which itself ran to a further two editions. His last major work, De la Demonomanie des Sorciers, the highly influential denunciation of witchcraft and neo-Platonic and Hermetic magic, and so of the tradition exemplified at its most sophisticated by Ficino, appeared in 1580. In 1594 he published an attempt to describe the universal system of nature, the *Novum Theatrum Naturae*, while the unpublished Heptaplomeres was a search for the principles of universal religion. Bodin's cosmology was concerned with the quest for universal truth in both belief and the organisation of society, together with the understanding of history as a manifestation of cosmic order..

Questions, Nativities, with all its parts, and the whole Doctrine of Elections never so comprised nor compiled before, &c. (London: William Bromwich, 1679), pp.305–21, para 8.

<sup>&</sup>lt;sup>33</sup> Garin, Astrology in the Renaissance, p.76.

Bodin's enduring reputation was established by Pierre Bayle, who in 1697 described him as 'one of the most learned men that were in France in the XVIth century'. In 1946 G. R. Collingwood enthusiastically described him as a principal figure in the Renaissance humanist revolution, whose 'positive fruits ... were found first of all in a great clearing away of what had been fanciful and ill-founded medieval historiography'. Frances Yates wrote that the logic of Bodin's attack on the Hermetic cosmology espoused by Ficino, 'cut at the root of Renaissance magic with all its religious and cultural associations. Arthur Marwick saw him as 'The great theorist of historical study ... who declared the subject to be both of intellectual interest and pragmatic value for morals and politics: if studied carefully, he maintained, history did manifest certain orderly principles'. J. W. Allen considered that,

Bodin's claims to special honour consists, I think, in the fact that almost alone among sixteenth century thinkers, he made an honest attempt to construct a comprehensive theory of political society. All that we are rationally entitled to demand of such a system is that it should be coherent and intelligible and that it should not ignore or distort indisputable facts.<sup>38</sup>

A standard historiographical model of the time, popular amongst German Protestants, was the belief that history is divided into four phases, followed by a fifth, final era, the kingdom of God, a model based on the famous

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<sup>&</sup>lt;sup>34</sup> Pierre Bayle, *An Historical and Critical Dictionary*, Vol. 1 (London: Hunt & Clark, 1826), p.651.

<sup>&</sup>lt;sup>35</sup> R. G. Collingwood, *The Idea of History* (Oxford: Clarendon Press, 1946), p.57.
<sup>36</sup> Frances Yates, *The Occult Philosophy in the Elizabethan Age* (London: Routledge and Kegan Paul, 1979), p.71. Bodin's attack was published in his *De la Demonomanie des Sorciers*. For a full account see Christopher Baxter, 'Jean Bodin's De la Demonomanie des Sorciers', in Sydney Anglo, ed., *The Damned Art, Essays in the Literature of Witchcraft* (London: Routledge, 1977). Yates also noted that to be a *politique* could result in charges of magic or sympathy to magic: see Francis Yates, *The Rosicrucian Enlightenment* (London: Routledge, 1972), p.110.

<sup>&</sup>lt;sup>37</sup> Arthur Marwick, *The Nature of History* (London: Macmillan, 1973), p.30. <sup>38</sup> J. W. Allen, 'Jean Bodin', in F. J. C. Hearnshaw, ed., *The Social and Political Ideas of Some Great Thinkers of the Sixteenth and Seventeenth Centuries* (London: G.G. Harrap & Co., 1926), pp.44–5.

dream of the prophet Daniel.<sup>39</sup> According to Tooley, Bodin's attack on this theory in Chapter 7 of the Method is what marks him out as the father of modern critical historical thought; further, his dismissal of the traditional idea of the degeneration of humanity through successive epochs down to the current age, originally set out in Hesiod's eighth century BCE Works and Days, contributed to the emergence of the opposite idea, that humanity improves through time, or what later came to be known as progress. 40 Yet, while Bodin criticised both Ptolemaic astrology and Hermetic magic, he wanted to reform astrology, not abandon it. For this reason, he has also been subject to severe criticism. His first critic was his admirer, Pierre Bayle, who tempered his earlier, flattering judgement with the opinion that Bodin was 'a credulous man and infatuated with astrology': Halbronn considers that Bayle did not even consider Bodin a 'sincere critic' of astrology. 41 It would be much safer to call Bodin a critic, not of astrology but of other astrologers. In Bayle's view, if Bodin had been genuinely critical of astrology, he would have rejected it in its entirety rather than preserving part of it. Pierre Bayle gave a flavour of what he saw as Bodin's astrology, attributing to him the opinion that:

Comets are spirits who, having liv'd innumerable Ages on Earth, and being at last come nearer Death, celebrate their last Triumph, or are brought again into the Firmament as shining stars. This is attended with Famine and Pestilence etc. because the Cities, and the People lose the Governours who appeased the Wrath of God.<sup>42</sup>

Bayle was not sure how to interpret this belief, suggesting that perhaps Bodin was referring to dying angels rather than human spirits. J. W. Allen, also generally an admirer, remarked that in the *Republic* Bodin 'interlards the discussion with lengthy disquisitions on astrology and the magic that

<sup>&</sup>lt;sup>39</sup> 'Daniel', chapters 2 and 7.

<sup>&</sup>lt;sup>40</sup> See Jean Bodin, *Six Books of the Commonwealth*, p.99. See Hesiod *The Homeric Hymns and Homerica, including 'Works and Days' and 'Theogonis'*, trans. Hugh G. Evelyn-White, (Cambridge, MA: Harvard University Press, 1917); for progress theory see J.B. Bury, *The Idea of Progress: An Inquiry into its Growth and Origins* (London: MacMillan, 1932).

<sup>&</sup>lt;sup>41</sup> Jacques Halbronn, 'The Revealing Process of Translation and Criticism in the History of Astrology', in Curry, ed., *Astrology, Science and Society* (Woodbridge: Boydell, 1987), p.211 citing Bayle, *Dictionary*.

<sup>&</sup>lt;sup>42</sup> Bayle, *Dictionary*, citing Bodin, *Theatro Natura*, Book 2, pp.221–2.

is hidden in numbers', taking this as evidence of deep confusion on Bodin's part.<sup>43</sup> M. J. Harman substituted abuse for argument, commenting that Bodin's theory of climatic and geographic influences 'is of course absurd: but it does not require much perception to see in it the ancestor thought of some much more modern asininities'.<sup>44</sup> M. J. Tooley, the translator of the 1955 edition of the *Republic* actually excluded the astrological chapter, one of five out of forty-three chapters to be left out.

Bodin's work was an intellectual bridge between the medieval and modern worlds. As Charles Webster showed, the notion of a break between medieval and modern thought is a fiction: rather, most major thinkers, including the great astronomers from Copernicus to Newton, occupied transitional roles as medieval through took centuries to emerge into modern. <sup>45</sup> Frank E. Manuel eloquently summed up Bodin's role as the link between the ancient and modern worlds, describing him as one of the 'heirs to a great astrological tradition and contemporary witnesses of an astronomical revolution and the proliferation of a host of numerological theories (and) understandably curious about the relationship between the cycle of the nations and more measurable and objective scientific cycles in nature'.22 Bodin's modernism was inextricably linked with his medievalism and, in order to understand his own world, his position as a founder of modern critical historical thought and political theory cannot be separated from his attempt to reform astrology, which he envisaged as an attempt to understand the correlation of significant terrestrial events with equally significant celestial events.

#### **Bodin: political theory and activism**

Bodin's goal was to discover the secret of stability in a politically unstable world, an ambition prompted by his experience of the uncertain times in which he lived. He was seventeen when Francis II came to power and persecution of Protestants began in France. The wars of religion broke out in 1562, four years before the publication of the *Method*, and the *Republic* itself was written during the midst of civil war. Indeed, peace was only restored by the Edict of Nantes in 1598, two years after Bodin's death. As

<sup>&</sup>lt;sup>43</sup> Allen, 'Jean Bodin', p.45.

<sup>&</sup>lt;sup>44</sup> Mont Judd Harmon, *Political Thought from Plato to the Present* (New York: McGraw-Hill, 1964), p.209. Harmon identifies Bodin as an ancestor of nineteenth and twentieth-century racism.

<sup>&</sup>lt;sup>45</sup> Charles Webster, From Paracelsus to Newton: Magic and the Making of Modern Science (Cambridge: Cambridge University Press, 1982).

a witness to the destructive impact of political faction on the state, Bodin set out to establish the system of law, economy and political rights and duties which were essential to the smooth running of a just society. In so doing he is credited with the creation of modern jurisprudence, political economy, the theory of absolute monarchy and, paradoxically, the concept of a state founded on a community of people, rather than on monarchical power, and governed partly by attention to individual political rights. In the French politics of the time, Jean Bodin was at first actively identified with the *politiques*, the pragmatists who believed that the function of the state was to maintain order and to only interfere in matters of faith if political stability was threatened.<sup>46</sup> Much of his work arises out of the issues facing people such as him who wished to follow the dictates of their conscience without necessarily confronting the state. He demanded little more of the state than that it allowed both him and other dissenters the right to adhere to their individual beliefs. In Tooley's view:

His French environment, and his sympathy with the party of the *politiques*, probably helped Bodin to recognise where the new centre of gravity late. He no longer talks about the temporal and spiritual powers, the church and the secular ruler, but about the Commonwealth, la *république*. Moreover he described it with what was recognised to be such insight into its essential character, that all but the simplest political thinkers that came after him, whether they agreed with him or not, thought and wrote not about the powers that be, but the political community as such, and in terms used by him.<sup>47</sup>

<sup>&</sup>lt;sup>46</sup> Jean-Charles Darmon, 'Questionnements sceptiques et politiques de la fable : les « autres mondes du libertanage érudit', in John Christian Laursen and Gianni Paganini, eds, *Skepticism and Political Thought in the Seventeenth and Eighteenth Centuries* (Toronto: University of Toronto Press, 2015), pp.83–112.

<sup>&</sup>lt;sup>47</sup> Jean Bodin, *Six Books of the Commonwealth*, abridged and trans. M. J. Tooley (Oxford: Basil Blackwell, 1955), Introduction, p.xv. For a summary of Bodin's political thought see Roger Scruton, *Dictionary of Political Thought* (London: Palgrave Macmillan, 1982), p.42. See also Laurence C. Wanlass, *Gettell's History of Political Thought*, 2<sup>nd</sup> edn (London: G. Allen & Unwin, 1953), p.183; J.S. McClelland, *A Study of Western Political Thought* (London: Routledge, 1966), pp.281–4; Frank E. Manuel, *Shapes of Philosophical History* (Stanford, CA: Stanford University Press, 1965), pp.57–60; Tooley, Introduction, in Jean Bodin, *The Six Books of the Commonwealth*. For a more detailed analysis see Julian H. Franklin, *Jean Bodin and the Sixteenth Century Revolution in the Methodology of Law and History* (London and New York: Columbia University Press, 1963);

Bodin was one of a group of sixteenth and seventeenth-century French historians (including Melchior Cano and François Baudouin) whose work represented a substantial move towards a modern critical approach to history. 48 The study of history, he wrote, is intended to prevent the repetition of mistakes which recurred as a result of cyclical patterns in time: action was everything and nature could be left to the philosophers and the divine to theologians. 49 His plan was nothing less than to change the behaviour of humanity.<sup>50</sup> He shifted the question posed of the location of authority in the state, as Tooley put it, from 'who are the rulers and what are their powers?' to 'what is a state and how is it constructed?'51 Bodin's chief concern was sovereignty, the question of where political authority lay, if no longer in the person of the Feudal king or aristocrat: rather, the origin of the polity, he argued, is either in family or people. i.e., in either monarchy or commonwealth.<sup>52</sup> Bearing in mind the instability of French politics of the time, Bodin was preoccupied with the nature of change between types of commonwealth, a topic of particular concern because change creates instability and instability, as the French wars of religion demonstrated, is dangerous: it is disharmonious. In Bodin's new dispensation, stability could be preserved if the absolute power of the monarch was balanced by the protection of minority rights. In this context, Bodin was also an activist: he took the chance to argue for toleration as a member of the Estates General at Blois in 1576 where he made a number of recommendations, including a passionate plea for negotiation to end the religious wars which had torn the country apart since 1562.

Bodin's reform of the state was to be accomplished within the framework of a reformed and rigorous political cosmology, including attention to the astrological numerology which was central to the classical harmonic model. He believed that political theory was incomplete unless

Julian H. Franklin, *Jean Bodin and the Rise of Absolutist Theory* (London and New York: Cambridge University Press, 1973). For Bodin's life see Mario Turchetti, 'Jean Bodin', *Stanford Encyclopaedia of Philosophy*, https://plato.stanford.edu/entries/bodin/ (accessed 12 October 2019).

<sup>&</sup>lt;sup>48</sup> See Franklin, *Jean Bodin and the Sixteenth Century Revolution*, esp. pp.116–17. See also Manuel, *Philosophical History*, p.60.

<sup>&</sup>lt;sup>49</sup> Jean Bodin, 'Method for the Easy Understanding of History', trans. Beatrice Reynolds, *Records of Civilisation*: Sources and Studies no. 37 (New York, Columbia University:, Russell Press, 1945), p.17.

<sup>&</sup>lt;sup>50</sup> Bodin, *Method*, p.145.

<sup>&</sup>lt;sup>51</sup> Tooley in Bodin, Six Books of the Commonwealth, Introduction. p.xiv

<sup>&</sup>lt;sup>52</sup> Bodin, Six Books of the Commonwealth, p.466.

it took environmental factors into account, including the celestial environment. The correct organisation of the political order, he believed, must be accompanied by an understanding of the laws of history as revealed through numerology, chronology and astrology, that is, the entirety of the natural order. In his view astrologers could provide a commentary on politics equal to that of politicians and theologians:

For as a painter does one way consider of a mans bodie, and the physitian another: and the naturall philosopher one-way considereth of the mind of man, & the divine another, so also the politittan one way, the Astrologer another, and the divine a third way, judge of the change and ruin & ruin of Commonweals. The politian in the ruine of a citie or Commonweale, blameth the injuries and wrongs done by the prince unto his subjects, corruptnesse of the magistrats, with the iniquities of the laws: The astrologers considereth and beholdeth the force and power of the heavenly starres and the planets, and therefore thinketh divers motions to arise in mens minds, for the change and innovation of estates and Commonweales: But the Divine constantly affirmeth all plagues, wars, dearth, destructions of cities and nations, to proceed from the contempt of God and his religion.<sup>53</sup>

#### Bodin's critique of astrology

Bodin's main discussion of astrology is found in Chapter 5 of the *Method*, but most substantially in Book 4, Chapter 2 of the *Republic*. His critique of astrology started from the premise that the principle, the use of celestial phenomena to understand terrestrial affairs, was sound but its practitioners were at fault. In his 'Letter' on astrology, published in 1555, he wrote that astrology was 'the most beautiful science in the world' but that problems arose from its abuse, the word 'astrologer', he argued, becoming synonymous with that of 'sorcerer'. Astrology was therefore profoundly flawed in its implementation and practice. Neither music (perhaps a reference to Ficino) nor astrology, Bodin believed, could be a perfect guide to history, as both were relatively imperfect, being governed by number and therefore lesser factors in the hierarchy of causation. In no sense, he argued, could astrology be considered a universal solution to the world's ills. He conceded that his own system of historical analysis was

<sup>&</sup>lt;sup>53</sup> Bodin, Six Books of the Commonwealth, p.437.

<sup>&</sup>lt;sup>54</sup> See Halbronn, 'Astrology', p.208.

imperfect on the grounds that only God can know everything, but he insisted that at least it had more to recommend it than most other astrological conjectures.<sup>55</sup> Astrology was therefore inherently uncertain as well as (in its sixteenth-century application) technically flawed. Therefore, before astrology could be of practical use, it had to be purged of its inaccuracies, as well as the failings of its practitioners, together with its flawed philosophical assumptions, such as that auspicious moments could be elected for the foundations of towns:

Seeing therefor the Astrologers, even as these men also to have laid false principles and grounds of the celestial motions, and much to differ amongst themselves, concerning the course of the starres and planets are, they cannot therefore (I say) set down nothing certaine, concerning man's affairs, on the ruins of cities and Commonwealths. But yet it has lesse probabilitie but of the foundation of towns and cities, to judge of the rising or falling of Commonweales: as many do also of houses before they lay the foundation of them, to foresee and let that they should not be burnt or rased, or sick or the falling sickness, which to doe is a meere folly differing little from extreme madness, as though natures most constant order should depend of mans lightness, and the force of the celestial Spheres, of the will and pleasure of a bass carpenter or mason. <sup>56</sup>

#### **Astrological prediction**

Bodin was particularly sceptical of apocalyptic predictions. He wrote dismissively about the 1524 conjunction of Saturn, Jupiter and Mars at 8<sup>0</sup> Aries which was connected with the prediction of the destruction of the world through a deluge (even though conceded that it was true that there were floods at the time.<sup>57</sup> He also pointed out that the world did not end when a Jupiter Saturn conjunction coincided with an eclipse under Charlemagne.<sup>58</sup> Equally false, he observed, were Albumazar's (Abu Ma'shar's) supposed prediction of the end of Christianity in 1460,

<sup>55</sup> Bodin, Six Books of the Commonwealth, p.457

<sup>&</sup>lt;sup>56</sup> Bodin, Six Books of the Commonwealth, p.441.

<sup>&</sup>lt;sup>57</sup> Bodin, Six Books of the Commonwealth, pp.445–6

<sup>&</sup>lt;sup>58</sup> Bodin, Six Books of the Commonwealth, p.450.

Abraham the Jew's prediction of the coming of the Messiah in 1464 and Ciprianus Leouitius' forecast of the end of the world.<sup>59</sup>

Bodin's most serious criticism was of the zodiac, astrology's fundamental technical structure. Precession of the equinoxes, he argued, had so altered the zodiac that it had lost its validity. In the sixteenth century the twelve ecplitical constellations no longer occupied the same regions of the heavens as the signs of the zodiac which shared the same names, and in Ptolemy's time had occupied the same regions of the sky. In fact, doubts prompted by the precession of the equinoxes led him to reject the signs of the zodiac entirely:

Moreover, what they [the Chaldeans] have given us about the Signs of the Zodiac is altogether indefensible, since all parts of the Zodiac and whole signs have changed place since the time of their observation. For the first star of Aries, which occupied the first part of this constellation for six hundred years before Ptolemy, has arrived at the twenty eighth part ....<sup>60</sup>

Bodin estimated that, since the reign of Augustus (27 BCE – 14 CE), precession had resulted in a shift of the constellations of 17<sup>0</sup> relative to the signs of the zodiac. Ptolemy's error, he continued, was compounded by the fact that he had underestimated the rate of precession, showing himself to be a weak astronomer as well as a poor astrologer. In fact, it was Bodin who was wrong, apparently assuming a rate of precession of approximately one degree every ninety-four years as against the true rate, measured by Ptolemy, of one degree every seventy-two years. Nevertheless, Bodin was insistent that astronomical accuracy was essential to the long-term goal of political stability.<sup>61</sup> The arguments were very public. Halbronn notes that Bodin's concern with astronomical accuracy also lay behind his attack on August Ferrier's Treatise on astrology of 1550. Ferrier's critical response in his Advertissements à M Jean Bodin sur le quatrieme livre de sa Republique (1580), prompted a reply from Bodin under the pseudonym Rene Herpin. This bitter argument was only terminated by Ferrier's death.62

<sup>&</sup>lt;sup>59</sup> Bodin, Six Books of the Commonwealth, p.449.

<sup>&</sup>lt;sup>60</sup> Bodin, *Method*, Chapter 5. In contrast with his earlier statement, Bodin here correctly assumed a rate of precession of one degree every seventy-two years.

<sup>&</sup>lt;sup>61</sup> Halbronn, 'Astrology', p.208.

<sup>&</sup>lt;sup>62</sup> Halbronn, 'Astrology', p.208.

The rejection of the zodiac extended to natal astrology. There are only two references to natal horoscopes in either the *Method* or the *Republic*; both refer to planetary position in terms of diurnal motion, such as the rising of Mars, rather than in terms of the zodiac. And when Cosimo de Medici claimed that he was similar to the Emperor Augustus, as a piece of political theatre, both having been born under Capricorn (Augustus was born with the Moon in Capricorn) Bodin said the claim was false because, simply, Cosimo had not been born under Capricorn.

As a secondary consideration, he reasoned, if the zodiac was to be abandoned, then so was zodiacal geography, which identified presumed connections between the twelve signs and geographical zones and supposedly helped astrologers decide where a particular astrological configuration might have an effect. He brought forward various reasons to support his argument. Ptolemy's astrological regions, Bodin wrote, are 'a belief wrong even to entertain'. Quite simply, he argued, it was absurd to divide the globe neatly into four quadrants and have each ruled by one of the triplicities, or groups of three signs (i.e., the four elements: fire, earth, air and water). In Ptolemy's scheme, Aries, Leo and Sagittarius ruled all of Europe except the Balkans, Cancer, Scorpio and Pisces ruled north Africa, Gemini, Libra and Aquarius ruled western and central Asia and Taurus, Virgo and Capricorn ruled Mesopotamia, Persia and India. Bodin regarded these attributions as both completely arbitrary and in contradiction of the available evidence:

Moreover he [Ptolemy] called the Jews, the Syrians and the Idumaeans bold and impious, because they were subservient to Aries, Scorpion [sic] and Mars. By unanimous agreement of all historians the Syrians are tractable to the point of servility; the Jews were born for religion. Nothing can be more pliant than the Idumaeans.<sup>67</sup>

<sup>&</sup>lt;sup>63</sup> Bodin, *Method*, Chapter 5.

<sup>&</sup>lt;sup>64</sup> For background see Claudia Rousseau, 'An Astrological Prognostication to Duke Cosimo I de Medici of Florence', *Culture and Cosmos* 3, no. 2 (Autumn/Winter 1999): pp.31–59.

<sup>65</sup> Bodin, Method, p.86.

<sup>&</sup>lt;sup>66</sup> Claudius Ptolemy, *Tetrabiblos*, trans. F. E. Robbins (Cambridge, MA: Harvard University Press, 1971), II. 3.

<sup>&</sup>lt;sup>67</sup> Bodin, *Method*, Chapter 5; *Republic*, Book 4, Chapter 2.

Such was Bodin's contempt for this scheme that he doubted whether a man as great as Ptolemy could even have written the *Tetrabiblos*. The misleading correspondences between national characteristics and zodiac signs were bad enough. He also dismissed Pierre Cardan's attempt to salvage Ptolemy's zodiacal geography by adapting it to precession. For example, according to Bodin, Cardan claimed that the Spanish, Britons and Normans, formerly ruled by Sagittarius, were now ruled by Scorpio. They had therefore lost their true and loyal Sagittarian virtues and, like the Scorpion, had become rapacious and cunning. Apart from the fact that Ptolemy had attributed rulership of the Britons to Aries and not Sagittarius, a point on which Bodin did not comment. He found no more relevance in Cardan's version than in the Greek original.

Bodin also maintained that the orbits of the superior planets, Jupiter and Saturn, whose cycle was the conventional focus of astrological historiography, revealed alleged errors in Ptolemy's scheme. For example, he pointed out that while the civil war prior to the founding of the Roman Empire coincided with a Jupiter-Saturn conjunction in Scorpio, a 'water' sign connected to north Africa, the actual change of government took place in Europe, which was ruled by the fiery triplicity: in Ptolemy's system Italy, and hence Rome, was ruled by Leo. While he was at it, he also ridiculed Cardan's claim that the fate of all great empires depended on the tail of the Great Bear.<sup>68</sup> He rejected Cardan's belief that this constellation had been overhead at the foundation of Rome and that it was responsible for the rise of the Empire. And if that was not enough, he rejected Copernican heliocentric theory as absurd and dismissed Copernicus' alleged belief that historical change depended on the eccentric motion of the Earth.

Like many other sixteenth-century scholars, Bodin drew lessons from the great conjunction of 1524 when Mars, Jupiter and Saturn united at the tenth degree of Pisces. All the other planets, as well as the Dragon's Head, Bodin reported, had either been in Pisces, a watery sign, or Aquarius, the sign of the water-carrier and, in the unstable period which accompanied the early years of the Reformation, astrologers had forecast a deluge of Biblical proportions. The flood's failure to materialise produced a reaction against astrology and Bodin himself cited this as the most serious of all recent astrological errors.

Bodin's critique of astrology, then, was based on logic and evidence. Logic decreed that the procession of the equinoxes had critically damaged

<sup>&</sup>lt;sup>68</sup> Bodin, Six Books of the Commonwealth, Book 4, Chapter 2, p.449.

astrology's efficacy. Meanwhile, evidence showed the various claims of the astrologers concerning the zodiacal rulership of geographical zones and peoples could be shown to be false. Nature and the environment were crucial to the understanding of politics, and themselves existed within a cosmic context, but the application of precise astrological parameters to the natural world was unjustified.

#### The reform of astrology

Yet, Bodin reasoned, if astrology was in principle true, it should be possible to avoid such mistakes, a work which could only be accomplished by going back to first principles:

Yet doubt I not but that some more certain precepts might be given of the chaunges, and ruines of Commonweales if a man would enter into a certain account of the time past even from the beginning of the world: and so comparing one thing with another, and knitting one thing unto another, shall proceed father and set in order the varieties of Historiographers and varying amongst themselves; and of also going backwards, shall of all the eclipses of the Sunne and moon, even to the beginning of the world, by most certaine demonstrations comprehend the reasons of the whole time past: and compare the histories of the most true writers amongst themselves and with the oppositions and conjunctiones of the celestial starres and bodies, knit and conseyne the same with numbers, which force in all the course of nature is greatest: which things foulded up in infinit obscurities, and hidden and shut up in the most secret places of nature, are to be showed not by vaine coniectures, but by most evident and manifest argument.<sup>69</sup>

Having identified astrology's weaknesses, Bodin defined his task. First, a chronology of events must be established. Second, this must be compared to planetary cycles, especially to eclipses and to the Jupiter-Saturn conjunctions. Third, the correlations between terrestrial events and celestial cycles must then be related to number, which was both more reliable than astrology and superior to it. Finally, the appropriate conclusions must be based on 'most evident and manifest arguments' as opposed to the 'vain conjectures' which had formerly held sway. The

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<sup>&</sup>lt;sup>69</sup> Bodin, Six Books of the Commonwealth, Book 4, Chapter 1, p.450.

absence of zodiacal reference points made it necessary for Bodin to construct another framework. This he found in chronology, relating planetary cycles to number in terms of the periods of time between the conjunctions of any two planets under consideration. On planetary conjunctions, he wrote:

Wherein many greatly offend, who think that the power and influence of the celestial Spheres to be nothing, when as yet for all their strength and power has alwaies been most great and effectuall, not only upon these elements which we here see, and so upon all other forms of living creatures, but upon them also who also live like beasts, are sacred ... and yet of the good nothing at all is to be feared.<sup>70</sup>

Bodin's reference to the argument that there is nothing to be feared in a good universe is a rejection of the kind of disastrous predictions epitomised by those of 1524. Nowhere, though, did he set out any rules for interpretation as one would find in a medieval astrological text, beyond a few clues. For example, conjunctions of the superior planets (referring to Jupiter and Saturn) are strongest in Scorpio especially if Mars is there, and oppositions may have an equal significance.<sup>71</sup> He set out examples of how conjunctions of the superior planets had coincided with political instability.

74 CE: conjunction in Sagittarius; Palestine sacked, Jerusalem burned, the year of the four emperors.<sup>72</sup>

240 years later (i.e, 314): conjunction in Capricorn coinciding with the rise to power of Constantine.<sup>73</sup>

430 Mars in Aquarius: the Germanic invasions and the sack of Rome.<sup>74</sup>

Undated: The Arab invasions of Muhammad.<sup>75</sup>

796 Jupiter conjunct Saturn in Leo Charlemagne conquers Italy, the first king of Polonia (Poland).<sup>76</sup>

<sup>&</sup>lt;sup>70</sup> Bodin, Six Books of the Commonwealth, p.445.

<sup>&</sup>lt;sup>71</sup> Bodin, Six Books of the Commonwealth, p.448.

<sup>&</sup>lt;sup>72</sup> Bodin, Six Books of the Commonwealth, p.448.

<sup>&</sup>lt;sup>73</sup> Bodin, Six Books of the Commonwealth, p.448.

<sup>&</sup>lt;sup>74</sup> Bodin, Six Books of the Commonwealth, p.448.

<sup>75</sup> Bodin, Six Books of the Commonwealth, p.449.

<sup>&</sup>lt;sup>76</sup> Bodin, Six Books of the Commonwealth, p.449.

40 years later (i.e. 836): Jupiter conjunct Saturn in Sagittarius; the moors attack Greece and ravage Italy. 1464: Motion of people in almost all parts of the world, Ladamachus, the king of the Tartars was overthrown, King Henry the sixth of England was imprisoned, Frederick the third was driven out of hungry by Matthias Corvinus, Louis 11th of France was besieged and Alexander, king of Albania, rebelled against the Turks. 18

1524 Jupiter conjunct Saturn in Pisces: rebellion in Germany, Rhodes taken by the Turks, Frederick becomes king in Denmark overthrowing the previous King, Gustavus Adolphus king in Sweden, Francis, king of France taken prisoner by the Spaniards at the Battle of Pavia.<sup>79</sup>

1544 and 1545: Jupiter conjunct Saturn in Scorpio; war in Germany.<sup>80</sup>

1584 Saturn conjunct Mars at the first point of Aries Jupiter 12 degrees Aries and the Sun and moon both in areas connected with changes of cities and Commonweals under God.<sup>81</sup>

Bodin also cited the Peloponnesian War as just one of many such events whose commencement coincided with a significant eclipse. <sup>82</sup> If Bodin's goal was the management of history for the good of all, then a central piece of his programme required the formulation of a proper theory of historical change. His theory of the development of the state was contained within a model of the division of all existence, including time and consciousness, into three forms, outlined in Chapter 5 of the *Method* and Book 4, Chapter 1 of the *Republic*. There were three levels in the cosmos; a celestial world of the stars, an intellectual world of the mind and an elemental world of the birth and death of physical things. From this he projected three types of people, southern, temperate and northern, inhabiting six zones of the

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<sup>&</sup>lt;sup>77</sup> Bodin, Six Books of the Commonwealth, p.449.

<sup>&</sup>lt;sup>78</sup> Bodin, Six Books of the Commonwealth, p.449.

<sup>&</sup>lt;sup>79</sup> Bodin, Six Books of the Commonwealth, p.448.

<sup>80</sup> Bodin, Six Books of the Commonwealth, p.449.

<sup>81</sup> Bodin, Six Books of the Commonwealth, p.445.

<sup>&</sup>lt;sup>82</sup> Herodotus, *The Histories*, trans, Aubrey de Sélincourt (Harmondsworth, Middlesex: Penguin 1972), VII, p.458; Nicholas Campion, *A History of Western Astrology*, Vol 1. The Ancient World (London: Bloomsbury, 2009), p.79.

world, three north of the equator and three to the south. In the northern hemisphere the torrid zone occupied latitudes 0 to 30 degrees north, the temperate zone 30 to 60 degrees north and the frigid zone 60 to 90 degrees north. In the southern hemisphere the zones occupied the equivalent degrees with the exception of the frigid zone, which came to an end at 75 degrees south, there being, Bodin claimed, no information for the polar region. Bodin allowed exceptions on the grounds of local topography and climate. For example, the mountainous Swiss and Florentines had developed democratic forms of government, which were normally associated with northerners, on account of environmental factors which overruled the conditions arising from their habitation of the temperate zone.<sup>83</sup>

Southern zone ruled by Saturn indicating understanding, quiet, knowledge, contemplation of truth, wisdom, mathematics, learning.

Middle zone ruled by Jupiter: action, justice, warmth, virtue, managerial skills.

Northern zone ruled by Mars: strength, war, the arts, fabrication, skill, strength, imagination, the creation of mechanical things. Germans.<sup>84</sup>

It was the analysis of all human society in terms of the number three that was to open the door to comprehending human history: 'From this distribution, as it was, of all three peoples, we shall understand more plainly the power of nature'. 85 The notion of threeness as a fundamental organising principle was expressed first in periods of history and second in the number of kinds of state. He rejected the modern interest in the mixed constitution which allowed for flexible analysis of each system of government on its own terms, and instead derived his delineation of the types of state was derived from Aristotle, replacing the original scheme of six types of state with his own system of three; monarchy, the rule of the individual, aristocracy, the rule of the minority (his personal preference), and democracy, the rule of the majority. 86 In addition to these legitimate forms, each state had two degenerate forms making nine varieties of state

<sup>83</sup> Bodin, Method, pp.111–2.

<sup>84</sup> Bodin, Method, pp.111-2.

<sup>85</sup> Bodin, Method, Chapter 5.

<sup>&</sup>lt;sup>86</sup> Bodin, *Six Books of the Commonwealth*, Book 4, Chapter 1; Tooley, *Republic*, xxix, 129; Aristotle, *Politics*, III.

in all. There were six types of revolution between the legitimate states and eighteen between the degenerate. In addition, a state could be ruled by a type of government derived from another. Republican Rome, for example, was a democracy governed by an aristocracy.

History itself was organised into three great epochs, each of 2,000 years, the world being 6,000 years old. The first epoch, which lasted from the creation in 4000 BCE (he rejected what he described as the Egyptian belief that the world was 10,000 years old) to 2000 BCE, was dominated by southern peoples and marked by the development of religion, for which he believed the contemplative southern temperament was particularly fitted. The resulting state was theocratic. The second epoch, which lasted from 2000 BCE to the beginning of the Christian era, was dominated by the temperate peoples and saw the rise of government and the political arts. The final epoch, which he believed was due to last until 2000 CE, was dominated by the northern peoples, who excelled in mechanical invention and warfare.

Bodin ascribed planetary rulers to all three epochs, arranging them in their descending 'Chaldean' order from Saturn to the Moon, but excluding the Sun, which 'like a fountain of light will be common to all'. This was a clear paraphrase of Copernicus' statement that:

In the midst of all assuredly dwells the Sun. For, in this most beautiful temple, who would place this luminary in any other or better position from which he can illuminate the whole at once? Indeed, some rightly call Him the Light of the World, others, the Mind or the Ruler of the Universe: Hermes Trismegistus names him the visible God. Sophocles Electra calls him the all-seeing. So indeed the Sun remains, as if in his kingly dominion, governing the family of Heavenly bodies which circles around him.<sup>88</sup>

Ficino wrote something very similar in his 1487 work *The Book of the Sun*:

For these reasons Orpheus called Apollo the vivifying eye of heaven, and what I am about to say is taken straight from the Hymns of Orpheus: 'The Sun is the eternal eye seeing all

Nicolaus Copernicus, On the Revolutions of the Heavenly Spheres, trans. Charles Glenn Wallis (Amherst, NY: Prometheus Books, 1995) pp.24–5.

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<sup>87</sup> Bodin, Method, p.122.

things, the pre-eminent celestial light, moderating heavenly and worldly things, leading or drawing the harmonious course of the world, the Lord of the world, immortal Jupiter, the eye of the world circling round everywhere, possessing the original imprint in whose image all worldly forms are made.<sup>89</sup>

Bodin picked up on the metaphor, writing that 'God flourishes everywhere, like the splendour of the Sun'. <sup>90</sup> In Bodin's historical scheme, the first epoch was ruled by Saturn, the second by Jupiter and the third by Mars. Continuing the sequence of planets, each epoch was given a second ruler, the first Venus, the second Mercury and the third the Moon. In keeping with medieval practice, the planets lent their qualities to their respective periods. These Bodin related directly to Chaldean tradition. Thus Saturn, signifying contemplation (according to Brown) or understanding (in Reynolds' translation), ruled the Earth when religion and philosophy were born. Bodin was a convinced believer in the essential historicity of myth arguing, for example, that Hesiod's description of Jupiter's revolt against Saturn possessed a factual basis as an account of the social change that took place when the first epoch was transformed into the second. <sup>91</sup>

Jupiter, planet of action and 'execution', was dominant during the second phase, bringing the rise of government and those political arts which were necessary to control men when the piety of the first age proved insufficient. Mars, planet of production and war, was the clear significator of the warlike and mechanically inventive northern Europeans. In fact, Bodin referred to these people as the 'children of Mars'. These assertions were justified by a series of geographical, cultural, historical and sociological observations. Evidence for Jupiter's rulership of the second epoch he found in the fact that thunder and lightning, ruled by Jupiter, originated in the second, temperate zone. Thus climatic causes in their meteorological form were introduced to demonstrate the interdependence of space and time and their joint regulation by the number three. Mars

<sup>&</sup>lt;sup>89</sup> Marsilio Ficino, *The Book of the Sun* (De Sole), trans. Geoffrey Cornelius, Darby Costello, Graeme Tobyn, Angela Voss & Vernon Wells, *Sphinx: A Journal for Archetypal Psychology and the Arts* 6 (1994): p.132. Also see http://www.users.globalnet.co.uk/~alfar2/ficino.htm. See also Henry Cornelius Agrippa, *Three Books of Occult Philosophy*, facsimile of the 1651 translation (London: Chthonius Books, 1986), Book II, Chapter XXXII, p.284.

<sup>&</sup>lt;sup>90</sup> Bodin, *Method*, p.113.

<sup>&</sup>lt;sup>91</sup> Bodin, *Method*, Chapter 5.

<sup>&</sup>lt;sup>92</sup> Bodin, Method, Chapter 5.

could be shown to rule the third epoch by similar arguments. For example, Mars ruled arts and crafts, and according to Bodin this planet was therefore associated with craftsmen in their role as producers of goods. Was this, he reasoned, not the cause of the inventive genius of the Germans and Britons and of the fact that their technical assistance was considered vital in the mines and industry of the people of the middling zone, such as the Spanish and Portuguese?

Bodin placed the entire scheme in the context of a planetary body politic, again starting from a disagreement with Plato who, he claimed, equated soldiers with the heart, magistrates with the brain and common people with the liver. Rather, Jupiter ruled the heart, Saturn the spleen, Mars the gall bladder and the Moon the liver, a system which differed from the usual scheme in which Jupiter ruled the liver and the Sun the heart. The northern people therefore received the dual benefit of the Moon, which nourished the elemental earth, regulating the tides together with all biological processes, and of Mars, which nourished the body via the gall bladder. Further evidence was cautiously plucked from the doctrines of natal astrology:

If then, we are to have faith in the astrologers, those who have Mars in the ascendant at their birth will be either soldiers or skilled workers ... those who have the moon (prominently placed) in their horoscopes are said to be exceedingly strong and healthy.<sup>93</sup>

Such qualities, Bodin claimed, were clearly demonstrated by the Scythians, whom Caesar declared to be particularly warlike and are therefore typical Martial subjects. Thus the individual enters Bodin's scheme as the possessor of a horoscope providing a connection directly to the heavens, mediated by but also bypassing the superior level of the cultural group or historical epoch. The celestial connection was highly significant, although it was planetary and not zodiacal in nature. When Bodin argues that the state should defend minority rights he was acknowledging that diversity in human nature is itself the natural consequence of astrology.

Bodin adopted a model of causation which depended on a hierarchy of causes, familiar from Ptolemy, which originated, in Christian adaptations, with God, and then passed successively through number to astrology,

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<sup>93</sup> Bodin, Method, Chapter 5.

'climate' (environmental factors), and the state to the individual. As Ptolemy wrote:

The sun, together with the ambient [environment], is always in some way affecting everything on the earth, not only by the changes that accompany the seasons of the year\_to bring about the generation of animals, the productiveness of plants, the flowing of waters, and the changes of bodies, but also by its daily revolutions furnishing heat, moisture, dryness, and cold in regular order and in correspondence with its positions relative to the zenith...The active power of the sun's essential nature is found to be heating and, to a certain degree, drying. 94

#### He continued:

Seeing that there is nothing in this world which commeth to passe by chaunce or fortune, as all divines and the wiser sort of the Philosophers have with one consent resolved: Wee will here in the first place set downe this maxime for a ground or foundation, That the chaunges and ruines of Commonweals, are humane, or naturall or divine.<sup>95</sup>

In this scheme, every single event had a purpose and a function together with a cause which itself may be traced directly to either human interference, climatic or geographical causes or divine will. Human activity in both its individual and collective forms, together with the range of causes grouped together as climatic, were themselves related to astrological influences. In Tooley's summary of Bodin's views:

Their [the stars] perpetual and complex revolutions in their circular orbits around the earth are the cause of all phenomena and all changes of any kind. All things, from a grain of corn to a commonwealth, are moulded by the place and time of their occurrence, and their life and histories governed by the movement of the heavens. Hence his view of history is the record of recurrences. The historical process must be cyclic

<sup>95</sup> Bodin, *Six Books of the Commonwealth*, p. 436; For the Method see especially pp.121–2 and 146–52; Manuel, *Philosophical History*, p.60.

<sup>&</sup>lt;sup>94</sup> Ptolemy, *Tetrabiblos*, I.2.

rather than evolutionary since it proceeds from the circular motion of the heavens.<sup>96</sup>

The final sentence is crucial: astrology was to be based on planetary cycles rather than the complex edifice of interpretative horoscopic astrology built up since the Hellenistic world.

Where for these examples thus propounded, it is lawfull by a certaine coniectural gessing to ayme at the rising and falling of Commonweales: as also for a man looking into the precedent causes of things, with the divers conjunctions and oppositions of the Planets, to go to farre as the knowledge of such things will beare: not rashly affirming, or lightly believing any thing concerning such things as are by the Almightie and ever living God farre set from the sense and reach of man.<sup>97</sup>

The ultimate authority in all history was reserved for God:

I have, however, a firm conviction that [astronomical] regions and celestial bodies do not have the power to exercise ultimate control (a belief wrong even to entertain), yet men are so much influenced by them that they cannot overcome the law of nature except through divine and or their own continued self-discipline. 98

God is not only prior to the world in nature but also in time.<sup>99</sup> God, Bodin wrote, is pre-eminent in human affairs.<sup>100</sup> 'In all these things', he added, 'the God of Nature Is supreme, not his creatures', this being one reason for astrologers' inaccurate predictions.<sup>101</sup> Bodin's astrology was aimed at enhancing freedom of choice through an understanding of the laws of nature and necessity as revealed in celestial cycles. 'All change', he wrote,

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<sup>96</sup> Bodin, Six Books of the Commonwealth, Book 4, Chapter 2, p.xxxiii.

<sup>&</sup>lt;sup>97</sup> Bodin, Six Books of the Commonwealth, p.467.

<sup>98</sup> Bodin, Six Books of the Commonwealth, Book 4, Chapter 2.

<sup>99</sup> Bodin, Method, p.317.

<sup>100</sup> Bodin, Method, p.16.

<sup>101</sup> Bodin, Six Books of the Commonwealth, p.449.

'is voluntary or necessary, or mixedly both'. 102 Referring to the 'Golden Chaine' of causes, Bodin wrote, that even if God can give indications of future destructions to the prophets, 'the will of man, which the divines confesse to be free, at the least concerning civil actions'. 103 Human history, in turn, must follow from human action, from 'the will of mankind'. 104 Therefore astrology predicts potential futures which can be changed by action in the present.

In the version of astrological influence worked out by Thomas Aquinas (1225-74) in the thirteenth-century, necessary causes were the result of astrological influences and were felt through human physical desires and needs, the individual need to eat, reproduce and survive and the collective desire to make war or rebellion. Voluntary causes emanated from the soul, which was in direct communion with God. In the *Summa Contra Gentiles* Aquinas wrote that,

In the second place, acts of the free-will, which is the faculty of will and reason, escape the causality of heavenly bodies. For the intellect or reason is not a body, nor the act of a bodily organ, and consequently neither is the will, since it is in the reason, as the Philosopher [Aristotle] shows (De Anima iii, 4,9). ... Hence the heavenly bodies cannot be the direct cause of the free-will's operations. Nevertheless they can be a dispositive cause of an inclination to those operations, in so far as they make an impression on the human body, and consequently on the sensitive powers which are acts of bodily organs having an inclination for human acts. <sup>105</sup>

In this model the stars influence the body, but whether bodily pressure influence the soul, and therefore individual choice, is entirely a matter of individual free will.

<sup>&</sup>lt;sup>102</sup> Bodin, Six Books of the Commonwealth, Book 4, Chapter 1.

<sup>103</sup> Bodin, Six Books of the Commonwealth, p.436

<sup>104</sup> Bodin, Method, p.17.

<sup>&</sup>lt;sup>105</sup> Thomas Aquinas, *Summa Theologica*, 4 Vols. Literally translated by Fathers of the English Dominican Province. Second and Revised Edition. (London: Burns, Oates and Washbourne, 1920), 2.2.95.5.

http://www.newadvent.org/summa/309505.htm; See also Thomas Aquinas, *Summa Contra Gentiles*, 4 Vols., trans. Vernon J. Bourke (Notre Dame, IN: University of Notre Dame Press, 1975), III. esp. pp.84–7, 91–2.

Bodin's interest in the planets was based partly on the numerologically important fact that there were seven of them, rather than on account of their astrological influence or significance. He believed that (understood mathematically) the cycles of the planets were the orderly agencies of God, the first and original cause, providing the grid against which history might be measured. His premise was that, as the motion of the planets is mathematically and geometrically determined, number must be a prior cause to astrology.

Wherefore seeing that mans wil is divers and mutable, & God his judgements most secret and inscrutable: there remaineth only to know, whether that by naturall causes (which not altogether obscure, but by a certaine constant order of causes and effects governed, kept that course) a man may judge of the issue and success of Commonweales. Yet by these naturall causes having in them this power (which are many and divers) we mean not civill causes, whereunto the chaunge and ruine of cities and Commonweales must needs immediately follow, as when good deferrs goe unrewarded, and great offences unregarded, who knoweth not but to that such a state or Commonweale must needs in short time perish and come to naught: for of all causes none is more certain, none more weightie, and In brief none nearer unto the change or ruin of a city or Commonweale than these. But the causes which we here seeke after, are the celestial and more remote causes, vet proceding from a certaine naturall course and force: howbeit that it be good also to behold and foresee all manner of causes whatsoever.106

Bodin accepted the traditional doctrines that historical change was regulated by planetary cycles beginning with the shortest-term, the monthly lunar cycle, which was especially important if it culminated in an eclipse, and moving up to the long-term cycle of the Jupiter-Saturn conjunctions. His complaint was that, as a result of the poor record of astronomical observation and accuracy, there had to date been no authoritative work on the historical significance of these cycles. The situation was so bad, he claimed, that one astronomer might state that a planet was retrograde while another might say it was direct in motion.

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<sup>&</sup>lt;sup>106</sup> Bodin, Six Books of the Commonwealth, p.437.

The nature of the state itself owed more to climatic factors, that is to the totality of environmental factors from celestial to geographical and meteorological influences, than to cultural or individual ones, which in Ptolemy's scheme of historical change were inferior causes. For example, Bodin considered that the failure of the English to subdue the Scots was a consequence of their inability to operate politically or militarily in the Scottish environment. Similarly, he reasoned that even if the French ever managed to successfully invade England, they would be unable to impose their own political system which had evolved from conditions peculiar to France: political systems emerge in specific circumstances and it is impossible to transfer one country's system to another. Thus, the pragmatism and toleration which Bodin saw as essential to resolve the French civil wars were both cosmically sanctioned ad universal but also local. As Tooley wrote, 'it is only when his [Bodin's] cosmological ideas are taken into consideration that the full significance of his relativist view on politics are to be appreciated.<sup>107</sup>

Bodin's new astrology was to serve a direct political purpose, which was to help resolve the present religious wars and avoid future conflicts. He clearly intended his work to have definite practical value. The *Method*, for example, was a manual for the thinking statesman and his intention was to concentrate long and hard upon 'human activities and the rulers governing them', an ambition appropriate enough for any humanist. <sup>108</sup> In doing this, he wrote, he would discover and illustrate the laws of historical change, enabling people to live in harmony with them, a mission summed up in his statement in the Republic that 'A true king is one who observes the laws of nature'. 109 According to this view, kings are contained within nature, not above or outside it, and it was therefore essential to understand the patterns of nature in both their terrestrial and celestial guises and to improve the functioning of the monarchical state. Once identified, these patterns could be extrapolated into the future in order to make accurate predictions, with potentially benign consequences for the commonwealth. Bodin was convinced that his analysis of the astrological and numerological laws governing the rise and fall of states could be projected into the future to aid in the prediction of, and therefore the preparation for, future political crises. 110 According to Manuel's succinct assessment,

<sup>&</sup>lt;sup>107</sup> Tooley in Bodin, Six Books of the Commonwealth, p.xxxiii.

<sup>&</sup>lt;sup>108</sup> Bodin, *Six Books of the Commonwealth*, preamble; see Frederick Copplestone, *History of Philosophy*, Vol. III (Westminster, MD: Newman Press, 1946), p.324.

<sup>&</sup>lt;sup>109</sup> Bodin, Six Books of the Commonwealth, Book 2, Chapter III.

<sup>&</sup>lt;sup>110</sup> Manuel, *Philosophical History*, p.138.

'Armed with astrological and numerological foreknowledge Bodin's statesman might mitigate the influence of the stars or devise ways of assuaging their painful effects upon the body politic'. The universal aspect of Harmony was embedded in astronomical cycles, as applied through astrology, which clearly required substantial reform if it was to perform the task of maintaining social and political harmony.

#### **Bodin and Kepler**

The most prominent advocate of Bodin's reformed political cosmology was Johannes Kepler. Kepler was born in 1571, the year when Bodin began his life at court, and five years before the publication of the *Republic*. Their working lives overlapped in the 1590s, when Bodin was in his sixties and Kepler still in his twenties. Indeed, the young Kepler devoted an entire chapter of the Harmonice Mundi to a critique of Bodin's harmonic philosophy of history. 112 Aiton, Duncan and Field conclude that Bodin's theories 'fascinated Kepler, in spite of crucial differences'. 113 Aviva Rothman argues that Kepler disagreed with Bodin's regard for monarchy and considered that harmony equated to both the public good and the good of the state.114 However, Kepler shared Bodin's concern with the uncertainty in Europe at the time. It addition to the religious schism, which drew a boundary between Protestant and Roman Catholic worlds through the middle of Germany, separating north and south, the border with the Islamic world lay close to the cities of Graz and in Linz, where Kepler lived. Bodin's work had clearly made an impact on Kepler, for he was quick to respond: although the Republic was published in 1576, a Latin edition did not appear until 1586 while the edition cited by Kepler appeared in 1591. The Harmonice Mundi itself was planned in 1599, three years after Bodin's death, although not published until 1619.

Kepler himself wrote of Bodin's demonstration that 'God the creator has embellished this work of his by joining the ratios of equal and of similar in one concerted harmony' that 'I agree with his purpose' and 'In this passage Bodin touches my heart by referring to the themes of my *Secret of the Universe*, though in ignorance.<sup>115</sup> He also argued that Bodin's harmonic

<sup>&</sup>lt;sup>111</sup> Manuel, *Philosophical History*, p.63.

<sup>112</sup> Kepler, *Harmony of the World*, pp.255–78.

<sup>113</sup> Kepler, The Harmony of the World, p.255, nn. 203, 278.

<sup>&</sup>lt;sup>114</sup> Rothman, Aviva, Pursuit of harmony, p.211.

<sup>&</sup>lt;sup>115</sup> Kepler, *Harmony of the World*, p.278.

theory has a 'considerable usefulness in understanding the state'. 116 Further, he continued, the state must be based on the rule of law:

If the magistrate has unfettered authority to govern without laws, and neither observes is natural justice nor plays the part of a good and blameless man, he will not be a magistrate but a tyrant. And since the number of good leaders in a city is extremely small, it is not sensible for the state to expose itself to this danger every time a new magistrate is appointed.<sup>117</sup>

Harmony could even prescribe a sequence of punishments, beginning with the possibility of redemption and progressing to serious penalties deal with repeat offenders:

Bodin demonstrates harmonic proportion in those laws which avenge the first commission of a misdeed equally with a light fine in all cases, as if to serve as a warning, which afterwards punish second offenders more severely, and those who offend a third time still more severely, and which finally sentence them to death. For the arithmetic quality of the first occasion is mixed with geometric proportion in the more serious punishment for the repeated and therefore more serious crime, this combination of the two into one seemed to Bodin to constitute a Harmonic proportion.<sup>118</sup>

In the *Harmonice Mundi* Kepler confined himself to a discussion of Bodin's political theory, particularly the three forms of the state, the popular, aristocratic and royal (derived from Aristotle), discussing the relationship between these and the arithmetical, geometrical and harmonic respectively, summarising Bodin's arguments, although not his particular views on astrology. <sup>119</sup> Kepler, though, did follow Bodin in criticising the body of astrological tradition. In March 1598 he wrote to Maestlin, 'I am a Lutheran astrologer, I throw away the nonsense and keep the hard kernel', but as Judith Field has pointed out, the definitions of what constitutes

<sup>&</sup>lt;sup>116</sup> Kepler, *The Harmony of the World*, p.256.

<sup>117</sup> Kepler, The Harmony of the World, p.265.

<sup>&</sup>lt;sup>118</sup> Kepler, *The Harmony of the World*, p.269.

<sup>&</sup>lt;sup>119</sup> Kepler, *The Harmony of the World*, p.259, fn. 208; Aristotle, *Politics*, trans. H. Rackham (Cambridge, MA, and London, 1943); Aristotle, *The Nicomachean Ethics*, trans. J.A.K Thomson, revised Hugh Tredennick (London: Penguin 2004).

'nonsense' and 'hard kernel' have changed over time. <sup>120</sup> Like Bodin, Kepler regarded the principle of astrology as true, but its implementation as flawed. Amongst the key features of Kepler's astrology, two are significant. One is that it contained a core of demonstrable truth – its 'hard kernel'. The other is that part of the mechanism by which it worked was collective psychology, drawing directly on classical antecedents in which the motion of the planets stirs up the irrational levels of the soul, a model of which the earliest known account is found in the *Corpus Hemeticum*, dated to the second century BCE and translated into Latin in the fifteenth century. <sup>121</sup> Like Bodin, Kepler favoured a mathematical approach and regarded astrology as perfectly natural, a logical extension of the harmonies he perceived throughout the universe. In 1610 he wrote that:

The human being, however, with his soul and its lower powers, has such an affinity with the heavens, as does the surface of the Earth, and this has been tested and proven in many ways, of which each is a noble pearl of astrology, and is not to be rejected along with [all of] astrology, but to be diligently preserved and interpreted.<sup>122</sup>

Kepler's psychological theory was derived from interpretations of Aristotle's *De Anima* as articulated influentially by Thomas Aquinas, and assumed that the inferior part of the soul, the passive soul, is subject to planetary influence, but the superior, active soul, can negotiate with such influences, minimising associated difficulties and maximising the benefits.<sup>123</sup>

All powers coming down from above are ruled according to Aristotle's teaching, namely, that inside this lower world or earthly sphere there is a spiritual nature, capable of expression

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<sup>&</sup>lt;sup>120</sup> Kepler to Maestlin, 15 March 1598, letter 89, l. 177, KGW 13, 184, cited in Field, *Kepler's Geometrical Cosmology*, p.127.

Walter Scott, trans., Hermetica: The Ancient Greek and Latin Writings which contain Religious or Philosophic Teachings Ascribed to Hermes Trismegistus (Boulder. CO: Shambala, 1982), Vol. 1, p.271, Libellus XVI, 15-16; Brian P. Copenhaver, Hermetica (Cambridge: Cambridge University Press, 1992), pp.15, 60

<sup>&</sup>lt;sup>122</sup> Johannes Kepler, *Tertius Interveniens*, Thesis 64, trans. Ken Negus, *Culture and Cosmos* 1, no. 1 (Spring/Summer 1997): p.52.

<sup>&</sup>lt;sup>123</sup> Thomas Aquinas, *Summa Theologica*, 2.2.95.5.

through geometry. This nature is enlivened by geometrical and harmonic connections with the celestial lights, out of an inner drive of the Creator, not guided by reason, and itself is stimulated and driven for the use of their powers.<sup>124</sup>

He concluded that the soul (which we may see as equivalent to Plato's rational soul), was free from direct planetary influence, by relying on the interpretation of part of the rational soul in Aristotelian thought as the 'Active Intellect'. Aquinas considered that the 'Active Intellect' was equivalent to the Christian soul, and if the soul was therefore free from planetary influence, this could only be exerted via the body:

Of course acts of choice and movements of the will are controlled by God. And human intellectual knowledge is ordered by God through the mediation of the angels. Whereas matters pertinent to bodily things, whether they are internal or external, when they come within the use of man, are governed by God by means of the angels and the celestial bodies. 125

He added, 'man is ordered in regard to his body under the celestial bodies, in regard to his intellect under the angels, and in regard to his will under God'. This formula actually provided an explanation for why astrological prediction might work in general circumstances but not specific ones:

That astrologers not unfrequently forecast the truth by observing the stars may be explained in two ways. First, because a great number of men follow their bodily passions, so that their actions are for the most part disposed in accordance with the inclination of the heavenly bodies: while there are few, namely, the wise alone, who moderate these inclinations by their reason.<sup>127</sup>

In Kepler's view, following Aquinas, the passive soul 'operates on its own account, is the offspring of the inferior faculties of the soul ... is subject to the powers of nature ... is strong by the motion of the alteration which it

<sup>&</sup>lt;sup>124</sup> Kepler, *Tertius Interveniens*, p.64.

<sup>&</sup>lt;sup>125</sup> Aquinas, Summa Contra Gentiles. III.91.2.

<sup>&</sup>lt;sup>126</sup> Aquinas Summa Contra Gentiles III.92.24.

<sup>&</sup>lt;sup>127</sup> Thomas Aquinas, Summa Theologica.2.95.5.

brings to its body, so that it is completely subject to the vital faculty', whereas the active soul, on the other hand, is 'occupied in activity ... (is subject) to the will of man ... (and) operates outside itself ... adapting its operations to the proportions, or bringing the proportions into them'.<sup>128</sup>

The central methodology of Kepler's reformed astrology, following Bodin, was repetition. The principle was that, if a particular planetary configuration coincided with a certain kind of event, a similar event might be expected the next time that the same configuration, or a similar one, occurred. For example, writing in 1601 he observed that the St. Bartholomew's Day massacre in Paris in 1572 took place when Mars was conjunct Saturn, while the castle at Eger in Hungary was captured by the Turks in 1596 (a highly significant event at the time, the region being part of the contested border between Christian and Islamic Europe) when Mars was opposed to Jupiter. 129 His conclusion was that:

Experience shows that under these two conjunctions souls are generally stunned and frightened, or aroused in the expectation of revolts, and this fact is very significant for a multitude of people congregated in one place either for some undertaking or for destruction, as military experience testifies.

In Kepler's political cosmology certain planetary configurations, in particular those between Mars, Jupiter and Saturn, cause volatility in the collective psychology and indicate a possible risk of political violence. The mechanism was one in which the movements of the planets stir up the collective soul, and such disturbances then express themselves through political volatility, resulting in violent disturbance, following models found in both the *Corpus Hemeticum* and Aquinas. The theory of repetition dictated that the kind of events that occurred in 1572 and 1596 would therefore recur in 1602. He then looked forward to a series of four planetary configurations in 1602, a solar eclipse at 3 degrees of Capricorn, a sextile (60 degree separation) between Mars and Saturn, a conjunction of Mars and Jupiter (similar to 1569) and a conjunction of Mars and Saturn (the same as in 1572).

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<sup>&</sup>lt;sup>128</sup> Kepler, *Harmony of the World*, IV, p.310. See also p. 309.

<sup>&</sup>lt;sup>129</sup> Johannes Kepler, 'On the More Certain Fundamentals of Astrology'. Prague, 1601, trans. Mary Ann Rossi with notes by J. Bruce Brackenbridge, *Proceedings of the American Philosophical Society* 123, no. 2 (April 1979): pp.85–163, Thesis 71.

In Kepler's view this information was of great importance to governments and policy should take it into account, specifically its likely consequences, a combination of reform and repression, with reform being the first priority and repression a last resort.

It is preferable for peace and quiet to prevail, and sedition is feared, let meetings not be held in August and September, or let them be broken up, or better yet, let the causes exasperating people's dispositions be taken quickly away, or by the introduction of some new deterrent, let their minds be changed.<sup>130</sup>

Astrology is therefore probabilistic rather than deterministic. 'These remedies', he wrote, 'are always in our power, however things may happen, and nothing is absolutely predetermined'. <sup>131</sup> This, of course, was a clear paraphrase of Ptolemy's statement that 'they would never have devised certain means of averting or warding off...the universal and particular conditions that come or are present by reason of the ambient, if they had any idea that the future cannot be moved and changed'. <sup>132</sup> In military terms, once problems had been foreseen, they could be guarded against by clear leadership, 'a great safeguard for the army lies in their loyalty to and high regard for their commander; for every victory depends on a driving force of the spirit'. <sup>133</sup>

A later example occurs in Kepler's predictions for 1618. He wrote that May 1618:

Has very dangerous aspects, as five planets gather together in Taurus, four of which advance from a Sextile to a Quintile with Jupiter. My fundamental argument is this, that a Conjunction of Mars and the Sun takes place next March in Aries, under the influence of which Germany stands; while numerous Conjunctions take place in May in Taurus near the Plejades. 134

133 Kepler, 'On the More Certain Fundamentals of Astrology', Thesis 71, p.104.

<sup>&</sup>lt;sup>130</sup> Kepler, 'On the More Certain Fundamentals of Astrology', Thesis 71, p.104.

<sup>&</sup>lt;sup>131</sup> Kepler, 'On the More Certain Fundamentals of Astrology', Thesis 71, p.104.

<sup>132</sup> Ptolemy, Tetrabiblos, I.3.

<sup>&</sup>lt;sup>134</sup> Johannes Kepler, 'Astrological Predictions for the Year M.DC.XVIII', trans. John Meeks, *Culture and Cosmos* 14, no. 1 and 2 (Spring/Summer and Autumn/Winter, 2010): p.186.

#### Conclusion

Kepler's research into astrology was the single most practical application of his astronomical and cosmological theory: to apply harmony for the benefit of all. Both Bodin and Kepler were reformers, and founders of the modern world view, Bodin in the fields of jurisprudence, political science and historical theory, Kepler in astronomy. Both wished to preserve political harmony, a goal which depended on engagement with the wider ecology of the cosmos; this was the application of his hard kernel of astrological truth. Their methodology proceeded through four stages. The first was historical, to examine past correlations between political events and planetary cycles. The second was predictive, to examine future planetary cycles in order to identify periods of political crisis. The third was political, to warn politicians of future periods of potential crisis. The fourth required governments to devise and implement policy, taking appropriate action. His cosmic state would manage dissent by social and political reform where possible, but propaganda and repression if necessary, to forestall violent revolution.

Both Bodin and Kepler had a profound influence on later thought. Kepler, of course, had a huge impact on astronomy and Bodin's concern with environmental factors in politics was to influence Montesquieu, and would surely find a place in modern eco-politics. Yet Bodin's traditional definition of the environment as including the stars and planets took place too soon before astrology's decline to survive with the rest of his work. As Tooley commented, 'the fact that he based his doctrine of environment on a cosmological system which was on the point of being abandoned at the very time he was writing partially contributed to the oblivion which was the fate of this part of his work'. <sup>135</sup>

Bodin and Kepler's reformed astrology can be contextualised work as a form of what Michel Foucault termed the archaeology of knowledge, considering the nature and purpose of their 'world of discourse'. <sup>136</sup> The tragedy of Kepler's reformed political astrology is that, while it provided a significant motive for his remarkable work in mathematical astronomy, it died out when astrology's intellectual credibility collapsed in the latter part of the seventeenth-century. It was partly revived in the twentieth

<sup>&</sup>lt;sup>135</sup> Tooley in Bodin, Six Books of the Commonwealth, xxxix.

<sup>&</sup>lt;sup>136</sup> Michel Foucault, *The Archaeology of Knowledge* (London: Routledge, 2002), p.24.

century, notably by the French astrologer, André Barbault.<sup>137</sup> In general, though, the Bodin-Kepler method of political astrology may be described in terms of archaeology of astrological discourse as, on the one hand, vital for understanding the purpose and application of early seventeenth-century astronomy but, on the other, it has become what Paul Colilli described as an epistemological ruin.<sup>138</sup> Aside from astrology, Bodin's argument that the environment is crucial for understanding politics, aside from being a direct influence on Montesquieu, and his argument that toleration is justified by an understanding of nature would find a safe home In modern environmental politics.<sup>139</sup> Following Bodin's pragmatism, Kepler's cosmic state would manage dissent by social and political reform where possible, but propaganda and repression if necessary.

Bodin and Kepler might all be said to have suffered from one of the deepest and most persistent features of western thought, one central to Christianity's obsession with other worlds, namely a profound dissatisfaction with the world and an existential discontent; a sense that life is a constant struggle with want, disease, oppression and injustice. Max Scheler called it *ressentiment*. But such despair is balanced by the hope that somewhere, perhaps in the future, a better place, a paradise, a heaven or a new golden age, is waiting for us, ready to save us from the world and from ourselves. There are two ideologies associated with this constant interplay of pessimism and optimism. One is millenarianism, the belief that, sometime in the future, the world will be born again. The other is utopianism, the notion that human beings can themselves construct a perfect future.

Millenarianism and utopianism are not the same, but they are linked. Utopias can exist without the belief in a predetermined future which is central to millenarian dreams, but those dreams always look forward to a utopia. Millenarianism prophesies that we will be saved, while utopianism provides solutions by which we may save ourselves. The point about utopianism is that, in order to work, it has to be this-worldly. Bodin and Kepler were both faced with an upsurge in Millenarian thought expressed

<sup>&</sup>lt;sup>137</sup> André Barbault, *Planetary Cycles: Mundane Astrology* (London: Astrological Association, 2016).

<sup>&</sup>lt;sup>138</sup> Paul Colilli, *Agamben and the Signature of Astrology, Spheres of Potentiality* (New York: Lexington Books, 2015), p.37.

<sup>&</sup>lt;sup>139</sup> Patrick Curry, *Ecological Ethics: An Introduction*, revised edition (Cambridge: Polity Press, 2011).

<sup>&</sup>lt;sup>140</sup> Max Scheler, *Ressentiment*, trans. William H. Holdheim (New York: Noonday, 1973).

through those forms of Protestantism which anticipated an imminent arrival of the End Times, the final struggle with Satan and the instigation of God's eternal kingdom, as forecast in 'Revelation', the final book of the Catholic New Testament. 141 However, Bodin and Kepler followed the classical Greek cyclical theory of historical time recurrent periods are measured by the geometrical flow of the cosmos as evident in the movement of the planets. 142 In this model, which we might see as a wave, from peaks to trough and back again, the perfect society exists in a perfect realm but unlike in Christianity, is never attainable. Utopia, simply, is impossible for it suggests that the world will arrive at a state of existence which, being perfect, can be subject to no further change. Perfection, though, remains an aspiration, and in working to attain it the difficult features of decline are mitigated and the positive features of improvement are enhanced. The utopian paradigm in this sense is a work in progress. It has been called programmatic in that it sets the context for a political programme of improvement, with perfection as an eventual, often distant goal. Socialism is one such example.

However in the cyclical model, the final state can never be attained because of the constant change of conditions. Hence utopianism is always a compromised and a matter of making the best of bad circumstances. Utopias are partly contested spaces, even when they have an imaginary location, but because their exist in the future, they exist within a contested timescape. Plato himself straddled the boundary between the possible and the impossible. On the one hand he set out in great detail the rules and regulations by which his ideal republic could be managed by a virtuous, wise and self-aware elite in line with cosmological principles. <sup>143</sup> On the other his perfect city was an Idea, with a capital 'i', that was functionally impossible to realise because human beings, being imperfect, would always destroy it. 'The city whose home is the idea...can be found nowhere in earth...', he wrote, and exists only 'in a pattern...laid up in heaven for him who wishes to contemplate it'. <sup>144</sup> A feature of the Platonic model is that, because time corresponds to the eternally circling planets, as soon as

<sup>&</sup>lt;sup>141</sup> Norman Cohn, The Pursuit of the Millennium (London: Paladin 1970).

<sup>&</sup>lt;sup>142</sup> Nicholas Campion, *The Great Year: Astrology, Millenarianism and History in the Western Tradition*, (London: Penguin, 1994), pp.161–271.

<sup>&</sup>lt;sup>143</sup> Plato, *Laws*, 2 Vols, trans. R.G. Bury (Cambridge, MA, and London: Harvard University Press 1934), book V, V.738B, 745B-C, VI.759B-C.

<sup>&</sup>lt;sup>144</sup> Plato, *Republic*, 592 A-B.

perfection is glimpsed it is lost. In Platonic time theory the movement of the planets signifies constant change:

Wherefore, as a consequence of this reasoning and design on the part of God, with a view to the generation of Time, the sun and moon and five other stars, which bear the appellation of "planets" [i.e., 'wanderers'], came into existence for the determining and preserving of the numbers of Time.<sup>145</sup>

Thus, as soon as a particular state is reached, it must give way to the next in the sequence. Nevertheless, perfection – utopia - remains an aspiration. Plato established the enduring paradox according to which the perfect city can never exist; yet, implicitly, if we have to contemplate it, there must be a reason to do so, and this reason can only be to inspire us to improve society. Is it enough just to contemplate perfection, or should we try to implement it? And if perfection is unattainable is a compromise acceptable? Can we improve so society by the very act of working to create a utopia which might itself be unattainable? That we can try is the foundation of social democracy. The *Harmonice Mundi* is therefore more than a cosmological text: it is one of a series of responses to the political crisis in European culture following the Reformation, and deserves a place in the history of political thought in Europe,

<sup>&</sup>lt;sup>145</sup> Plato, *Timaeus*, 38C.