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The Iris Nebula is a favourite target for many astrophotographers. Shawn Nielson used a Skywatcher Esprit 100 ED APO Triplet and a Moravian G3 16200EC CCD along with Optolong LRGB filters. He also used a Skywatcher EQ6 mount on a Skysched Pier and Sequence Generator Pro (SGP) for acquisition, with PHD2 guiding. The image was then processed using Pixinsight. But this image is particularly special. "What makes this image more interesting is it was shot from a city with Bortle 8 sky. Kitchener, Ontario," Shawn writes. "Kitchener has a population of 240,000+ and is part of a region of cities and townships with a population of over 500,000. Light pollution is a problem that I must contend with within my astro hobby."



The Republic of Letters



by R.A. Rosenfeld, RASC Archivist
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Abstract

The Republic of Letters (16th–18th centuries) was a constructive ideal of cooperative intellectual endeavour that created the space in which meritocratic learned societies such as the RASC could exist. Its legacy includes both modern internet-based amateur astronomical communities with participants located across the globe, and professional big-science projects, such as the Large Hadron Collider (LHC), the Thirty Metre Telescope (TMT), and the Maunakea Spectroscopic Explorer (MSE) with their multi-national personnel. An important early description of the Republic of Letters was by the Carthusian monk Dom Bonaventure d’Argonne (1640–1704), who had an interest in astronomy. His text is notable for its acknowledgment of the legitimacy of female participation in the republic of letters. His essay is translated in full for the first time here.

The Republic of Letters (heyday 16th–18th centuries)

The Republic of Letters, a meritocratic, open, and international community of scholars, was in concept and reality a voluntary commonwealth that flourished chiefly from the 16th to the 18th centuries. As a constructive ideal of cooperative intellectual endeavour, it was a powerfully formative influence in shaping the space in which the earliest meritocratic learned societies existed, such as Accademia dei Lincei (1603–1639), the Royal Society of London for Improving Natural Knowledge (1660), and the Académie royale des sciences (1666–), and their younger siblings, including the Royal Astronomical Society (1820–), and the RASC (1868–). The Republic of Letters can be seen as a direct distant progenitor on the one hand of self-governing internet amateur astronomical communities with worldwide reach, and, on the other, of professional big-science projects, such as the Large Hadron

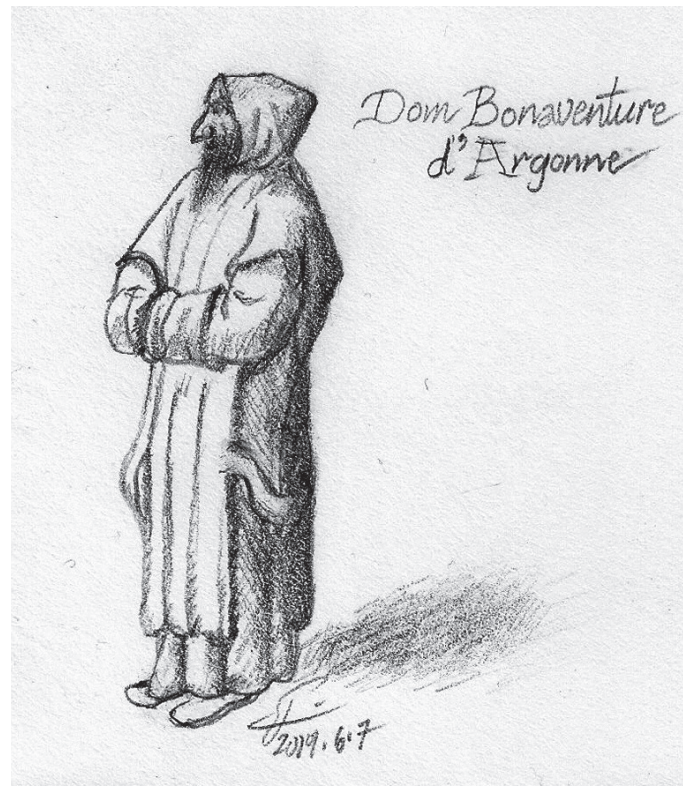


Figure 1 — There are no known surviving portraits of Dom Bonaventure d’Argonne, so one was commissioned for this paper. It shows a speculative Dom Bonaventure in the Carthusian habit of his day. Image reproduced courtesy of the *Specula astronomica Minima*.

Collider (LHC), the Thirty Metre Telescope (TMT), and the Maunakea Spectroscopic Explorer (MSE), with their multi-national personnel. It was a concept of undisputed power and lasting influence, remarkable for a diffuse association that in reality lacked direct control of any of the levers of political power.

An expert on Pierre Bayle (1647–1706), a notable and deservedly apotheosized citizen of the Republic of Letters, has usefully characterized it as follows:

“The expression [Republic of Letters] was used...to refer to the shared pursuit of knowledge for the common good, and it never lost this primary meaning, although it was invested over time with other meanings and symbolic powers of representation.... Scholars such as Erasmus also thought in these terms, seeing themselves as citizens of the world...and members of the *respublica litteraria*, which united all like-minded people everywhere, past, present, and future. The Republic of Letters was, then, a conceptual space defined in terms of cosmopolitanism and universality.... It was, however, also an actual space defined by a common language, Latin (the language of education in this period), networks of communication, and cooperative enterprise. Although scholars did travel between different centers of learning and acted as vectors of information, communication was for the most part by correspondence” (Whelan 2003, 437).

The October *Journal* deadline for submissions is 2019 August 1.

See the published schedule at

www.rasc.ca/sites/default/files/jrascschedule2019.pdf

An excellent introduction to the history and meaning of the concept was published by Tony Grafton in 2009, and is available online (Grafton 2009; a similar, though less far-ranging treatment is in Waquet 2017; and for some oddly illuminated corners of the concept, see Daston 1991).

The Republic of Letters depended in every respect on intellectual interchange. The sites for local face to face discourse were as various as "...printing shops, salons, museums, libraries, schools, universities, and, academies," while over further distances "The international networks of men of letters were knitted together by correspondence and publications, and by travelling scholars" (Dixhoorn & Sutch 2008, 12). Looking back over the broad course of the Republic, the letter appears as the essential technology for communication. A direct line of descent can be discerned from the handwritten letter, to the typed letter, to email and latter modes of electronic communication (Potts 2011). And a letter was frequently more than just a letter in our sense; a manuscript letter was another legitimate form of publication alongside the printed word. Some treatises in epistolary form enjoyed a wide circulation in manuscript before they were ever printed, and some were never set in type at all (such as Copernicus's *Commentariolus*; Copernicus 1985, 75).

Astronomers were certainly part of the Republic of Letters from its early modern rise (see above, and Mosley 2007, 33–38). It is likely that nearly every attempt to bestow or attract astronomical patronage, call to join a research group, invitation to exchange views on research questions, request for or offer of data, support or criticism of a theory, gift of books or instruments, and well- or ill-mannered prosecution of an academic dispute, can best be read as transpiring within the context of the Republic of Letters. Even figures who we do not now view primarily as astronomers, could take part in the discussion of astronomical topics. Sticking to cometography alone, Pierre Bayle, mentioned above, who is usually thought of as a philosopher and proto-encyclopedist, first rose to prominence with his *Lettre sur la comète* (1682), subsequently expanded into the *Pensées diverses sur la comète* (1683), both editions of which argued against popular superstitious interpretations of celestial events as supernatural omens, among a manifold host of other matters. And Dr. Charles Burney, the great Georgian musicologist, published a treatise on modern comets in 1769 (he was a good friend of William Herschel; Burney 1769). This was, after all, the age of the polymath.

One of the most often-cited descriptions of the Republic of Letters in modern secondary literature is by the Carthusian monk Dom Bonaventure d'Argonne (1640–1704), an exact contemporary of Bayle's. Dom Bonaventure, like Bayle and Burney, had an interest in astronomy—he even collected telescopes at one time. His text is notable for its acknowledgment of the legitimacy of female participation in the common-



Figure 2 — Moon rise over the Grande Chartreuse, the mother house of Dom Bonaventure's order. It was remotely sited to give the monks some solitude. Carthusian houses could be located in urban areas, but the monks everywhere habitually led austere and mostly solitary lives. Miraculously, Dom Bonaventure avoided being intellectually isolated, or remote from the intellectual life of his contemporaries. Image reproduced courtesy of the *Specula astronomica Minima*.

wealth of intellect. Most readers of the *Journal* would not expect a monk to take that stand. Who was Dom Bonaventure?

Dom Bonaventure d'Argonne, O.Cart.

The Carthusian order, founded by Bruno of Cologne in 1084, was among the most austere forms of the coenobitic life. In the 16th to 18th centuries, when it seems all forms of monasticism were under attack from numerous quarters, and not just Protestant ones, and charges of decadence were not infrequent, the Carthusian was one of the few orders that was not thought to be in need of reform. The other side of that coin is that one rarely hears of any Carthusians having played an active role in the Scientific Revolution, or Enlightenment. One expects to read of Benedictines, Servites, Minims, and Jesuits actively contributing to natural philosophy as part of the literary scene, but not Carthusians. Except for Dom Bonaventure.

Dom Bonaventure is chiefly remembered today for his role in a literary quarrel outside the sciences, but he was a many-sided figure with competencies in the sciences as well as the arts (and he was hardly unique in that regard, if one thinks of Marin Mersenne, Athanasius Kircher, and Bernard de Fontenelle, to name a few). His modern biographer notes that Dom Bonaventure was familiar with the "...discoveries

and theories of Bacon, Boyle, Hooke, and Newton, and the activities of the Royal Society...”, and, while on a version of the Grand Tour, in contrast to his companions who spent their money on clothes, he bought telescopes and microscopes (Rountree 1980, 56–57). He was at home with the cosmologies of Descartes and Gassendi, and probably knew the latter personally (Rountree 1980, 149). And he was said to have “...strongly disapproved of the attitude of the church in the Galileo affair...” (Rountree 1980, 74). In some respects, he almost seems like a figure from the mid- to later-18th century: “So intent was he to reform, to bring a new liberalism, a new flexibility onto pedagogy, so anxious was he to wage war on pedants” (Rountree 1980, 79).

Dom Bonaventure on the Republic of Letters

“The Republic of Letters is very ancient.¹ It seems that this Republic existed before the deluge, on the testimony of the columns mentioned by Josephus, on which all the principles of all the sciences were engraved.² At least one knows not to deny that soon after this great catastrophe, the sciences neither blossomed forth in the world, nor were much advanced.

The Republic has never been greater, more populous, more free, nor more glorious than it is now. It extends throughout the Earth, and is comprised of people from all nations, of every condition, of all ages, and of all sexes—women are no more excluded than the young. All kinds of languages are spoken there, living and dead. The sciences are joined to the arts, and manual works have their place; but religion is not consistent, and the morals, as in all the other Republics, are a mix of the good and the bad. One finds piety, and licentiousness.

The politics of this state are conducted more through words, in the form of maxims and vague reflections, than through actions and things. The populace derives all its strength from eloquence and reasoning. Its trade is entirely spiritual [*i.e.* intellectual³], and its riches are very meagre. It strives after glory and immortality, above all things. The magnificence of the vestments is not very great, and there are few cases of people who work only out of avarice, or to gain sustenance [*i.e.* the citizens of the Republic of Letters till its fields out of love rather than for material gain].

There are sects there in great number, and new ones form every day. The entire state is divided between philosophers, doctors, theologians, jurists, historians, astronomers, orators, grammarians, and poets, who each have their particular customs.

Justice is administered there by the critics, often with more severity than judgement. The populace has much to endure from these people, chiefly when they are punctilious⁴ and visionary. They reduce, cut, or add as it pleases them; and no author can answer for his destiny when once he falls into their hands. When they [the authors] emerge, they are so cruelly ill-treated and mutilated, that they lose their sense, and reason.

The trouble which they [the critics] give to authors to make them speak the truth, ordinarily serves only to make them speak against their intent, and their conscience.

Shame is the greatest torture for those culpable, and, in this land, the loss of one’s reputation is the loss of life. And yet there are some who are shameless, and some ‘knights of industry,’⁵ who permit themselves to live at the expense of others; and some scroungers, who take the good portions, and snatch the bread from the hands of meritorious people.

The Public distributes the glory—but often with much blindness, and too much haste. This causes great complaints, and excites unfortunate murmurings in the Republic.

The dominant vices of this state are presumption, vanity, arrogance, jealousy, and gossiping. There reigns also a nearly incurable illness, which is called Fame, which desolates the entire country.

This Republic also has the misfortune to be infected with plagiarists, who are a species of bandit despoiling the countrymen. The corrupters of books and forgers, all very dangerous people, include rhapsodic schemers, and worthless fortune tellers entirely dependent on the public.

There one can find an infinity of the illustrious idle, and of the voluptuous, who seek out only readings concerning pleasure, who live off the state, and contribute nothing towards either its progress, or its glory. There are misanthropes, born werewolves, and pedants who are the terror of small infants, and the enemies of courtesy and decent manners.⁶ There are found some among them, nevertheless, who have merit, concealed as under the skin of an ass, their cheerfulness under the skin and the form of the most stupid of all the animals.

I will not treat of the debauched of the Republic, those who have engineered their own untimely demise through quarrelsomeness of spirit, and excess of study; nor of certain ones who are so delicate that they know not how to endure anything,⁷ nor of visionaries who revel in hollow fancies, and false systems. All this ought to be assumed in a Republic as vast as that of the Republic of Letters, which all sorts of people are permitted to reach, and to inhabit in imagination;” d’Argonne 1713, 67–71.

Dom Bonaventure’s essay is notable, beyond the fact that it was penned by a Carthusian who was a citizen of the Republic of Letters. It offers a candid and not uncritical view of the community. There is a gentle hint of possible satire in some of it, but on the whole, the good of the concept outweighs the negative. Most striking is that dom Bonaventure considers the Republic of Letters in his day to be at a pinnacle. Membership is open to all, and national identity, social position, wealth, gender, and age form no barriers to participation. The ideal is cooperation in pursuit of knowledge. It is a concept which a century and a half later made it possible for four members

of the working class to join forces with four members of the modest middle class in 1868 Toronto to form the group that in time became the RASC. And which encouraged full female participation in the pursuit of science before the franchise was won by women in the political sphere. It's a concept that is the embodiment of international cooperation, strives for fact-based judgement, and disinterested research. It is the very anthesis of narrow populism, destructive nationalism, and worse trends. And it has a clear timeliness for the present. *

Acknowledgments

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(accessed 2019 June 4)

Endnotes

- 1 According to Grafton, the concept became a reality *ca.* 1500 (2009, 1), while Waquet states that the first recorded use of the term dates to 1417, but that the “modern” meaning of the term is not fully found till the end of the 17th century (yet she cites convincing evidence that this happened in the century before; 2017, 66–67). Dixhoorn & Sutch (2008), and their colleagues experiment with finding the origins of the republic of letters as early as the late 12th century in Northern Europe—with variable success. Br. Bonaventure's discovery of the concept in early biblical history is a type of backdating not uncommon to his era.
- 2 The story as recorded by Josephus in his *Jewish Antiquities* is as follows; “...they [Adam's grandchildren] also discovered the science of the heavenly bodies and their orderly array. Moreover, to prevent their discoveries from being lost to mankind and perishing before they became known—Adam having predicted a destruction of the universe. at one time by a violent fire and at another by a mighty deluge of water—they erected two pillars, one of brick and the other of stone, and inscribed their discoveries on both; so that, if the pillar of brick disappeared in the deluge, that of stone would remain to teach men what was graven thereon and to inform them that they had also erected one of brick. It exists to this day in the land of Seiris[!];” Josephus, 1930, 5, I, 32–33, ls. 70–71.
- 3 “SPIRITUAL, is also said of an enlightened SPIRIT, and of one who possesses excellent wisdom and excellent knowledge. A person is very SPIRITUAL, who possesses much SPIRIT. [E.g.] The invention of clocks is very SPIRITUAL, very ingenious;” Furetière 1690, 2, n.p.
- 4 Punctilious (*vétilleux*), that is to say, those who possess a mediocre spirit, *e.g.* “This man is someone of small spirit, who is only amused by trifles and trivialities;” Furetière 1690, 2, n.p. It is in some respects the opposite of those who are ingenious (see note above). Visionaries (*visionnaires*) are those who act extravagantly, *e.g.* “Visionary...he who is subject to visions, to follies, and to faulty reasoning;” Furetière 1690, 2, n.p.
- 5 “They are proverbially called Knights of Industry, men who possess no worldly goods, who subsist by their adroitness and industry, as swindlers, flatterers, despoilers, and advisors;” Furetière 1690, 1, n.p.
- 6 One might be tempted to see these as ancestors of the modern internet troll.
- 7 The modern insult “snowflake” does not appear to have been in use at the time.

I'd like to bring to readers' attention a source I'd missed in *The Pleiades, the Deluge, and the Dead: How the RASC Became a Publisher of Anthropology in the Service of Theology*, JRASC 113, 3 (2019 June), 98–104. In response to Chant's serial reprinting of Haliburton's treatise, Dr. Herman S. Davis recounted his encounters with Haliburton in C.A.C. (1920). *Recollections of R.G. Haliburton*, JRASC 14, 2, 84–87. I wish to thank Dr. Donald C. Morton for this reference.” *Recollections of R.G. Haliburton*, JRASC 14, 2, 84–87. I wish to thank Dr. Donald C. Morton for this reference.