

## AUGUST FREDRIK SOLDAN: A FINNISH SCHOLAR AT DELAWARE COLLEGE IN 1849-1850

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A little more than one hundred years ago, on October 19, 1849, August Fredrik Soldan, Finnish chemist, engineer, and philosopher, arrived in Newark, Delaware, at the invitation of William Augustus Norton, Professor of Mathematics and Natural Philosophy at Delaware College,<sup>1</sup> whom he had met the year before in Paris.<sup>2</sup> Soldan had been referred to Norton by John Addison Porter, a former Professor of Rhetoric and Modern Languages, and Tutor in Mathematics, at Delaware College.<sup>3</sup> Soldan and Porter had become acquainted at the University of Giessen in Germany, where both had enrolled in 1847 as students of chemistry under the famous Justus von Liebig.

August Fredrik Soldan, the son of Ulrika Lucander and Karl

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<sup>1</sup> William Augustus Norton, a graduate of West Point, and an officer in the Black Hawk War, was Acting Professor of Natural Philosophy and Astronomy in the University of the City of New York from 1833 to 1838. In 1839 he was appointed Professor of Mathematics and Natural Philosophy at Newark College, which position he held until February, 1850, when he became President of Delaware College, as Newark College was called after 1843. After resigning from the presidency of Delaware College in August, 1850, Norton served as Professor of Natural Philosophy and Civil Engineering at Brown University from 1850 to 1852, and as Professor of Civil Engineering at Yale College from 1852 until 1883. See George W. Cullum, *Biographical Register of the Officers and Graduates of the United States Military Academy at West Point* (3rd ed.; Boston and New York, 1891), I, 473.

<sup>2</sup> Juhani Aho, *Aatteiden Mies: Piirteitä August Fredrik Soldanin Elämästä* (Porvoo, 1901), p. 193.

<sup>3</sup> John Addison Porter was a graduate of Yale College in the class of 1842. After leaving Yale, he studied one year at home in Philadelphia, and then for a few months in New Haven. He served first as Tutor and afterwards as Professor of Rhetoric in Delaware College from May, 1844, to July, 1847. Upon his return from Germany, where he studied from 1847 to 1849, Porter became an assistant in chemistry at Harvard for a short time. In September, 1850, he was appointed Professor of Chemistry Applied to the Arts at Brown University, where he remained until 1852, in which year he was invited to the Yale (later Sheffield) Scientific School as Professor of Analytical and Agricultural Chemistry. In July, 1856, Porter was appointed Professor of Organic Chemistry in the Sheffield Scientific School, and he held this position until 1864, when he was forced to resign by failing health. See *Biographical Record of the Class of 1842 of Yale College* (New Haven, 1878), p. 146.

Gustaf Soldan, was born July 13, 1817 at his father's Helylä estate near Sortavala, Finland.<sup>4</sup> He attended the cadet school in Fredrikshamn, Finland, and was commissioned an officer in the Russian Army. Then followed two years of study in the Engineering School at St. Petersburg, after which he spent several years as an engineering officer employed in the construction of military fortifications. In 1843 he became instructor in chemistry at the St. Petersburg School of Engineering, where he served until 1847, in which year he won a stipend for further study of chemistry at Giessen. Soldan left St. Petersburg on July 4, 1847, and after a circuitous journey interrupted by a month's stay in Berlin he reached Giessen on October 28, 1847.

Soldan was eager to settle down to his studies in Giessen, and he was hard at work in von Liebig's laboratory within a few days after his arrival in the university city. As the months went by, however, and his work progressed, he began to look forward to his future career as professor of chemistry at St. Petersburg with some misgivings. But just as he was becoming resigned to his fate, from France came the news that Louis Philippe had fled. Here was something to stir the blood of a young man faced with a future full of dull professorial cares. Gripped by the revolutionary spirit that raced like wildfire from France over all Europe, Soldan left his studies at Giessen and sped to Paris. In the heat of emotion, forgotten were his obligations to the Czar of all the Russias.

Soldan left Germany in March of 1848, his departure unknown to all but two of his most intimate friends, John Porter and Franz Bopp, and reached Paris in time to participate in the revolutionary events of April. Like so many others, Soldan was soon disillusioned by the outcome of the revolt; and though he regretted the rashness of his act, his pride would not allow him to admit his mistake. Since leaving his work at Giessen to join the revolution in Paris constituted an offense against the Russian government, he suddenly found himself an exile confronted with the problem of making a livelihood in a strange world. Determined to make his own way as best he could, he wrote to John Porter at Giessen instructing him to take care of the books he had left behind, and otherwise brought to a close his affairs at the German university.<sup>5</sup>

It was under these circumstances that Soldan, at the suggestion

<sup>4</sup> Aho, p. 7.

<sup>5</sup> *Ibid.*, p. 127.

of Porter, looked up Norton in Paris. Norton immediately befriended the Finnish scholar, and urged Soldan to accompany him to the United States, where he promised to secure him a teaching position in Newark. Soldan had enough money to pay for his trip to America, but he declined Norton's offer, only to regret his impulsive decision later. After his departure from Paris, Soldan crossed the English Channel to London. From England he sailed to Norway, and spent a whole year wandering about in that country and in Sweden. Unfavorable conditions in Scandinavia convinced Soldan that he should have heeded Professor Norton's kind advice. Soon after his arrival in Norway, he decided that his future was in the United States; during the year in Scandinavia, he made the necessary preparations for the voyage.

In the fall of 1849 Soldan, or Dalsen as he called himself during his sojourn in America, landed in New York. The day after his arrival he sought out Charles F. Harris, whom he had met at Giesen, and who had a chemical laboratory in New York. Soldan stayed with Harris for three weeks while he tried to find work in lithographical and typographical establishments in New York. Although he had excellent recommendations, the stream of immigration was already so great that he found it well-nigh impossible to get any kind of employment. Consequently Soldan, unwilling to impose himself any longer on Harris, communicated with Professor Norton of Delaware College. The result was an immediate invitation to come to Delaware.

Soldan stayed in Newark from October, 1849 until July, 1850. During this time he taught chemistry, French, and drawing at Delaware College, then a degree-granting institution combining preparatory and collegiate departments. Unfortunately, there is no definite evidence to show whether he was connected with the college itself or with Newark Academy, the preparatory department of Delaware College.

The first few months in Newark were not very happy ones for Soldan. He found Delaware College in difficult financial straits and with an enrollment of only thirty students. In his letters to friends Soldan compared Delaware College not to a European university but rather to a Finnish *gymnasium*. Soldan was dissatisfied with the small salary which he received, and he disliked intensely living in the same building with the students. His small, untidy, and incommodious room prevented him from working to

best advantage, and he narrowly escaped death by coal gas asphyxiation shortly after taking up residence in Newark. On numerous occasions Soldan felt as though he had returned to his own student days at the cadet school.

Lonely and homesick, Soldan at first found it difficult to adjust himself to his new environment. Newark, at that time a small country town with a population of six hundred people,<sup>6</sup> the majority of whom were orthodox Presbyterians and Methodists, was not an ideal place for a man who was involved in philosophical speculation and troubled by the problem of reconciling religious beliefs and science. During his stay in Newark, however, Soldan, in addition to his teaching, diligently pursued his own intellectual interests. His journals bear evidence of his contemplations on many subjects, perhaps the most interesting being his anticipations of Darwinism as recorded in the journal which he kept in Newark in 1850.<sup>7</sup>

As the weeks and months passed by, Soldan gradually became accustomed to his new life in America. He was particularly impressed by the freedom of movement and the democratic institutions in the United States, which were in strong contrast to what he had left behind in Russia. His morale was considerably improved, too, when he found himself more pleasant living quarters, in which he could devote himself to his studies without interruptions from students. Finding people in Newark courteous and friendly, Soldan ventured out into their midst. In a newly established confectionary shop in Newark he mingled with some of the young ladies and their teachers from the local "female seminary."<sup>8</sup> At the Nortons' he met Susanne Gilbert, daughter of Dr. Eliphalet Wheeler Gilbert, former president of Delaware College, and they frequently spent musical evenings together, Susanne at the piano accompanying Soldan's violin selections.<sup>9</sup>

In January, 1850, John Addison Porter's return to America from Europe greatly cheered Soldan. Porter, who had begun teaching chemistry at Harvard College, wrote to Soldan from Cambridge on January 29, 1850:

<sup>6</sup> *Ibid.*, p. 193.

<sup>7</sup> *Ibid.*, p. 209.

<sup>8</sup> *Ibid.*, p. 194.

<sup>9</sup> *Ibid.*, p. 212.



. . . I had not at the time heard of your arrival—it was a most joyful surprise to me—the idea had entered my mind that you might, perhaps, be in America—how I should like to see you—your coming is all for the best—it will result well—how does it seem to go to Church every Sunday—you find a good many things strange I fancy. We must have that Wetzlar walk over again—from Newark down to Elkton would do—<sup>10</sup>

Apparently in response to Soldan's expressed fear that the knowledge of his real name in America might lead to his seizure by the Russian government for desertion from the army, Porter reassured his friend by writing:

I don't believe you need feel the slightest apprehension in having your real name known—in the first place I do not think the government would even promise to give you up if demanded—I know that if the government did promise it, the promise would never be fulfilled—any part of the country would rise in arms before they would allow it—you could only be benefited by the attempt—not ignored.<sup>11</sup>

Porter was solicitous about his Finnish friend's welfare, and gave him much good advice which Soldan later followed.

In addition to renewing his friendship with Porter during the spring of 1850, Soldan made the acquaintance of a kindred soul whose sympathetic understanding greatly eased his years in America. This man was Adolphus Ludwig Koeppen, the famous Danish archaeologist and historian, who had come to the United States in 1846 after a long residence in Greece, where he studied Greek history and archaeology. Upon his arrival in America, the distinguished Danish scholar began lecturing before huge and receptive audiences. He delivered lectures, mainly on ancient and medieval history, before such well-known organizations as the Historical Society of Pennsylvania in Philadelphia, the Lowell Institute in Boston, and the Smithsonian Institution in Washington, D. C. In the spring of 1849 Koeppen, who also appeared before many college audiences, had been considered for a professorship at Delaware College. In a letter to a correspondent in Newark, Koeppen remarked that while his lecturing before the public had been very pleasant, it had been his greatest desire to become permanently attached to a college, where if possible he might combine an-

<sup>10</sup> Letter from John Addison Porter to "Herr Dalson" in the State Archives in Helsinki, Finland.

<sup>11</sup> *Ibid.*

cient history and geography with one or both of the ancient languages, since college students, he felt, were more able to understand and appreciate the depth and accuracy of the historical and classical part of his lectures.<sup>12</sup> For reasons that are not clear in the record, Koeppen was not appointed to this professorship.<sup>13</sup> Even though they were not destined to be colleagues at Delaware College, Koeppen and Soldan met in Philadelphia in 1850, and Koeppen's steadying influence helped to make Soldan's spring in Newark far happier than the fall had been.

Although Soldan's connection with Delaware College came to a close in July, 1850, it did not mean the end of his relationship with men closely associated with Delaware College. In the fall of 1850 Soldan became an assistant instructor in chemistry under Professor Eben Norton Horsford at Harvard. Professor Horsford, a graduate of the Rensselaer Polytechnic Institute,<sup>14</sup> had been appointed lecturer in chemistry at Delaware College in 1843, and two years later had gone to Germany in order to study analytical chemistry under Justus von Liebig at Giessen. On his return to the United States early in 1847,<sup>15</sup> Horsford was appointed Rumford Professor and Lecturer on the Application of Science to the Useful Arts at Harvard University, but was almost immediately transferred to the newly established Lawrence Scientific School. The laboratory at the Lawrence Scientific School, which seems to have functioned without any dependence upon the chemistry department of Harvard College, was one of the first in the United States to be equipped for the systematic instruction of analytical chem-

<sup>12</sup> H. M. J. Klein and Richard D. Altick, *Professor Koeppen: The Adventures of a Danish Scholar in Athens and America* ("Franklin and Marshall College Series," I [Lancaster, Pa., 1938], 17). A rough draft of Koeppen's letter to an unknown correspondent in Newark is preserved in the Fackenthal Library of Franklin and Marshall College.

<sup>13</sup> While lecturing in Providence, Rhode Island, Koeppen became the catalyst which brought about the famed Brown Rebellion of 1851, in which three professors resigned, and Brown's loss of former Delaware Professors William A. Norton and John A. Porter became Yale's gain. See Walter C. Bronson, *The History of Brown University, 1764-1914* (Providence, 1914), pp. 286-87. In 1851 or 1852, Franklin College called Koeppen to Lancaster, Pennsylvania, but it was not until March 2, 1853 that his appointment as Professor of German Literature, History, and Aesthetics at the newly consolidated Franklin and Marshall College became official. See Klein and Altick, p. 20.

<sup>14</sup> Henry B. Nason (ed.), *Biographical Record of the Officers and Graduates of the Rensselaer Polytechnic Institute, 1824-1886* (Troy, 1887), p. 228.

<sup>15</sup> Professor Horsford left Giessen many months before Soldan's arrival at the university, so that he could not have met the Finnish chemist in Germany.

istry to individual students. In this laboratory, which exerted a profound influence on the development of analytical chemistry in America, Soldan worked for one year under Professor Horsford.<sup>16</sup>

So ends the story of Soldan's association with Delaware College and with the noted scholars and educators who had been colleagues there during the period of Dr. Eliphalet Wheeler Gilbert's second term as president from 1840 to 1847, the "golden era" of Delaware College. But this is by no means the end of Soldan's career in America. After teaching the academic year 1850-1851 at Harvard, Soldan devoted himself to many other interests during the seven years before his departure for Europe. He taught for a short time in a young ladies' school, served as a private tutor in a wealthy New York family, received a patent on an invention for evaporating milk, worked for the Pennsylvania geological survey, and established himself as a civil engineer, rendering invaluable services to various land and railroad companies in Pennsylvania. Having been promised a general pardon from the Czar of Russia if he would return to Finland, Soldan, homesick and in poor health, left the United States in 1858.<sup>17</sup>

<sup>16</sup> *A Catalogue of the Officers and Students of Harvard College, for the Academical Year 1850-1851* (Cambridge, 1850), p. 71, lists Lieutenant August Dalson as first assistant to Professor Horsford.

<sup>17</sup> An article treating Soldan's career in the United States after leaving Delaware College is in preparation.