

THE EARLY LIVES AND COURTSHIP OF JANE AND ALEXANDER MARCET

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Abstract

Jane and Alexander Marcet were early popularizers of the new chemistry which developed early in the nineteenth century. Their relationship was influenced by their common Genevan francophone family roots. In addition to the importance it had for the two individuals, their relationship was important through their influence on contemporary science in London. Jane was admired by, and known to, Michael Faraday, she also knew Humphry Davy, and her family were at one time neighbors of the family of Sir Samuel Romilly, the eminent statesman. Alexander helped found the precursors of the Royal Geological Society and the Royal Society of Medicine and he taught chemistry to medical students at Guy's Hospital. This article draws on hitherto unpublished documents to explain how they gradually became close and secure enough to become marriage partners.

Introduction

Jane Marcet was a prolific writer of books on science, history and economics during the nineteenth century when many women were campaigning for the right to take public part in intellectual activities, including science. Some, such as Mary Somerville and Ada Lovelace, were original researchers and are now widely recognized, but the contribution of Jane Marcet, a popularizer of new science, has generally been less recognized (1).

Her first and most influential book, *Conversations on Chemistry*, was published in 1806. It did not carry the name of an author, who was designated simply as "a lady" (2). How did Jane Haldimand, the daughter of a banker whose family originated in Geneva and with a conventional English education at home, with tutors including the famous painters Thomas Lawrence and Joshua Reynolds, come to write such a book? She developed an interest in chemistry through her marriage to a medical doctor and chemist, Alexander Marcet, who also originated in Geneva. The likely influence of Geneva on their outlook on life is indicated in a study of the Geneva elite of the period (3).

When she died her *oeuvre* included a wide range of books and articles, including a pioneering work on political economy, today usually simply called economics. Jane influenced a whole generation of people, both men and women, to develop interests in science and education. Michael Faraday, when apprenticed in his youth as a bookbinder, read books at night, and he wrote later that those that influenced him most significantly to study science were *The Encyclopaedia Britannica* and *Conversations on Chemistry*. Later he knew Jane personally and became a life-long admirer, who addressed his letters to her as "Dear Mistress" and ordered that she should always be admitted to the Royal Institution in Albermarle Street, London, whenever she wished. to attend an event (4).

A biography of Jane (5) and a biographical account (6) are available. An account of her pioneering book,

Conversations on Chemistry, titled *Chemistry in the Schoolroom, 1806*, has also been published (7). The title of the latter useful account is misleading, for Jane's book, like several others of the period, was published for self-study, not for the classroom. Chemistry, as understood today, was not generally taught in schoolrooms or universities in Britain until several years after 1806. A notable exception was the University of Edinburgh, where Alexander chose to study medicine under the auspices of Joseph Black.

Jane was born in 1769 and grew up and lived in London. Her father, Anthony Francis Haldimand, an expatriate Genevan, was a banker who was widely known in society circles. He entertained often and was known for his hospitality. He also kept up his Genevan contacts, including the mercantile ones. Through his contacts he must have been aware of the activities of the Marcet family, also residents of Geneva. At first the Haldimands lived in London at 51, St. Mary Axe, probably "over the shop." Today the most notable building in St. Mary Axe is the twenty-first-century tower known as "the Gherkin." Anthony Francis seems to have ensured that his clever daughter was able to hold her own in educated company, which she evidently could do, even though Jane's mother, had died in 1785, and her fifteen-year-old daughter took her mother's place as her father's hostess and housekeeper. There must have been more than one suitor for the hand of such a presentable and financially secure young woman, but only one other than Alexander is mentioned in surviving documents. Jane finally married when aged over thirty.

Jane Marcet's first book was on a subject of which she had apparently known nothing, and she wrote it for the benefit of other women, for whom she had previously displayed little concern. She was an unlikely pioneer for the popularization of chemistry and of sciences, for people in general, let alone for women.

Though generally forgotten today, Alexander Marcet was a prominent figure in the early history both of the Royal Geological Society and of the predecessor of the Royal Society of Medicine. In contrast to Alexander's work (8), there is a wide range of publications concerning the life and work of Jane (9, 10).

None of the first twelve editions of *Conversations on Chemistry*, carried the name of an author, because British "ladies" did not write books, except perhaps those containing advice on household management. The anonymity of women authors was not unusual, as the Bronte sisters and many other women also discovered.

Jane Marcet's name appeared first on the thirteenth edition of 1837.

The format, a series of conversations or dialogues between a teacher/tutor, Mrs. B., and two girls, Emily and Caroline, was unoriginal and at the time no longer in great favor. Contemporary British society might have found a male teacher more realistic, so that the teacher and students in the book being women was also a novelty. Mrs. Marcet's own drawings were used to prepare the engravings which appeared in the first edition. Jane's motivation for writing the book appears in the Preface common to these "anonymous" editions (2):

In venturing to offer to the public, and more particularly to the female sex, an Introduction to Chemistry, the Author, herself a woman, conceives that some explanation may be required; and she feels it the more necessary to apologize for the present undertaking, as her knowledge of the subject is but recent, and she can have no real claims to the title of chemist.

She believed that women should be able to understand chemistry just as well as men.

Jane left an abbreviated account of her family life, titled "Family Dates," which shows a very restricted and subjective view of herself. The material cited here was taken from a manuscript called a family notebook which is in an archive belonging to a family of Jane's descendants (11). It runs from 1777 to 1834, and it shows that she had a varied life. She travelled to several countries in Europe about a dozen times despite the British war with France. She also travelled in England and Scotland, saw French warships in the Channel, experienced the Gordon Riots, met her uncle Haldimand who led the British army in Canada, visited relatives and friends still living in Geneva, moved to 23 Russell Square in 1808, and spent summers in Clapham, part of modern London but which was at the time in the country (!). Towards the end of her life Jane seems to have spent every winter away from London, and generally in warmer climes, such as in Italy. The notebook is singularly devoid of any real family details, or of anything relating to her books. It gives no real indication of many social, family, or business interactions. For these it is necessary to read her correspondence, or the biography by Polkinghorn (5).

The numerous letters and documents in the Marcet archive in the Bibliothèque de Genève and some others in a private archive belonging to modern descendants of Jane have generally not been known to historians of science and the current paper discusses the light that these throw on the early relationship of Jane and Alexander.

Courtship and Marriage

Alexander Marcet was banished from Geneva in 1794 when it was occupied by Napoleon (8), and he then studied medicine and chemistry in Edinburgh. He apparently become engaged to a lady in Edinburgh. On moving to London after graduation in 1797 the wealthy Miss Haldimand might also have struck him as an appropriate bride, though he would have been unable to make a suitable proposal to her father, as he was without income. The Marcet archive in the Bibliothèque de Genève (hereinafter denoted BG) contains many as yet unpublished letters originally exchanged between Jane and Alexander, which show how their relationship developed and how Jane's interest in chemistry arose from it. Most are held in the BG archive numbered BG MS 4244, though some can be found in MS 4242 and an occasional one in MS 4243. In the citations below, cited in the form BG MS Fr, Fr denotes page numbers.

A letter in French from Alexander, from Mrs. Macpherson's house in Edinburgh, where he lodged, to Miss J. Haldimand, at St. Mary Axe, London, dated 3 August 1795, (BG MS 4244 Fr 1b-2b), makes it clear that they were already well acquainted, though not with marriage in view. He recalls times he has spent with Jane's family, and tells her that his sister, after a family death, had just married a brother-in-law, Mr. Prevost, which evidently caused some local discussion. A special dispensation was obtained from the local church authorities for Prevost's marriage to the sister of his deceased wife. Alexander was otherwise enjoying life in Edinburgh.

In fact, Alexander kept contact with many exiled Genevans, and was a source of information for them. In addition, Eleanor née Bertrand, the wife of Sir William Wickham, sent him a stream of letters, each of which generally finished with a plea for news about Switzerland and Swiss friends. These letters are now in the Hampshire Record Office, Winchester, UK. Jane's reply from Hampstead to Alexander at Mrs. Macpherson's, St. James' Square, Edinburgh, 12 September 1795 (BG MS 4244 Fr 104a-106a) was also in French. The writing has faded considerably and it is difficult to read. Jane says how pleased she is to receive news from Alexander, and welcomes the marriage of his sister. Her own letter strikes one as a kind of "stream of consciousness" of a young girl rather than a missive from a mature woman of twenty-five. Jane tells Alexander of the marriage of her cousin Morris to her cousin Harriet Saunders, and of a Mr. Hunter to a pretty Yorkshire girl with a fortune of twenty thousand pounds. "Voilà un homme heureux!" she writes.

There are no further surviving letters for about two years, but meanwhile Alexander certainly spent at least part of the summer holiday of 1796 in London and in his notebook (BG MS 4247/3 Fr 1-18) he describes a visit with Jane to a ball.

C'étoit un petit bal de souscription, il étoit plus que simple, il étoit [masquier?], on a servi du thé a chaque personne pour son schilin [shilling?] ... J'ai dansé 3 fois avec Miss H. & deux fois avec les deux jeunes filles. Je n'ai pas vu les balles ou les femmes fuissent en general si laides (12).

The next surviving letter, one from Alexander to Jane, also in French (BG MS 4244 Fr 3b-5a), dated 1 August 1797 makes the formality of their relationship quite clear. Alexander was very grateful for the education he received in Scotland, and he retained a warm feeling for the country and people. He had moved in a society of cultured and principled teachers but also landed gentry, many of whom valued him as much as he them. The gentry seem to have given him a love of shooting, which he retained until he died.

On 5 August 1797 Jane at Clapham Common answered Alexander in Edinburgh (BG MS 4244 Fr 142b-144a). It is clear from this that they are certainly no more than good friends, possibly meeting for one last time.

The next surviving letter in the sequence, from Jane (BG MS 4244 Fr 106b-109a, 8 December 1797) was some months later. They had met in August or September, and something very awkward had occurred between them. Later letters show that they were both engaged at the time, Alexander to a Scots lady and Jane to a cousin of whom her father did not approve, but clearly this inhibited them from becoming too familiar with each other.

Upon settling in London in 1797, Alexander needed to earn an income and he took up his first professional appointments at the Carey Street Dispensary and then in 1798 at the City Dispensary. He certainly visited Geneva in 1800, by which time his circumstances had changed: he was married, he had obtained the distinction of LRCP (Licentiate of the Royal College of Physicians), and was a naturalized British subject.

Alexander wrote a long letter to Jane on 20 December 1797 (BG MS 4244 Fr 5b-7a) apparently in reply to hers of December 8. This letter seems to have been delivered by hand, and though very formal, somehow reads almost as a love letter. It excuses Jane completely from any blame in the matter, and praises her good qualities in a very elaborate way. Alexander emphasizes how much he values her friendship and even advice, and, although

he offered to return her original letter, he hopes now to keep it. "I ask you as a friend permission to keep it amongst my most precious things, as a measure of the possibility of candour, of dignity & everything in there which is friendly."

After 20 December 1797 there is a gap in their correspondence, because the next letter we have is from Jane to Alexander, now living at 20 Southampton Buildings, Chancery Lane, London, and dated Monday 13 November 1798 (BG MS 4244 Fr 109b-111a). This seems to be purely social, suggesting that the emotional crisis had passed. The name Casinove that appears in this letter seems to change in later letters to Cazenove, a name still prominent in London financial circles.

The next letter in the archive, from Jane at Clapham Common to Alexander at Southampton Buildings, is dated Friday evening 15 January 1798 (BG MS 4244 Fr 111b-113a). There may be an original filing error here, because the sequence of citation numbers appears inconsistent with the letter date sequence. The year may have been 1797, though the following letter cited (see below) as following this one carried no date, only the year, 1798. The letter (BG MS 4244 Fr 111b-113a) makes sense here and shows that within the rules of etiquette, Jane is clearly trying to encourage Alexander to visit her more often.

Following the citation order, Jane at St. Mary Axe writes next to Alexander at Southampton Buildings (BG MS 4244 Fr 113b-115a) in English and shows that the Haldimands (and their family servants) were by now patients of Alexander. The letter is dated only 1798, but it is approximately in its correct sequence here. It would appear from the cover to this letter that someone collected together all Jane's letters to Alexander for the years 1795-1798, maybe Alexander himself, because the note "1795-1798" is written on one of the covers. Alexander's replies to Jane are not to hand.

A further letter of Jane from Clapham Common to Southampton Buildings (BG MS 4244 Fr 115b-117a), dated 8 March 1798, is notable for its bantering tone:

Monsieur In answer to your last letter, which began with a terrible long Mademoiselle; but if you likewise wish me to reply to the preceding one, I write to invite you my Dear Friend to dine with us on Thursday next; not that I mean to preclude you from paying a visit to us before that time.

Jane was evidently trying to ingratiate herself with Alexander, as far as his Scottish engagement and the conventions of the time allowed. On March 24, 1798, Jane wrote again (BG MS 4244 Fr 119b-121a), from Clapham

Common, and in a similar tone. A further undated letter (BG MS 4244 Fr 121a-123b) seems to fit here. She asked Alexander to visit her, accompanied by Charles-Gaspard de la Rive. In the first letter of these two she writes: "... if I were married I would introduce you to my group, but since nobody knows your secret I don't dare."

The course of true love is clearly not without its pitfalls. On April 1, 1798, Jane wrote in English from Clapham Common to Alexander at Southampton Buildings (BG MS 4244 Fr 117b-119a) postponing the party, and there is a gap until the next extant letter from Jane at Clapham Common to Alexander at Southampton Buildings (BG MS 4244 Fr 123b-125a), dated Thursday (actually July 19, 1798, by interpolation) and stamped Clapham Penny Post unpaid! This letter invites Alexander for a trip on the Thames. The next letters (from Alexander at Devonshire Place to Jane at Clapham, undated, BG 4244 Fr 17b-19a) and from Jane discuss health matters. Jane's letter to Alexander at Southampton Buildings (BG MS 4244 Fr 127b-129a) also undated, but it was written from No. 1, Marine Parade, Brighton, which, together with Hastings, was a place that Jane visited frequently during the summer. It was probably written in August or September 1798, and discusses the possible benefit of sea bathing. Evidently things were going well between them, but by late October there was another uncertain passage in their relationship. In a letter in French (BG MS 4244 Fr 129b-131a) dated 25 October 1798, the reason is hinted at, though not explained fully. Alexander was apparently rather upset with her, and she with him, although she knows he has been unwell and sad. She ends with an invitation to visit Clapham as soon as he can after their return.

What caused Alexander's evident depression? It was possibly the breakdown in his relationship with the mysterious lady in Edinburgh, who is never named in any letters of this period. A much later letter to Alexander (BG MS 4242 Fr 82b-84a) gives at least a clue. This is from one Rosine Agnes Bell at Trafalgar House, Great Malvern, Worcestershire, and is dated January 2, 1822. It is edged in black, and primarily concerns the death of her brother-in-law, Ramsay. Alexander, upon request, had offered to help arrange the publication of the papers of Ramsay, and the offer was gratefully acknowledged. Alexander had once been very close to them. It seems that one Rosine Agnes Congalton married the eminent Scottish Surgeon John Bell, elder brother of the even more renowned surgeon Sir Charles Bell, in 1805. The name Congalton is mentioned by Jean de Carro in his letters to Alexander (13), specifically the pretty Mary

Congalton with whom Alexander was probably already acquainted at Geneva, and the piano which he had left with the Congalton family. Jean de Carro was a physician then active in Vienna and promoting vaccination against smallpox, who seems to have met Alexander while studying in Edinburgh. The pretty Mary Congalton is the only young lady mentioned in these letters and who may have been concerned in his romantic connection there.

The next letter from Jane (BG MS 4244 Fr 109b-110a dated 13 November 1798) mentions “poor Switzerland,” relating to Napoleon’s incorporation of its cantons including Geneva into the French Republic. Alexander was depressed for some time, and Jane attempted to cheer him up (BG MS 4244 Fr 131b-133a, 30 November 1798; BG MS 4244 Fr 133b-135a, 2 January 1799; BG MS 4244 Fr 135b-137a, 16 January 1799; BG MS 4244 Fr 164b-165a, 25 January 1799). She asks for help in arranging yet another social gathering, also involving expatriate Swiss families, the Constants and the Cazenoves (no longer Casinoves) among others and also invites him to see Hamlet at the Drury Lane Theatre. The continual references in her letters to titled persons confirms that the Haldimands mixed in the upper echelons of London society.

There is then a hiatus until 7 April 1799 (but the letter is post-marked 6 April), by which time Alexander had moved house to Camomile Street in the City of London, quite close to St. Mary Axe (BG MS 4244 Fr 137b-139a) where the Haldimands lived. Jane was busy arranging parties to involve Alexander, and apparently also helping him to earn money by giving lessons (in French?) to suitable young ladies. On 11 April 1799, Jane scribbled a note in French (BG MS 4244 Fr 139b-140a), asking Alexander to meet her at Mrs. Cazenove’s for a consultation of some kind. This note was followed by a similar note in English (BG MS 4244 Fr 140b-142a) requesting rapid medical advice for Bessy, a family servant, who is very unwell, and for Miss Cleaver, a friend (BG MS 4244 Fr 166b-168a, 17 April 1799). A letter in French dated 20 September 1799 (BG MS 4244 Fr 144b-146a) asks Alexander to meet her and to bring her some medication for her eyes as she can hardly see. She signs herself: Your blind friend.

The next letter in the collection is dated 23 September 1799 (BG MS 4244 Fr 146b-147b), in which Jane says she has shown great heroism in submitting to a little operation, much as did Mr. Cazenove. Alexander was still acting as the family physician. It is likely that he was also recommending them to be vaccinated against smallpox, which might be the “little operation” referred to above.

It is evident from other correspondence that Alexander was active in promoting vaccination against smallpox (he knew both Edward Jenner and another promoter of vaccination, then active in Europe, Jean de Carro) and that he urged families to be vaccinated (8, 13, 14).

What Jane clearly did not know was that Alexander had decided to write to her father asking for her hand in marriage. This letter (BG MS 4244 Fr 278b-279b) from Camomile Street and dated 5 October 1799, was a long plea for understanding and help, and was written in French. The extant version seems to be Alexander’s own copy, so it is not certain that the letter he sent was exactly that which is here, but Alexander kept copies of many of the letters he sent, as well as of many of the letters he received. He explains that his Scottish connection had disappeared, that he had known Miss Haldimand for several years, and esteemed her greatly, though he had never expressed his feelings towards her. He also says that he has no fortune, only prospects in his profession. These were actually quite bright. Sir Astley Cooper, an eminent surgeon of this period and physician to the King, who was attached to Guy’s Hospital, and later became a colleague and a friend, lived and worked in Broad Street, also in the City of London. His waiting room could accommodate fifty persons, and his income has been recorded (15) to have increased as follows: first year, 5 guineas; successive years, £26, £64, £96, £100, £200, so although Alexander might have been obliged to rely for support on his potential father-in-law for some time, with the right connections and bed-side manner, both of which he possessed, a very comfortable income seemed assured. Incidentally, other letters show that Alexander was acquainted with Crown Prince and Regent of Sweden through his contact with Berzelius (16).

On the same day Miss Roguin, a visitor from Switzerland and possibly a family cousin, wrote from Hastings where she and Jane were staying, to Alexander at Camomile Street, upbraiding him for neglecting at least Jane and herself. Her letter in French (BG MS 4242 Fr 374b-376b) is dated 5 October. We know that Alexander did not reply directly to Miss Roguin. He clearly had his mind on other things, because Anthony Francis Haldimand replied from St. Mary Axe to Alexander’s request to be allowed to woo Jane on 8 October 1799 (BG MS 4244 Fr 281a).

This letter is notable for its brevity, directness and beauty of execution, and is reproduced here (Figure 1). Even this short letter is difficult to decipher in its totality, but there seems little doubt that Anthony Francis considered Alexander a good match. He must also have

been aware that his daughter, aged thirty, though she did not convey her real age to Alexander (see below), was not in her first flush of youth. (Still, with her family wealth to support her, she might well have attracted a host of undesirable ambitious suitors, not least her cousin Devos.) What Anthony Francis says is that short replies are always the best, as long as they are favorable, and he is not going to say any more except that Alexander should ask his daughter directly. There could not have been much doubt in Alexander's mind that he was likely to get a positive response from Jane, but he had to ask her himself. Alexander, having received the assent of her father, was finally attempting to gain Jane's favor. Their subsequent letters are a kind of refined pas de deux as they finally revealed their true feelings to each other. It is not clear what was the actual sequence of events because the exchange of letters took some time. However, they clearly show how the final understanding between them was reached.

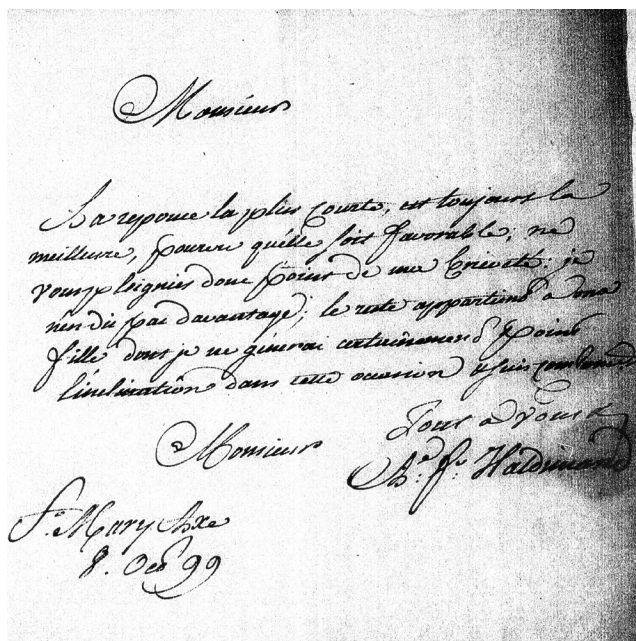


Figure 1. A. F. Haldimand's reply of 8 October 1799 to Alexander's letter asking for permission to court Jane.

On 9 October 1799, when Alexander probably received her father's crucial letter, Jane wrote a long, unsigned letter from Hastings to Camomile Street (BG MS 4244 Fr 148a-150a). She starts to philosophize, in a manner that might well surprise the inhabitants of Hastings today.

...you know how partial I am to the sea & here we have it in all its beauty & all its horror every thing is wild & romantic; even the people seem to partake of the nature of the country in the simplicity of their manners; bolts & bars are not necessary & mistrust

& suspicion are unknown among them; however delightful a contrast to London, & its environs, to behold Nature in its grandest & most interesting point of view.

This philosophical musing loses some of its impact when you read the next sentences, since they would seem to contain an error that could hardly have been unintentional. "I beg you will recollect that I am not yet twenty as that alone can apologise for suffering my pen to run on in such a romantic [illegible] of sentiments..." Nevertheless, Jane was born in 1769, so she was nearer thirty than twenty when she wrote this in 1799.

On the same day, on the evening of 9 October 1799 (though actually postmarked 11 October), Alexander, presumably in receipt of Anthony Francis's agreement to his courting Jane, also wrote to her (BG MS 4244 Fr 7b-9a) at 2 Saturley's Row, Hastings, in French. The letter makes it clear that there was some overlap in the correspondence due to the time taken for the post to reach the recipients. In this letter Alexander asks again for a letter of introduction to use for a trip to Yorkshire he was planning, but also he assures Jane he will come south to Hastings, after having asked her father's permission to do so. The excursion to Yorkshire may be the episode that sparked Jane's fit of pique.

A short note from Jane in French (BG MS 4244 Fr 150b) also dated 9 October 1799, but postmarked 11 October, would appear to contain a promised message of introduction to a friend in Yorkshire, Miss Cleaver. It is scarcely legible, but seems to have a distinctly unfriendly tone. Jane apparently strongly disapproves of the trip. The final lines simply say: "Adieu, I wish you a happy journey. JH."

There seems to have been no letter from Alexander dated between 9 October and 13 October (was he en route to York?). Meanwhile Jane was firing off letters regularly. On 13 October 1799 she wrote two letters in French to Alexander, which seem to mark a turning point in their courtship. They are exceedingly difficult to decipher. The first (BG MS4244 Fr 151a-152a) reproaches Alexander for not writing to her more frequently, and then carries on with detailed gossip about what she had done during the day. It mentions a possible love match for her companion, who seems to be a foreigner called Marianne, perhaps Miss Roguin, but it also gives him advice on visiting Miss Cleaver, her family, and a Dr. Cappé, a long-time acquaintance of Alexander who would bequeath him some books when he died. However, Jane was not finished, and apparently on the same day she wrote to him again

(BG MS 4244 Fr 152b-154a). She accuses Alexander of abusing her friendship and trust, in very clear terms:

Your letter hurt me, my good friend, and if I write to you today for the second time it is to reproach you; please do not abuse in juggling friendship & frankness with which I write to you and do not in the least force me to treat it as an indiscretion; it would be very painful for me not to be open with you....”

She is rather disingenuous when she goes on to say that her friend wants him to give up his trip to Yorkshire, but she wouldn't dream of trying to persuade him because it would be so nice for him and Miss Cleaver, and also for her, to hear all about it! She finishes by hoping that this little letter will not upset him, and by emphasizing how much they are looking forward to his visit to Hastings.

On 13 October 1799 Alexander also wrote to Jane, still at Hastings, in a letter (BG MS 4244 Fr 9b-11a) that implies he was probably on his way to Hastings to propose. The letter begins in very effusive fashion and states that the sole place he could now visit was Hastings. The exchange of letters seems very jumbled now, and it appears that Alexander sent this letter before receiving Jane's reproachful ones of the same day.

Alexander's response to Jane's reproachful letters was immediate and presumably was not quite what Jane had hoped for. He was certainly very hurt, and another letter to Hastings (BG MS 4244 Fr 11b-13a) dated 14 October 1799 suggests all was not plain sailing. Alexander cannot understand what he is accused of.

What have I said, what have I done, to merit such a reproach.... Abuse! Was it really you Miss Hal-dimand who addressed these words to me; did I really merit them?

The finale is very cold:

So adieu Mademoiselle, I am at present trembling if I call you my friend. So whatever the language might be I dare not use it because in my mouth it frightens you. If this letter seems sad to you, remember that two days ago to I was hoping to recover my Country & to keep for ever a [lady] friend.

So poor Alexander was on the threshold of losing his homeland and his prospective bride! Nevertheless, the politics of country and heart were to be settled quite quickly.

Miss Roguin now enters the exchange again, in a letter in French from Hastings, dated 15 October 1799 (BG MS 4242 Fr 376b-378a) to Alexander at Dr. Cappé's in York. Miss Roguin was acting as a go-between, trying to eliminate the misunderstandings that had clearly

arisen between Alexander and Jane. It is evident that almost a week after receiving her father's approval for him to court Jane, he had not yet begun to do so. It is, of course, possible that Jane had been warned by her father, and was angry that Alexander had, nevertheless, set off for Yorkshire. Miss Roguin's letter is headed "Mardy Matin" and not all the text is completely grammatically correct. She begs him to continue to court Jane, even if there was a current misunderstanding.

Another letter from Alexander, (BG MS 4244 Fr 13b-14a), dated simply November 1799, when London was enveloped in a great fog, shows that the trauma had by then passed. The letter finishes by calling Jane "my naughty friend" as any teasing lover might do.

A letter from Jane dated November 16 (BG MS 4244 Fr 168b-170b) could be either from 1798 or 1799, probably the latter. It is notably free of sentiment or expressions of familiarity. She invites Alexander to visit them when her father took his coach on a return journey to London and she mentions receiving a letter from her brother George in Geneva.

By 19 November 1799 (BG MS 4244 Fr 154b-156a) the couple seem finally to have become engaged. Like most of Jane's letters at this time it is written in French possibly in order to convince Alexander of her sincerity and her suitability to be the wife of a Genevan. After a courtship that was not altogether straightforward, any misgivings as to Alexander's suitability were finally assuaged. The next letter (BG MS 4244 Fr 156b-158a) is dated simply November 1799, and clearly it was written shortly after they became betrothed, the exact date of which event is not evident. It seems also to be incomplete. Nevertheless, it is the first occasion upon which Jane tells Alexander though not directly, that she loves him. A further letter of 25 November 1799 (BG MS 42443 Fr 158b-160a) is principally gossip.

By the first of December they were officially and publicly betrothed (BG MS 4244 Fr 162b-164a) and were about to be married. Presumably meeting on neutral territory was acceptable at this time. It is evident that Jane was still in contact with de la Rive. Jane writes very factually without openly expressing any deep affection for her husband-to-be, but for the first time in any letter she uses a chemical name. The word used by Jane and translated here as nitrogen is actually "azote" and it is not clear what meaning this conveyed to her or anyone else in her circle in 1799. "

You have hardly come back from our meeting in Kensington Gardens this morning it was really nice

after the rain; when are you coming to breathe a little country air/ believe me there is a lot less nitrogen than in London.

A second letter of the same day (BG MS 4244 Fr 160b-162a) seems to show Jane arranging the wedding and visiting the dentist.

This letter must have reached Alexander the same day for he immediately replied (BG MS 4244 Fr 15b-17a). A servant called Richard carried these letters backwards and forwards. Alexander was worried that the wedding might be delayed. Another letter from this time that shows the close relationship that Jane and Alexander also had with de la Rive (BG MS 4248 Fr 13-14, from G. C. Delarive [*sic*] to Jane at A. F. Haldimand Esq., 3 December 1799). He is delighted that Jane and Alexander had agreed to marry, and he assured her that they would both be happy. The letter also contained news of Jane's brother George and of Mlle. Roguin.

These are the last letters that we know of from before the wedding. Alexander and Jane were married on 4 December 1799 in London. Jane was already about thirty, and Alexander was a little younger. He had made a good marriage, not just because of the quality of his partner, but because his father-in-law settled some £10,000 and some property on him. He was now set up for life. Alexander and Jane lived *en famille* at St. Mary Axe and Clapham Common while he pursued his career at the City Dispensary and later at Guy's Hospital (17). They had four children. Of these, two were daughters. Of their sons, Frederick died young, while Francis (or Frank) was educated (after some problems at school) in Edinburgh, like his father. He moved to Geneva later, and after marriage became a well-known scientist and fellow of the Royal Society. His son William also gained the title Doctor, whilst his two daughters married into the old-established Geneva families of De Candolle and Pasteur. The name Haldimand subsequently disappears from English records, though the family line continued under the names Marcet and Pasteur.

Conclusions

The letters discussed here are suggestive of the kinds of persons Jane and Alexander were before their marriage. He was very ambitious and hardworking, and concerned with his career, and he had become very interested in chemistry during his medical studies in Edinburgh. He was clearly attracted to women, and perhaps he was depressive. His final letters to Jane where he talks of delays to the wedding suggest that he had the scientist's

dislike of disorder. He was capable of emotional outbursts, sometimes of strongly conflicting emotions. Jane seems to have been concerned with rather "feminine" things until she came under Alexander's influence. Some of her letters gush, others show a concern with Nature and philosophy of a rather superficial kind, but she was evidently well read, and tried to show this to Alexander.

Her efforts to help Alexander through his personal difficulties suggest some not entirely disinterested sensitivity, with an indication of a controlling personality, within the parameters of the day, appearing from time to time. Nowhere does she appear as a teacher or instructor, and her writing style is very different from that exhibited in her books. Jane's first child, Frank, was born in 1803, and announced in the London *Times* in an oblique but then customary fashion: "On Wednesday last, in St. Mary Axe, the Lady of Alexander Marcet M. D. of a son."

Apart from motherhood, Jane's marriage opened up a whole new set of acquaintances for her, and evidently a whole new set of interests, especially in science and in political economy. Even before she married, her mention of azote in a letter to Alexander indicates that she had at least a passing interest in science, but Alexander was to prove the catalyst to her writing. She met people such as Beddoes, Tennant, Davy, Faraday, Berzelius, and the Somervilles, politicians such as Sir Samuel Romilly, and various scientists associated with the Geneva diaspora, including Prevost. She also met the economists Harriet Martineau, Malthus and Say, and writers and educationists, including Maria Edgeworth, her father Richard Lovell Edgeworth, and Sydney Smith. The detailed genesis of *Conversations on Chemistry* is described elsewhere (18).

Both Jane and Alexander were strongly influenced by their Genevan ancestry. The Genevan leading families at the end of the eighteenth century were very enlightened in their attitudes to education and philosophy and believed that every citizen of Geneva should be educated, at least to be able to read and write (3). This was not true of education in Britain at that time. Also, since both of them were francophone they could maintain a Genevan connection using the post. At the beginning of the nineteenth century in Britain, ideas with a French connection were widely regarded with suspicion. For Jane, her philosophy and her comprehension of the scientific interests of her husband led her to believe that women as well as men were capable of understanding chemistry. Their mastery of French and their connections to Geneva enabled them to cultivate awareness of scientific developments in France and Switzerland, which would not have been

easily available to their monolingual British contemporaries. Alexander's Geneva origins stimulated him to spread the new scientific and medical discoveries to his acquaintances in London, and hence his early activities in groups which later became the Royal Geological Society and the Royal Society of Medicine.

References and Notes

1. This assertion may surprise readers of this journal, and it certainly surprised its editor. But then we are presumably more familiar with Marcet's discipline (chemistry) than with Lovelace's or Somerville's. And this journal has published several articles on the Marcets by the present author. Lovelace and Somerville are the subjects of more books than Marcet, as can be seen by conducting a subject search in WorldCat. Lovelace has more recent mentions in print as reported by the Google Books ngram viewer than Somerville than Marcet. (Throughout the twentieth century Somerville led Lovelace. Marcet trailed both except for a brief period after her death.) The crude measure of hits in a Google search also places Lovelace ahead of Somerville ahead of Marcet. —Editor
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4. See, for example, H. Bence Jones, *The Life and Letters of Faraday*, Cambridge University Press, Cambridge, UK, 1970, a reprinting of the original version of 1870.
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11. J. R. T. Aldous, Ed., 1964, *Family Notebook*, a document from an archive in the possession of descendants of Jane and Alexander, and discussed here with permission.
12. It was a little subscription ball, it was more than simple, it was [a masquerade?]. Each person was served tea for their [shilling?] ... I danced 3 times with Miss H. & two times with the two girls. I haven't seen a ball where the women were so generally ugly.
13. H. E. Sigrist, Ed., *Letters of Jean de Carro to Alexandre Marcet, 1794-1817*, Johns Hopkins Press, Baltimore, 1950.
14. A. Hardy, "The Medical Response to Epidemic Disease during the Long Eighteenth Century," in J. A. I. Champion, Ed., *Epidemic Diseases in London*, Centre for Metropolitan History Working Papers, London, 1993, Series, No.1, pp 65-70.
15. W. Thornbury, *Old and New London*, Volume 2, Cassell & Company, London, 1889, p 166.
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18. G. J. Leigh, "The International Publication History of Conversations on Chemistry: the Correspondence of Jane and Alexander Marcet during its Writing," *Bull. Hist. Chem.*, **2017**, 42(2), 85-93.

About the Author

G. J. (Jeff) Leigh is an Emeritus Professor at the University of Sussex. After a lectureship at the University of Manchester and a year working in Munich with E. O. Fischer, he spent the rest of his employed career at the Unit (later Laboratory) of Nitrogen Fixation in Sussex, from where he published over 200 papers on the chemistry of nitrogen fixation. He first came upon *Conversations*

on *Chemistry* in 1964 in a second-hand bookshop, and was intrigued by the fact that this book had been written as early as 1806 by a woman who was not a recognized

natural philosopher. He has since intensively researched her life and that of her husband.

2021 HIST Award to Mary Virginia Orna

The Division of the History of Chemistry (HIST) of the American Chemical Society (ACS) is pleased to announce that the recipient of the 2021 HIST Award for outstanding achievement in the history of chemistry is Mary Virginia Orna, OSU. The award is scheduled to be conferred at the Spring 2022 ACS national meeting in San Diego, California.

Sister Dr. Orna was born and raised in New Jersey. She received a B.S. in Chemistry in 1955 from Chestnut Hill College (Philadelphia, Pennsylvania). She pursued graduate education in analytical chemistry at Fordham University in New York and received her Ph.D. in 1962 under Michael Cefola. She professed her first vows as an Ursuline sister (Order of Saint Ursula) in 1965, and she completed her preparation for her professional life at the Catholic University of America in Washington, D.C. and received an M.A. in Religious Education in 1967.

Orna joined the chemistry faculty of the College of New Rochelle (New Rochelle, New York) in 1966 and is now Professor of Chemistry Emerita. She has received awards for excellence in chemical education, including the CASE New York State Professor of the Year in 1989 and the ACS George C. Pimentel Award in Chemical Education in 1999. Orna has also been recognized for exceptional service in ACS, having received the ACS Award for Volunteer Service in 2009 and the Shirley B. Radding Award from the Silicon Valley Section in 2019. Much of that service has been to HIST. She joined the division in 1976 and rapidly became an essential member of the Executive Committee. She served as Chair in 1984 and as Treasurer in 1989-90. She has been a Division Councilor for more than 30 years.



Archeological chemistry has been a long-standing interest of Orna's, the study of color and its role in human culture constituting an important part of her chemical, educational and historical research. She has organized HIST symposia on archeological chemistry and edited and published in symposium volumes on the subject: she edited *Archeological Archaeological Chemistry: Organic, Inorganic, and Biochemical Analysis* (1996) and *Archaeological Chemistry: A Multidisciplinary Analysis of the Past* (2020), the latter with Seth Rasmussen. She was instrumental in founding the Edelstein Center for the Analysis of Middle Eastern Textiles and Artifacts in Israel. Much of her work on color appeared in *The Chemical History of Color* (2013).

Orna has written, edited and researched on a wide range of historical topics, from the periodic table to elements that cannot be found on the table. The former can be found in the 2019 special issue of *Substantia* on "Development of the Periodic System and Its Consequences," co-edited with Marco Fontani. The latter can be found in *The Lost Elements: The Periodic Table's Shadow Side* (2015), a collaboration with Fontani and Mariagrazia Costa, which describes claims for the discovery of elements which were not recognized. Orna's range is also geographically large, as reflected in the symposium volume *Science History: A Traveler's Guide* (2014) and in the study tours she has led in history of science.

Collaboration is another hallmark of Orna's historical work: among her frequent roles in collective efforts are organizer of symposia, contributor to symposia organized by others, editor or co-editor of symposium volumes, and author or co-author of publications. Early examples of her edited symposium volumes include *The History and Preservation of Chemical Instrumentation* (1986) and *Electrochemistry: Past and Present* (1989), both with John Stock. Recent examples of coauthored publications include "Dame Kathleen Lonsdale: Scientist, Pacifist, Prison Reformer," with Maureen M. Julian, in *The Posthumous Nobel Prize in Chemistry, Volume 2: Ladies in Waiting for the Nobel Prize*, edited by Vera Mainz and Thomas Strom, 2018, and *Carl Auer von Welsbach: Chemist, Inventor, Entrepreneur*, with Roland Adunka, 2018.