

## BOOK REVIEW

***Abraham Gesner: the Lure of the Rocks and a Burning Ambition.***  
**E.V. Haigh. 2019. Tellwell Talent, Victoria, BC. 388 pp.**

If you are concerned about climate change, you should be interested in the history of geoscience. The early history of geology includes the people and places that have shaped the modern view of our world. In Nova Scotia, the history of geology during the colonial period (1820-1860) features the adoption of new worldviews, fueled by advances in how science was communicated and shared around the world. With our ongoing social adaptation to the new worldview of climate change, and the rapid changes in communication through digital media, these are exciting times to look back at the history of geoscience for some insights.

If you are someone interested in the geology of the Maritimes, you likely know the name Abraham Gesner and some of his history. Gesner was a physician-geologist, as well as the inventor of kerosene. However, if you wish for a more complete picture of this important person in the history of Nova Scotia geology, take time to read this new biography by Elizabeth Haigh.

I was initially attracted to it because of Gesner's connection to Parrsboro, as physician from 1826-1836, but also because Gesner was appearing along the fringes of other historical projects that I have been working on. For example, while preparing a summary of Mastodon discoveries in Nova Scotia, I noticed that Gesner gave a talk to the Halifax Mechanics' Institute on Wednesday, November 9, 1836, speaking on "*The Coal Fields of Nova Scotia*" (Fig 1). This was the week after the "thigh bone of an immense animal – supposed to be a Mammoth" (we now know it is a Mastodon) was first put on public display. Gesner surely saw the important new fossil discovery when he gave his public lecture in Halifax. Gesner seems to be everywhere you turn while researching the history of Nova Scotia geology during this period.

The book is filled with insightful histories and intersections between geology, exploration, and collaborations with the indigenous Mi'kmaq and Maliseet. I was particularly interested in information about Gesner's publications and his ambitious entrepreneurial spirit.

The Mechanics' Institute opened last evening (Wednesday) with an excellent introductory Paper from John Young, Esq. Dr. Gesner is to lecture on the Coal Fields of the Province, next Wednesday evening. Several valuable presents were exhibited to the audience—a thigh bone of an immense animal—supposed to be a Mammoth—found in Cape Breton, and sent by Peter Hall Clarke, Esq. This will form a curious and valuable addition to the Museum. A model of the Avon Bridge, forwarded by Mr Warren, the engineer, through Mr James Dichmont; and a model of a Safety Raft or Life Preserver, given by Capt. Watson.—*Ib.*

Fig 1 The Acadian Recorder, Saturday November 5, 1836. Nova Scotia Archives.

The biography provides a richly researched and lively narrative that conveys the diverse and exciting life lived by Abraham Gesner, with many new historical insights.

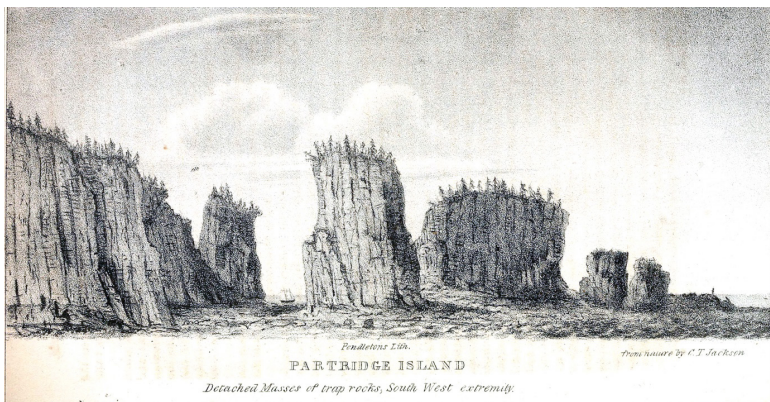
As Elizabeth mentions in her introduction, she has been interested in Abraham Gesner for many years. Indeed, we can trace her interest back at least thirty years when she gave a presentation about Gesner at the *Science and Society in the Maritimes* conference in 1988. Her book presents the findings of her long-time interest in Abraham Gesner, including his work in New Brunswick, completing a geological survey and working closely with Maliseet guides, as well as detailed history with the Mi'kmaq in Parrsboro and later during his time as Commissioner of Indian Affairs in Nova Scotia from 1848-1849. The biography is also filled with many small gems that can spark a richer appreciation of the time and the person, the physician, entrepreneurial geologist, and inventor.

One might ask - why is the history of geology important? As mentioned above, it seems especially helpful for us today as we see the growing social acceptance of climate change science. As we examine this earlier period in the history of geology, we find debates about the age of the earth, and evolution would begin to gain social acceptance. Gesner and other geologists who visited Nova Scotia, such as Dawson,

Honeyman, Harding, and Webster, were following Charles Lyell, famed for his book *Principles of Geology* (1830-1833), and were moving away from scripture to discover the story of natural history in the rocks along the shores of the Maritimes. It seems today that the history of these changes in worldview is similar in magnitude to the changes and adaptations that will be required today by society as we address climate change.

Gesner was a physician in Parrsboro from 1826-1836 and he used this time travelling the local landscape to explore the region's geology. Parrsboro was closely tied to Windsor at the time, because of the importance of the shipping route through the Minas Basin from Windsor, Nova Scotia, to Saint John, New Brunswick. While in Parrsboro, Gesner met and befriended two Americans, Jackson and Alger, while they were surveying the area for minerals. This relationship would establish a challenge for Gesner's future reputation as an author.

Haigh's biography provides a detailed summary of the legal and political challenges that affected Gesner after he published his *Mineralogy of Nova Scotia* in 1836 – a volume that was very similar to the works published just before by Jackson and Alger. Legalities aside, both of these documents provide the earliest geology maps of Nova Scotia, as well as early scenic vistas of this important geological area (Fig 2) that has recently been nominated for recognition by UNESCO as the *Cliffs of Fundy Aspiring Geopark* (<http://fundygeopark.ca>).



**Fig 2** Large fold out lithograph image of Partridge Island, drawn “from nature by C. T. Jackson”, in report by Jackson and Alger (1832).

Spending time with the Nova Scotian history of geology provides insights into the cultural and social changes happening with concepts of geological time, evolution, and the changes to worldview that come with these new perspectives. Of course, there were economic interests largely centered on the mineral resources of coal, iron, and later gold. However, the early history of geological science in Nova Scotia involved an important period of natural science, as Charles Lyell published his highly influential tome and later visited Nova Scotia in 1842, when he would meet Gesner among others.

The book ends with the “Golden Years”, a shockingly traumatic time for Gesner, who was living in New York from 1853 until around 1862, while the American Civil War raged around him. I have been conducting other research into this important time related to the discovery of gold, and Rev. David Honeyman who represented Nova Scotia at the London International Exhibition. In this work, I had not previously come across the paper “The Gold Fields of Nova Scotia” that Gesner published in 1862, which Elizabeth describes in her final chapter. Gesner stated that the paper was “Communicated to the Geological Society”. However, I have not been able to find any record of this document in their archives or published proceedings. Rather, it seems likely that Gesner self-published this work by using the New York printer J. P. Prall, whose promotional material is listed in the American Advertiser in 1850 (Fig 3).

The document, The Gold Fields of Nova Scotia, that Elizabeth describes in her final chapter is very rare. Only two copies of this

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PRINTING.—RELIGIOUS NEWSPAPERS.

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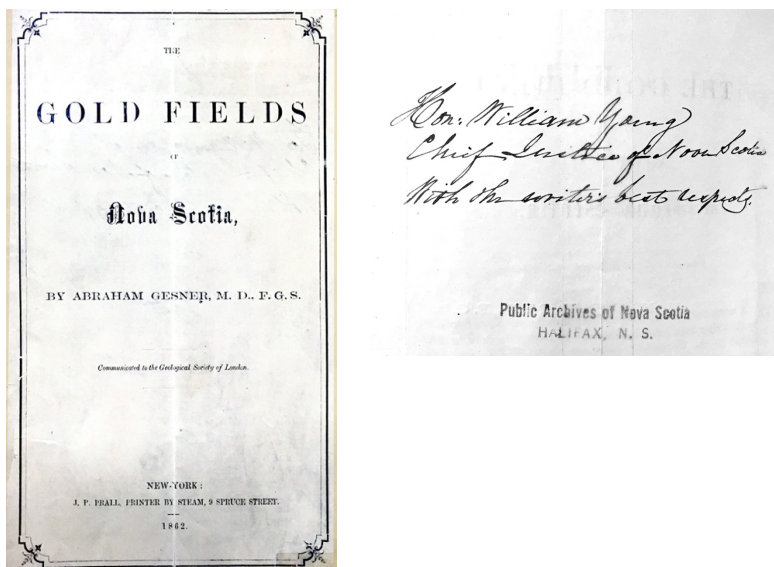
**J. P. PRALL,**  
**BOOK & JOB PRINTER**  
 AND STEREOTYPYER,  
**No. 9 SPRUCE-STREET,**  
 NEW-YORK.

The attention of Periodical and Book Publishers is respectfully called to his BOOK Department. Having furnished his office with the newest styles of JOB TYPE, he is now able to execute

BILL HEADS, BILLS OF LADING, BANK CHECKS,	BANK NOTICES, CARDS, CIRCULARS,	INSURANCE POLICIES, BLANKS of all kinds, &c. &c. &c.
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Fig 3 J. P. Prall Printer, listed in American Advertiser, 1850.



**Fig 4** Cover page of Gensner's 1862 printed report, titled "The Gold Fields of Nova Scotia", addressed to Hon. William Young as a note, hand-written by Gesner on the inside cover.

document are known, and both are in the Nova Scotia Archives. A note hand-written by Gesner in one of these copies (Fig 4) was addressed to "Hon. William Young, Chief Justice of Nova Scotia, With the writer's best respects."

The short paper by Gesner provides an overview of the gold fields of Nova Scotia. However, there is something about the tone and details that are similar to "The Gold Fields of Nova Scotia" published by O.C. Marsh in November 1861, and also mentioned in the January 1862 issue of *Scientific American*. Marsh had visited Nova Scotia in August 1861, finished and submitted his report in October, which was then published the following month. A copy of the Gesner paper was printed by J. P. Prall in January 1862, and apparently also sent to *Scientific American*, to be later mentioned in the February 15 issue.

Could it be that Gesner again took liberties with his publication by reworking Marsh's 1861 report in order to re-establish opportunities in his home province of Nova Scotia? The copy in the Nova Scotia Archives was addressed to William Young, who would have had knowledge about Gesner's previous challenges associated with Jackson and Alger. So, perhaps Gesner's paper printed by Prall was

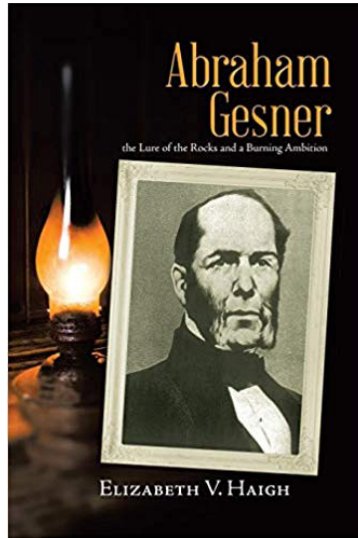


Fig 5 Elizabeth V. Haigh. 2019. *Abraham Gesner: the Lure of the Rocks and a Burning Ambition*.

received by Young with some scepticism. Regardless, other Nova Scotians were already busy promoting Nova Scotia gold fields at this time, with David Honeyman organizing exhibits for the London International Exhibition. Gesner's note became lost until Elizabeth uncovered this and other historical gems during her research.

History comes to life if you imagine what it might have been like for Abraham Gesner, a Nova Scotian doctor and entrepreneurial geologist, to find himself and his family in New York city in 1860 during the convulsions of the American Civil War. One can only wonder - was Gesner one of the 1,500 that heard Lincoln's *Cooper Union Speech* on February 27, 1860?

Gesner did return to Nova Scotia during this time and was an important voice for the establishment of the *Nova Scotian Institute of Science (NSIS)*. Gesner read "*Gold and its Separation from Other Minerals*" to the new group in May of 1863, and his paper was published in the first printed issue of the Institute's Proceedings in 1867, several years after his death.

This biography (Fig 5) is a triumph of scholarly research conveyed with an engaging narrative that explores this fascinating person, his communities, challenges and unending determination. It shines a



bright light on Gesner and an important period of Nova Scotia geology. It will undoubtedly be a source of inspiration for more insights about this time and Gesner's contributions.

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