Discipline of a Marriage: The Sartons Make History of Science

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[Note: This lecture appeared in *Sartoniana* without proofs having been circulated to the author. The present text reproduces the integral version of the lecture, correcting errors introduced in *Sartoniana*. Material has appeared subsequently, notably in my book, *The Passion of George Sarton: A Modern Marriage and Its Discipline* (Philadelphia: American Philosophical Society, 2007)].

We live in the Age of Swine, James Surowiecki observed recently in the *New Yorker*. More precisely, the swinish self-interest behind free-rein capitalism now turns the world. People risk venture capital on technological innovation, presumably in addition to investing in stock and real-estate scams, in the exportation of manufacturing and services beyond the reach of minimum wage and regulated working conditions, and in questionable enterprises like spamming and the narcotics trade. Surowiecki summarizes, "In the dreams of avarice lie the hopes of progress."[1] There is certainly plenty of swinishness to go around these days, but self-interest is nothing new. One nineteenth-century observer of economics even placed it at the root of revolution against capitalism. Enlightened self-interest, Karl Marx insisted, is a precondition of revolutionary socialism.

A more accurate designation for our time is the Age of Whine. We are deluged with accounts of personal misfortune, so much so that a genre of literature called "self-help" has emerged to serve sufferers of clogged arteries, flabby midrifts, and phony investment portfolios, to mention only a few classes of aggrieved reader. Autobiographical tales of open-heart surgery and stock swindling, by talented writers with no claim to motivating historic events, rise to the top of the sales charts. We admire poets of whine, who are able to transmute their "sickness into art."[2] We venerate the ones who choose to check out of life early. In an Age of Swine, people are dying to live; in an Age of Whine, people are living to die.

To judge from the pages of the weekly American journal, *Chronicle of Higher Education*, whining is widespread in the academic life. Professors whine about money (athletic teams get too much of it, specialist journals are too dear); they whine about nepotism (the provost hires his drinking buddies but won't employ their husband or lover); they whine about resources (crummy library, antiquated particle accelerator). Seldom appreciated is the structure behind the whining. Many professors are permanently located at institutions where even stray dogs hesitate to take up residence, and it has been so for more than a hundred years. Sociologist Max Weber emphasized in 1919 that "academic life is a wild gamble," where material rewards are attributed whimsically, and where only a rare spirit can maintain equanimity in the face of the consistent promotion of mediocrity.[3] Unlike today's journalistic whiners, Weber deals at length with the connection between a scholar's emotional state and his calling, with why the self-effacing and ineluctable belief in the superannuation or "progress" of knowledge should animate teachers. But neither Weber nor the whiners consider how a scholar's intimate domestic situation may determine his scholarly accomplishment. In one form or another, love does make the world go round. I address the topic here by considering the love of George Sarton.

Love and devotion animate the past, and not only where the beloved is a passive object of desire. There are writers and artists: Héloïse's Pierre, Emilie's Voltaire, Virginia's Leonard, Frida's Diego, and Sylvia's Ted. We would live in a gray and horizonless present without the evocative creations inspired by eros, the Belgian philosopher Suzanne Lilar emphasized nearly half a century ago. In her great work of 1963, *Le Couple*, she champions the "cause of *unreasonable* love," going against the principal affliction of the twentieth century, the demythologization that "attacks all values." She speaks for "a whole and responsible love" now possible for the first time in history. In Lilar's view, love is self-conscious and reflective: "A great love is above all an awareness of a deep-rooted *nostalgia*, which it passionately tries to satisfy. This, whatever may be thought to the contrary, presupposes a strong sexuality, a motive power capable of assuring communication, able to join as well as to transport." Lilar begins her enquiry with the marriage of Peter Paul Rubens and his different wives, Isabella Brant and Hélène Fourment, following the inspired discussion of Eugène Fromentin.[4] George Sarton, who grew up in Ghent next to a Rubens painting in the Cathedral of St Baafs and who took his early literary *nom de plume* from a novel of Fromentin's, made love the center of an academic discipline.[5]

To describe those infected with love today, we would need a list where the possessed and the possessing are interchangeable, for we see the partners in a marriage as intellectual and financial equals. The equality has been achieved in the world of capitalism under the intense pressure of a persistent communist model stretching from medieval times through the English, French, Russian, and Chinese revolutions and with elaboration by millenarian communities elsewhere. The achievement has not been without strain. The latest census reports indicate that most adults are married, but it suggests that a substantial portion of this group are not happily married. About half of all marriages result in divorce; a large number of the remaining unions suffer estrangement; most married couples, it seems, are unfaithful to each other.[6]

When did the modern pattern, with its new sensibility, emerge? Demographers have mapped the precipitous decline in European fertility as a way to trace modernization across the nineteenth and twentieth centuries; the decline, they conclude, is based on birth control—women's empowerment over their own body.[7] Freed from perpetual child-rearing, ordinary women could become industrial workers or, more optimistically, imitate the aristocracy by studying nature and writing poetry. Whether women's political rights, no less than the spread of birth-control techniques, trickled down from the highest levels of society or percolated up from the lowest, at the end of the nineteenth century women entered institutions of higher learning in substantial numbers, and they often married—for love—fellow students. Formed in women's secondary schools by talented teachers unable to obtain a university position or to live on a university salary, young women *circa* 1900 learned to wield the instrument of reason. The intellectual firmament early in the twentieth century displays a large number of binary stars: the Einsteins (Mileva and Albert), Curies (Marie and Pierre), Ehrenfests (Tatiana and Paul), Clays (Tettje and Jacob), Webers (Marianne and Max), Webbs (Beatrice and Sidney), and Woolfs (Virginia and Leonard).[8] The marriage of George Sarton and Mabel Elwes Sarton, which led to a continuing tradition of scholarship, is exemplary of these complex and sometimes unstable unions.

The domains of intellectual accomplishment in the Sarton marriage are decorative arts and history of science. The decorative arts intended to allow sensitive design to enter the life of laborers and farmers, whether in fabrics, wall-hangings, domestic utensils, or furniture; for better or worse, the interior of our homes today owes much to these disciples of William Morris. History of science, an established if fractious department of higher learning, emerged to celebrate industrial progress (the very notion of progress depends on a recapitulation of the past) and also to organize and analyze the contents of enormous museums and more particularly libraries that had come into being over the generations before the First World War; we still hope for new gadgets and medical cures, and, for better or worse, few scholars today can completely avoid the shadow cast by the Harvard College Library or the Louvre. Among the general reading public, Mabel and George Sarton are known as the parents of the feminist poet May Sarton, who has written eloquently and evocatively about them and their times.[9]

"Manifestly no Macaulay," is the assessment of George Sarton by two of his biographers, who identify his legacy "in the creation of tools, standards, and critical self-awareness in a discipline."[10] Mabel Sarton's designs and creations can be found in great collections, notably the Smithsonian Institution and the New York Public Library, but her name is associated with no particular motif or structure. It is more reasonable to contend that the Sartons are original creators centrally situated in major cultural currents. Equally significant is the emotional side of their marriage. Even if their intellectual accomplishments had been dimmer, their affection testifies to the emergence of a new pattern of family life, the effects of which are felt for much of the twentieth century.

The story of the discipline of history of science is anything but dull reading. There are colossal errors of administrative judgment (regarding Paul Tannery's candidacy at the Collège de France); there are prisoners of conscience (Bertrand Russell and Lancelot Hogben incarcerated for war-resistance in England and Dirk Struik for holding the wrong political opinions in Boston); there are infelicitous political compromises (the aged Karl Sudhoff's membership in the Nazi Party); there are travel restrictions East and West (notably concerning Joseph Needham, for many years denied a United States visa); and there are stories of wandering exiles (the mathematician-thief Guglielmo Libri was one, and in a different vein Aldo Mieli and Alexandre Koyré were others).[11] The themes of politics, pacifism, and penury are writ large across the life and the purpose of George Sarton, animator of the disciple in the United States.

Not only did George Sarton animate the discipline of history of science in America, he dominated it. For more than half a century, much of its activity derived from his large vision of humanity, as well as from his anxieties and personality. His early programmatic statements as well as his popular writings—that is to say, a majority of his writings before the late 1920s—were designed to attract funding to his enterprise and to secure a better position for himself and his family. From the time of his youth, George claimed to privilege his studies over his family, but his

family is embedded in his work. Mabel Sarton, in particular, was the agent of George's success. Her kind and sympathetic social sense acted as a counterweight to George's impulsive and abrupt manner. Contacts made through her business in design helped secure George's lifetime post with the Carnegie Institution.[12] The birth of George's discipline required both husband and wife.

George Sarton was raised without religion in Catholic Ghent. By virtue of her own ethical-religious training in the London congregation of the American émigré pacifist minister Moncure Daniel Conway, Mabel Sarton was able to establish strong connections with the American Protestant Establishment who supported them both. Mabel writes from London on 6 April 1899 to her friend Céline Dangotte:

> I want to tell you that we hardly *ever* go to what you understand by a church. We belong to a society called "South Place Ethical Society." They have a building which is called a chapel but is not at all like one, at Finsbury in London. On Sundays there is a service—no prayers, no regular sermon. The service begins by singing something, not like the hymns in ordinary churches but poems in which the great idea is of One Supreme Being & of universal love & fellowship *on earth,* without expecting you to believe in a conventional *heaven.* After the singing something is read from some book on religion, not only *Protestant* but Roman Catholic, Buddhism or any other where pure & holy thoughts are contained. Then an anthem is sung (always by professionals, they do it for nothing). Then there is the "lecture" or sermon. Every Sunday it is a different man, or nearly so, any-one who has something worth saying may lecture & it is on all sorts of creeds & religions.[13]

The South Place spirit remained important in Mabel's life; it is possible, for example, that she heard the lectures of John M. Robertson in 1891 on, among others, Thomas Carlyle and John Ruskin, both of whom early influences on her thought.[14] She later writes to her mother from Ghent: "I have been looking through the S. P. Magazines I have. I want to have them bound a little later. I find I have not any year complete (not even with those Cé[line] had). The following nos. are missing. If you find you have them twice, any of them, let me know."[15] George Sarton obtained Conway's book, *My Pilgrimage to the Wise Men of the East* (Boston, 1906), soon after he married Mabel in 1911, and he credited the book with awakening his interest in things Oriental.[16]

George Sarton liked to think that two children were born to him in 1912, daughter May and his history-of-science journal *Isis*. He honored Mabel as their mother. The name of his journal was chosen by them both. "In our earnest innocence," he writes in his biography of Mabel, "we had conceived something immortal,... which deserved to bear the name of an eternal goddess."[17] The first number of *Isis* is dated March 1913, but George observed that he circulated a prospectus of 50 pages somewhat earlier, and his programmatic announcement of the journal appeared in November 1912. "To call May and *Isis* 'twins' is thus inaccurate though they were separated by an interval (six months) too short for ordinary sisters." George recalls that he and Mabel sent out thousands of copies of the specimen number to scholars identified from the pages of the annual academic directory, *Minerva: Jahrbuch der gelehrten Welt*. "I wrote the addresses, Mabel did the wrapping and added the stamps."[18] Years later, Mabel designed a bookplate for George, and elements from it were incorporated—not without bowdlerized modification—by George's successors on the masthead of *Isis* and publicity for the History of Science Society. The discipline carried his name and her art to the end of the twentieth century.[19]

George's purpose emerged when he was a student engaged to Mabel Elwes. She was a penniless English artist, alumna of a distinguished girls' school in Ghent, in effect adopted into the home of a wealthy interior designer in Ghent.[20] George writes to his betrothed on 28 October 1910, affirming the sense of their union. "I am one of those who believes that great scientists and great artists, great thinkers and great musicians, great dreamers and great doers, live in the same atmosphere, *breathe the same air.* I am one of those who think that the enterprise of science is an enterprise of art. I do not think it only, *I sense it*, with all my being, all my nerves tell me that." When he reads a treatise on geometry, he hears an orchestra playing. "I know that art and science are identical, just as I know that I exist. The two, when they are beautiful enough, produce the same enthusiasm, the same frenzy, the same sacred intoxication, the same rhythms, the same thrills." He continues:

> Later, in a hundred years, recognition will perhaps come, if I succeed to accomplish it, the artistic value of my work. And it requires as much imagination & inspiration to reconstitute the past, penetrate the thought of other times & write the history of human civilization as to write a sonnet or construct a poem. I tell you this so that I have in you (although you be on the other side of the divide) a close confidante whom I tell everything I think. But please don't tell anyone. One must not speak about something that has not been accomplished. But this clear light that I see there, far away, toward which I walk with confidence and joy and from which no one can turn me aside, I am guided by it. I know that it is the same star that appeared to

> so many men, and that it signals the crossroad where all minds meet, where all scientists are great artists and artists are scientists. I see it. The road is long, but I will remain strong. I understand that I will be criticized, misunderstood, fought against, scorned. I know that it will be necessary to sacrifice many enjoyments and leisurè, and that life cannot be spent making excuses. I know all that, and I walk forward *intently.*
>
> And if I fall before arriving at the finish, I will have fought well.

George and Mabel Sarton shared in this world of purpose and abstraction. Their life together was a scramble for resources without compromising their artistic and social integrity. But there is something else in George's manifesto. It exhibits the arrogance and naïveté that made him a disciplinary father without academic children, in his university setting and in his family. George directed only two doctoral dissertations; one of the authors succeeded him at Harvard, and one enjoyed a distinguished career in his native Turkey. George's daughter May Sarton did not attend college or university, even though she ended up with 18 honorary doctorates.

Love and art figure explicitly in George Sarton's plans. Suffering from uncertainty and depression, George penned one of his most admired essays as a preface to volume 5 of *Isis*. Written at Intervale, New Hampshire, during the summer of 1922, it is titled "Knowledge and Charity," and in the text George wants to show that history of science is about both head and heart, both works and the people who accomplish them. Acquiring knowledge is a moral duty, George emphasizes, and the people who do the most to advance knowledge are a small vanguard of humanity. These are the people best suited to guide us, not politicians and generals who "do not know the world into which they are leading us." Conventional humanists, he names Matthew Arnold, equate scientific knowledge with crass materialism. George thinks that the problem concerns utility: "If I study anything for the sake of utility, this may increase my usefulness and better my position; this will not enlighten me." Science certainly "enables us to extract from nature for the benefit of all men, wealth untold and treasures beyond the wildest dreams of avarice." He affirms, "it would be mean to cultivate science only because it pays to do so, but it would be incredibly foolish to believe that it can have no spiritual value because its material value is so immense." He warms to the main point: "Science is the search of truth and, insofar as our quest has been successful, it is truth itself....the foundation of everything, the axis of our life, the substance of our reason, the key of our fate." The revealing of truth proceeds without reversal: "Whenever a particle of truth was finally established, it was established forever; the advance might be slow but it was certain. The history of science is nothing but the history of this protracted struggle between credulity and research, of this long series of partial deceptions and progressive discoveries." Knowledge, obtained in this way, enlightens human kindness, "it reduces the appalling danger of blind and misdirected generosity." In a phrase evoking Jesus, George offers that the noble sentiment love is the intermediary of enlightenment. The proof of this contention is in the obligation of truth seekers to give it, "liberally, to all who may want it." Kindness, then, as Beethoven remarked, is the surest sign of nobility, and the visible sign of kindness is charity. George's long prolegomena leads to a focus on the human circumstances of scientific discovery–including struggle, egoism, and perfidy. Revealing that side of the "Human Comedy" provides scientists with "a proper sense of intellectual values." And in pursuit of that goal, historians should strive to be brief, identifying themselves with "one great work or one single ideal." All these points relate the New Humanism, which will complete against the Old Humanism, that is to say, it announces the relevance of the history of science as a field of scholarship. George concludes:

> The historian of science has in him the stuff to make a complete humanist, but he will fail altogether to be one, unless his knowledge be tempered by charity and seasoned with tolerance and humor, unless he be prepared to consider every scientific achievement almost in the same spirit as a work of art, unless he have trained himself to take the whole of life into account.[21]

Truly, *tout est dans tout.* George's logic breaks at a number of points. His philosopher colleague at Harvard Alfred Hoernlé, for example, criticizes George for holding in this article that truth is "co-extensive with, and limited to, science and the use of scientific methods," a view that does not take account of the limitations of science.[22]

Art, apparent in "Knowledge and Charity," runs like a red thread through George Sarton's life. His friend Emile Masson emphasizes that from his youth (the two corresponded beginning around 1905). George was captivated by Jan and Hubert van Eyck's triptych, "The Adoration of the Mystic Lamb," displayed in the cathedral of St Baafs in Ghent, and he especially appreciated Jan van Eyck's "Madonna from the Inn's Hall" showing the Virgin reading a book, which he took as an allegory of science.[23] The promoter of a discipline of history of science saw art history as the reverse of his medal. Across the first three decades of the 20th century, he published on art and artists, and he considered founding a journal for the history of art to complement *Isis.*[24] Mabel the artist was the yin to his yang. The struggle of artists offered him secular saints, just in the way that the struggle of scientists did. He heard

Feodor Chaliapin on 15 April 1923, and remarks in his diary that the singer "worked as an apprentice to a shoemaker in the same street where Maxim Gorky was toiling in an underground baker's shop."

George Sarton selected his authorities for art carefully. He cites William De Morgan's "Result of An Experiment" (published anonymously in 1909) in his diary on 1 March 1923:

> It is the best thing on Earth—that incessant struggle....Art is more important than you think. But it must be earnest, grim life-earnestness that has no tincture of gain in it or love of earth-fame, only the strength of one's arm, & the whole power of one's being is to be given to it; and to look neither to the right nor to the left, but go straight on doing the best that is in one.

The source of the quotation is revealing. William De Morgan and his artist wife Evelyn, inspired by the Pre-Raphaelites, undertook experiments to collect automatic writing, allegedly the communications of angels and spirits. George flirted with spiritism in his youth, and he comes back to it through friendship with physicist Daniel F. Comstock and parapsychologist William McDougall at Harvard.[25] In middle age, George is still a youthful bohemian in spirit, spending more time and money than he has on *Isis*—his writer's canvas—and Mabel is tiring of it. Did they sense how much they resembled Puccini's Rodolfo and Mimi? They never comment on *La Bohème*, although Somerset Maugham's portrayal of artist Paul Gauguin moves them both deeply.

Building for the ages is a daunting prospect in academia, as in other walks of life. Taste and fashion evolve: The Clarendon physics laboratory at Oxford, for example, originated in monies dedicated for an equestrian academy. Sources of funding suffer the indignities of economic change: Family men hesitated to accept Isaac Newton's Lucasian chair at Cambridge, endowed in the seventeenth century by annual rents worth only £100. But George Sarton did create the foundation for a grand structure. In a typewritten text of an article appearing in March 1917, composed after June 1916, George outlines "an *Institute* dedicated to the History of Science and Civilization." It is likely that Mabel assisted him in writing it or, perhaps, in typing it.[26] George and his family were then in exile, living precariously in Cambridge, Massachusetts, where he lectured at Harvard University. In his text, George emphasizes that "science is the very bedrock of our modern society, it is 'man's true universal language,' and it is the strongest force that makes for the social unity of our civilization." Immanuel Kant proposed that "the object of universal history" was "the growth of a universal community pursuing a common purpose." More than a century later, that purpose is seen as "the creation and diffusion of beauty and knowledge." Science alone is universal and progressive. History of science has as a goal "the genesis and the development of scientific facts and ideas." All the sciences had to be studied together, a point emphasized by Auguste Comte, who understood that the history of science "is the logical basis of any philosophy of science and indeed of any philosophy." George desired the institute to be engaged primarily in research and only secondarily in the training of teachers. His model is the astronomical observatory, where each associate has a task "according to a general plan and in proportion to his own abilities." This kind of institution is just the thing "to raise the intellectual level of the nation," and it "would make it easier to graft on the young and strong American tree all that was fine and great in the earlier Eastern and Western civilizations." If his plan succeeds, it would be "the cradle of a New Humanism." George's notion of the material conditions of the institute includes a library, offices for the fellows, "iconographical collections," and photographical facilities. He indicates two institutes as models for what he proposes: Karl Sudhoff's institute for the history of medicine in Leipzig, and the late Karl Lamprecht's historical institute, also in Leipzig. Assets that could be acquired by the institute include George's own library (abandoned in Belgium), his friend Arnold Carl Klebs's library in Nyon, Switzerland, and David Eugene Smith's library in New York. The institute could be supported by a society, "in the same manner as geographic or astronomic institutes." He gives as supporters a number of prominent American scientists and historians, and he provides nine historians of science and medicine who approve of the plan: Smith, Klebs, historian of biology William Albert Locy at Northwestern University, historian of Asian technology Berthold Laufer at the Field Museum of Natural History in Chicago, medievalist and historian of medicine James Joseph Walsh at Fordham University, William T. Sedgwick and Harry Walter Tyler of Massachusetts Institute of Technology, friend and patron Edward Clark Streeter, and medical bibliographer Fielding Hudson Garrison in Washington, D.C. Sarton included, we see here a minion for the discipline of history of science in the United States. Within the decade, a number of these players rallied to George's cause and founded the History of Science Society. The Dibner Institute at the Massachusetts Institute of Technology, created in 1992 from the estate of George's friend Bern Dibner, finally realized George's larger project.

Persistence wins George Sarton a research position with the Carnegie Institution of Washington. His stated project–never realized–is an exhaustive study of Leonardo da Vinci. A maiden publication on the topic appeared in *Scribner's* in 1919. George focuses on themes that relate him to Leonardo. He emphasizes that Leonardo was taken

from his mother at an early age (George lost his mother as an infant), and that his father had four wives serially (George's father, chief engineer of the Belgian railways who died in 1909, never remarried but was not immune to female charm): "A motherless, brotherless, lonely childhood, we cannot lay too much stress on this; it accounts for much" (George, an only child, had few friends). Leonardo served many masters, some of whom failed to appreciate his genius (George, by this time in his life, had worked for half a dozen employers). He was a solitary man, who died before his time. "Only those who have known suffering and anxiety can fully understand the drama and the beauty of this life" (George worried continually about Mabel's health and about making ends meet). Then to Leonardo's observations of nature and his mechanical contrivances, including flying machines. He practiced inductive philosophy 150 years before Francis Bacon. His manuscripts provide a unique window into the creative genius who applied the "spirit of craftsmanship and experiment to the question for truth, its sudden extension from the realm of beauty to the realm of science." Elaborating 5800 pages of Leonardo's manuscripts would be George's task. He concludes by placing a message in Leonardo's mouth: "To know is to love...My life was one long struggle with nature, to unravel her secrets and tame her wild forces to the purpose of man....A literary education is no education. All the classics of the past cannot make men....The study of nature is the substance of education–the rest is only the ornament. Study it with your brains and with your hands." Then George speaks: "We must try to reconcile idealism and knowledge, science and art, truth and beauty....In the last analysis, that is what Leonardo tells us, and it is also the message of the New Humanism."[27] The New Humanism, George Sarton's shorthand for history of science, becomes the signature for an academic discipline by the middle of the century.

For a major figure among scholars, George Sarton was slow to hit his stride. As compensation, he corresponded with ferocious intensity, a passion shared by his wife Mabel. The young couple held their early exchanges so dear that, before they left Belgium for the Netherlands as refugees at the beginning of the First World War, they buried their correspondence in the garden. Friends subsequently deposited the letters in a vault at the Banque de Flandres in Ghent.[28] In 1920 George brought the letters to Cambridge, Massachusetts, without opening them. "To-day I opened one of the packages, hers–but could not bear to analyze the contents," George writes on 5 May 1950, following Mabel's death. "I lack the courage to destroy them as they perhaps deserve to be destroyed," he continues, and he prefers to leave them to the scrutiny of "indifferent and objective hands."

Mabel and George Sarton were indeed devoted to the epistolary art. Mabel's mother observes to Mabel's friend Céline Dangotte around 1901: "I do not like writing letters. (Where does Mabel get her love for it from I wonder?!!)"[29] They would plan their day or week to be able to write to each other at length. On occasion, they would write twice or even three times in a day, the letter carrier becoming almost a private courier. They wrote frequently to each other when they were separated by long distances, and also, before they were married, when they both lived in Ghent. (Their residences in the core of the medieval part of Ghent were a ten-minute walk apart.) In the years before the First World War, mail traveled efficiently across Western Europe. A letter mailed by George in Ghent could arrive later the same day with Mabel in a small Swiss town. Urban delivery could take a matter of only hours. The system allowed George and Mabel to elaborate thoughts with precision and conduct a dialogue when ideas were still fresh in mind. Mabel's and George's lodgings in Ghent and in America had a telephone. But instead of speaking, each preferred to set down intimate thoughts by hand. When they were apart, letters continued a conversation of theirs, whether during the day or weeks previously. On occasion, letters over the course of many days were posted together. George sometimes cried for letters from Mabel, if only a few lines on a postcard; Mabel felt a mixture of fear and excitement when she opened a letter of George's. A long letter from Mabel to George on 26 February 1925 begins: "I must come & talk to you. Letters are dreadful things are they not? & yet so precious! (Even when they upset me of course I would rather be upset than not have any letter that week!)"

The Sartons' exchanges are unusually frank and forthright. On 14 July 1923 in Ipswich, England, Mabel is happy to receive George's and May's short letters, even though, in French, "they told me little of importance." In their correspondence, they often bare their deepest concerns. This feature is especially interesting because the language of their early letters is French, by then a highly inflected literary vehicle. The straightforward prose results in part because they set down emotions without the advantage of sharing a mother tongue, although it is also an expression of their character. They kept secrets, but dishonesty was foreign to their spirit, and they both sought, above all, essential qualities in life. For example, on 10 May 1915 Mabel writes to George. Mabel is in England, convalescing from measles; George is in Washington, perilously beginning his academic career in the United States. Mabel returns to the matter of her illegitimate birth (her parents married a short time later). She wonders if George spoke about it to a colleague, with whom he worked for a number of months in the War Office in London:

Tell me, did you perhaps tell him the circumstances of my birth? All that wretched thing, it has been

> haunting me. Can you understand how grieved I am that these facts, against which *I can do nothing*, can be an instrument against *you*? I did not imagine they could be of such importance, even break your career. That is a terrible thought. I loathe having *something to hide*, something one is *afraid* should be known! I feel almost that if I were *alone* I would go to the other extreme & sift my friends & acquaintances by telling them the truth as quietly as possible.

She needs to obtain travel documents from the Belgian Embassy, and when she goes there she will do her best to keep the matter secret. "One thing I have decided: When she is big enough, May shall be told. I myself will tell her."

The first part of the correspondence is almost entirely in French, until in 1910 George began to write in English. George records, in his manuscript biography of Mabel, that early in their relationship "we always used *my* language, which she knew, not *hers*, which I did not." He continues that in 1909 he took a Berlitz course in English, but the instructor advised him: "You will never be able to speak English properly." (His diary indicates English lessons from September 1907 into January 1908.) George writes to Mabel in 1910 (perhaps on 16 May), to thank Mabel for her beautiful book bindings: "Never fear to speak to me in English, for I adore to hear it spoken. The few words that you have spoken to me have given me pleasure." Yet George indicates in his unpublished biography of Mabel that he could not read English books aloud, in the early years of his marriage: "I could not read well enough nor could I understand what was read to me." George's American correspondent David Eugene Smith compliments him on his English prose in 1912—"It is almost without a flaw"—although Mabel is likely responsible for the result.[30] As late as 26 February 1925, Mabel wants to make sure that George understands her recent letters, where she identifies in him "a frightening vagueness concerning, not only future obligations but *existing ones*." Mabel "thought you were worried very much & *afraid to tell me the whole truth*." She wonders if the problem is George's style: "In spite of wonderful ease you do still use English expression queerly." His delivery, forged in positivism and Belgian socialism and tempered in reaction to American pragmatism, radiated authority and abstraction, making George a difficult man to know.

Mabel and George Sarton admired writers formed in the nineteenth century–Carlyle, Ruskin, Maeterlinck, Romain Rolland, Fromentin, Tolstoy—and they read omnivorously, but their own writing is for the most part the uninflected, workaday prose favored among practical people early in the twentieth century.[31] Style among younger academic writers declined dramatically at this time. One is tempted to associate the decline with the great democratization of universities, which saw enrollment growing in leaps and bounds; increasing teaching burdens on the shoulders of younger scholars; and a desperate contest for visibility in the specialist, periodical literature, required for landing a university chair. The plain-speaking that echoes in their correspondence with each other radiates earnestness and authenticity; it is when they try for metaphor or allusion that the words fall flat. George and more often Mabel are confused or upset by figures of speech sent by their correspondent. Each knows that something is not right when the other dwells too long on abstract matters.

The intense passion of family life is clearly revealed in correspondence. George asserted from the beginning that his work would come before wife and children. He writes to a close friend, Raymond Limbosch, on 11 July 1907 that his "life has quite gone in one direction," that he has "a ministry [apostolat] to fulfill." Furthermore, "everything is subordinated to my purpose: my life, that of my wife, of my children, if I ever have any, that of my friends. Whoever hesitates in the face of the sacrifice is not worthy of undertaking great things. God has not chosen him."[32]

The religious streak apparent here marked George for his entire life, and he was especially drawn to religious authors. He confides to his diary on 21 April 1904 that Francis Jammes will be his spiritual guide. To Mabel he writes an enthusiastic postcard on First March 1911: "I like Francis Jammes more than any other author in our time, & I was often shocked & saddened to feel that he was not entirely understood." Jammes, the French poet and novelist, is by then the apostle of *naturisme,* a reaction against Symbolism where the focus is on common, everyday occurrences. Jammes converted to Roman Catholicism in 1905 under the influence of Paul Claudel, and in 1911 the first volume of his novel about a Catholic peasant family, *Les Géorgiques chrétiennes,* appears. In a letter to Mabel of 1 November 1906, George writes that for the past two years the only author he reads regularly is Ernest Hello, whose work *L'Homme* (Paris, 1872), into a seventh edition by 1905, he admires. The book is a collection of essays divided into the themes of life, science, and art from the perspective of Catholic theology. Hello, in particular, rejects Descartes's separation of spirit and matter. It may be imagined that George, a socialist attracted to the religious life, was particularly struck by Hello's emphasis on the synthetic union of nature and mind, and also, perhaps, by Hello's lives of the saints. The sense of unity guided George into middle life. He emphasizes to Mabel

on 9 November 1924 that he is increasingly persuaded of the "unity of the world & my own utter insignificance in it." Furthermore,

> I deeply respect the religions of other people, however absurd its form, if it be genuine. I do not simply respect their religion, but I love it—through them, because of them. It is *their* form of the ideal beauty & justice & truth; however different in appearance, it is not essentially different. It tends towards the same direction."

For George Sarton, the Bible instructs that "the difference between the ignorant & the learned, the fool and the wise is not as wide as it may seem. If their hearts are right, they are almost entirely right, I am sure." In the course of his life the sentiment attracts him to a wide variety of universalist philosophies, from Transcendentalism and Theosophy to Buddhism and Christian Science.

Mabel Sarton did not share her husband's religiosity. On 23 November 1924, writing from Europe to George in Cambridge, she comments on lines of his about advancing along a road toward his goal:

> In my thoughts I saw you so clearly trudging along & I saw myself beside you, sometimes having to run to keep up, & sometimes walking hands in yours a step in front of you, helping you along. I followed "us" for miles & miles, with me playing back & forth like a little dog, & I felt so deeply proud & happy, because you *really needed* me, to help you along towards your goal. If I took a bye-path, you kept looking for me & you walked near slowly. It sounds quite commonplace written down, but it is something I cannot forget, & your letter gave it to me. You have to be strong for your work, & for us, but *you need us* too, even for your work.

She knows that George loves them, her and May, but only now does she know what she hoped, that he needs them. "I feel quietly sure you need us, not just to round out your life, a sort of ornament to it, beautiful but outside it, no, as a necessary part. That is like a quiet, sure hand that comforts the frightened part of me." Mabel turns to George's thoughts about the unity of the world. "I *cannot* see the unity. I *cannot* accept the horrors & unspeakable anguish which puzzled, racked humanity (& animals too) goes through. I *don't* understand & cannot say I am [illegible] to believe there is an explanation." She cannot be happy because of the suffering of others.

> Nature? Yes, outwardly so alluring, so beautiful, & always beneath the beauty, pitiless cruelty, pain, decay, death. The beauty appears to me, & the happiness, an inexplicable accident, a surface thing, a deception which makes the reality worse & more hideous, like the flower a butcher places on the bleeding carcass. There is only one thing I adore & know to be beautiful & true—love—unselfish love—the instinct to protect & *to give.*

Religious explanations are only creations of the human mind. "The whole difference is that you accept & I cannot. You believe there is a pattern, an answer, a unity. I see darkness, with one simple shining frail thread." George

> will say: after death & decay, absorption & resurrection. And I shall say, the pain & death & decay will *go on* repeating themselves. What is the good of beginning over again if for most creatures the sum of pain & fear is so much greater than the happiness? And it is not *our own* that is the worst. The moment we love, we suffer infinitely more for the beloved than ever for ourselves, & most often we are quite helpless.

Here, in starkest terms, is how a scholarly discipline hung on a marriage, and here is also a difference in spirit between wife and husband.

George's sympathy for people of faith suggests that he is familiar with sacrifices of children to garner divine favor in Antiquity. Among the sacrifices he asked his family to endure is placing his daughter May on God's altar. On 11 June 1915 Mabel writes from Manchester, England, to George, who is teaching at the University of Illinois. She is beside herself with George's thought that May, then 3 years old, be given to Mabel's relation Katherine Lady Barker. "I have been startled & rather upset by a letter from Katherine enclosing yours, with the suggestion of her taking May for an unlimited time." Mabel reflects: "Ah Beloved, it has been such a revelation to me, that letter of yours & if it has not at all succeeded in its set purpose, it will yet have brought much good to us all three." Mabel is seriously ill with measles and depression. She appreciates George's desire to care for her, but "it is absolutely impossible for me to give up May to *any-one*, however much I like & trust them, for more than a few weeks or months. I hope it will never be 'months' again." Mabel is grateful that George wrote the letter, "except for one thing: I have a hurt, sad feeling because you thought I would consent to give up our little daughter for so long, perhaps years. May-be it is my own fault though."

Two years later Mabel was pregnant. She waited to give birth in Cambridge, Massachusetts, while George taught summer school at Columbia University. On 28 July 1917 George writes a somber letter:

> Sweet & good wifie,

I am extremely unhappy because I am anxious about you & the little one, & also–and not less–because I am not at peace with myself. I cannot be happy when I do not work, and I feel that I do not work enough. It is true I am delivering some good—some very good lectures—especially in my course in the history of mathematics. But I do not do any serious work outside of that, & I have never felt more lazy & dissipated. I have been reading—I do not say studying—a lot of Arabic & Chinese literature, but without enthusiasm & my soul is slumbering. It is true that I do not read a line without a purpose, a single purpose, & that these desultory readings contain much fresh material for my own thinking, but my soul is slumbering, and I am cold.

I am also unhappy because I have just realized—too late—that I should have left yesterday night to visit you in Cambridge. I might have been there in time to welcome our little son & cheer you up. But maybe you will not be delivered until your own birthday.

I do not call you "beloved," although you are the beloved; neither dare I kiss you because I feel in disgrace.

Your husband
George

Mabel replies on 29 July:

I am a little tired of waiting & of the heat & of our separation, that is all. Don't pay any attention if I seem depressed. There is *no* real reason to be so on 'our' account. Quite the contrary. So let your heart take courage.

But oh! How lovely it would have been if you had come. Still I would rather it was at *the* time & not before! & though I long for it dreadfully I do not feel we ought to give way to our longing because of the expense. Do you know it helps me so just to know *you wanted to come*!

Mabel tries to cheer him up: "Just put your hand in mine & feel that I am not only the Beloved, but the Comrade too, so near, so near to you. Don't you feel that? I feel it so for you! You are sometimes a hero to me, but you are sometimes just a dear, faulty human being, to whom I dare confess my weaknesses & be helped & comforted, as no 'always-hero' could do!" A son was born and died after several days of a congenital bowel obstruction. George may or may not have seen his son alive.

Just as the Sartons represent modern parents, for whom children are a blessing as well as a burden, so they were no strangers to conventions of their time. George, in his English publications, refers to mankind and men of letters, and in French to l'Homme. George is conventional in viewing women as objects of desire, and early bugbears, in popular publications, are "snobbish women" who have a bit of university-level education.[33] Readers interested in sexing prose, as one might sex a chick or kitten, could find grist here for their mill, notwithstanding the fact that some 10% of George's professional correspondents are women—a large fraction for the time. I prefer to think that a more credible picture of George's and Mabel's sexuality, as well as their views on the gendering of knowledge and art, emerges from their intimate notes and correspondence. In his early publications in English, where women snobs appear, George wrote for money, and he certainly knew what would sell. There is not the slightest suggestion that George ever resented Mabel's artistic success as a designer or, later, his daughter May's success as a woman of letters. All evidence supports the contrary assertion.

Race is a word appearing often in their writings and in their correspondence, but both George and Mabel were explicit about their disgust with racism. Mabel Sarton, in Washington, writes to George, then lecturing in Worcester, Massachusetts, on 14 April 1916 about Mathilde Lafontaine, wife of Nobel peace-laureate Henri-Marie Lafontaine. She is "the very antithesis" of Henri-Marie, "& she must surely do him a good deal of harm by her tactlessness & fanatical ideas." In French: "She is a *hateful,* nasty, *stupid* woman." And the worst of it: "Then she spoke about Niggers, finally a detestable mind." Mabel finds Mathilde Lafontaine "just as the worst Germans are, with their stupid and criminal hatred."

The condemnation of racism derives from the Sartons' ideals about human rights and pacifism. Fellow Belgian exiles Henri-Marie Lafontaine and George Sarton made common cause, even though their views of pacifism differed. George inclined to be internationalist to a fault, while Lafontaine was more attuned to the compromises of practical politics. Lafontaine, for example, did not share George's view that Germany and Austria were victims of militarism, and he could not imagine a Paneuropean political union.[34] George honored his principles more resolutely than Lafontaine did. When he declined to lecture to the Navy League because it was too jingoistic—even though he desperately needs the honorarium—George Sarton records by way of justification: "I am resolutely and at base a pacifist. But I believe that one of the conditions of peace is a solid national defense."[35]

Sigmund Freud cast a long shadow across the first part of the twentieth century, and especially so when the intimacy of man and woman is in question. George Sarton observed psychoanalysis in the second number of his periodical, *Isis,* in 1913. In 1920, reviewing Freud's study of Leonardo da Vinci, George delivers a stunning rebuke:

> Those who wish to know to what degree of absurdity Freudian psychoanalysis can be carried—and that by the Master himself!—have only to read this book. These complicated and extravagant theories based upon the scantiest and most uncertain facts are a credit to Freud's ingeniousness rather than to his critical spirit. It might be time to make a psycho-pathological study of Freud himself![36]

Dreams, childhood deprivation, and sexuality all have a place in the marriage, but psychoanalysis and psychological theory would be too heavy a burden to place on the shoulders of the Sartons. The thought of psychiatric help never occurred to them, even though they—like their daughter who did consult a psychiatrist—were surely candidates for it.

May Sarton, daughter of Mabel and George, is present through much of the story of her parents' life, both as a commentator and as a participant. She is widely known today as a feminist poet and writer, in part because she is one of the earliest women in the United States to acknowledge in public her own lesbian, sexual preference. In fact there is very little sex in her writings, which are almost Platonic in their search for purity and essence; May Sarton shares this stylistic orientation with Mabel and George. A reader may seek the origin of May's sexuality in the account of her parents. Is it nature or nurture? Both May and her authorized biographer have emphasized her unusual upbringing—lacking a permanent home, ignored by a possibly neurotic mother and a self-confessed, emotionally-arrested father.[37] But Mabel and George are deep and sympathetic figures, and they raised May creditably and honorably. Whatever material shortcomings there were in May's youth, she was guided by two passionate intellectuals to appreciate the life of the mind—something intellectual parents strive for today. Evidence is available for Mabel's hormonal imbalance in the years before and after May's birth; to correct the imbalance, she was one of the first women to receive hormonal therapy.[38] It is an open question if this circumstance is the origin of May's constitution.

Sex occupies a relatively large place in Mabel's and George's early correspondence, as it does in the life of many young people. Documents provide an unusually complete picture of their sexual life, which they observe without prudery. In 1910, for example, they correspond intensely about the writings of Auguste Forel, the Swiss psychiatrist, entomologist, and sexologist. Mabel Sarton has read almost half of Forel's study of sex, she writes on the 17 June 1910: "It is a beautiful book."[39] Her views about Forel evolve. She continues the next day:

> Forel's book brings up many things. I know very well that the sexual question was very complex and difficult to resolve, but I understand it ten times better now. If the book made me calmer, it also raised a problem so agonizing that I must bring it up. I find myself calm because now I *know*. However, it shows that a man has sexual needs difficult to please, which must be satisfied before the age when he may normally marry. So he [Forel] easily admits that houses of prostitution are a necessity (in one form or another), and so there will always be women dedicated to this role? And he shows that the class of women for whom this is natural is very, very small (they are aberrant people). So these women will be eternally victims of the situation, "*inevitably.*" This revolts me and saddens me. I do not see a way out. He gives no hope. *The two physical natures of man and woman are then not in harmony* on the level of humanity.
>
> I fear that what I say to you will seem rather futile, with your way of reasoning. Yet I must think about it more, before seeing in a clear way my own conclusions. Also I must finish the book. I think I will read everything. I am beyond the middle. But I want to reread before continuing because I have not at all assimilated enough.

Finishing Forel on 19 June, Mabel writes to George that she is left "with an enormous weight, thinking about all the misery and degradation that most of the book evokes." She can't accept his conclusion that women should marry between 17 and 19 so that men's sexual needs may be satisfied normally. Even if a woman is completely formed from the sexual standpoint at that age,

> from the moral and mental point of view, *she certainly is not*, in my view. I know no young girl of that age who is capable of choosing the man who will really complete her life, and above all I know none of that age capable of *raising children well.* I can imagine no future where they will be so. If it happens, it will be at the price of an *attenuated* childhood and adolescence, and I give great importance, on the contrary, to *a real adolescence*, long enough for a character to form joyfully, freely, slowly. He supposes perhaps that men carefully use *for a number of years* the contraceptive devices that he describes? I don't see it at all. The men who are capable of that will always be exceptional, I am sure of it. And then he often easily recognizes

how difficult it would be to eliminate, even to improve the conditions of prostitution. It seems to me that in fact the conditions will change and improve, but the essential fact will remain. This is a sad, sad, sad thing.

Mabel Sarton's views seem close to those of Iwan Bloch, whose 1912 treatise on prostitution received a review by George in the first volume of *Isis*.[1] It was something George knew first-hand. A compulsive note-taker, he regularly recorded coitus by making a Maltese cross in his agenda. The evidence, which seems conclusive, indicates that at several points in his life, he was unfaithful to Mabel. George's attraction to Forel extends to personal hygiene. According to his diary, George becomes a "strict" vegetarian on 16 February 1908 and also gives up alcohol, joining the Ordre international des Bons Templiers, a temperance organization promoted by Forel.

Concluding his study of historian Thomas Carlyle and Jane Baillie Welsh, Osbert Burdett notes: "Records of any marriage are as rare as they are precious." Burdett emphasizes:

> The story of the Carlyles is an authentic history substantially repeated in a thousand homes. It holds, interests, and at times exasperates us, as living problems do. The love, and the difficulties, the misunderstandings and the unity, the friction on the surface and the devotion at the core, are the mirror of the confusion of daily life.[40]

But the remarkable, epistolary exchanges of the Carlyles, for whom some 10,000 letters exist, are silent about marital sex, leaving us to infer intimate matters only from the gossip of acquaintances.[41] A recent biographer emphasizes: "No amount of speculation, or reviewing the speculations of others, can take us further into the mystery at the heart of this, as of any other, marriage."[42] The Sartons mirror the Carlyles in a number of ways: Their long engagement and turbulent marriage, their sense of ease with the cultures of Western Europe, the self-imposed isolation of the writer-husband and the resentment of the sensitive, invalid wife, and their compulsion to write. Still, the paper trace left by the Woolfs, notably Leonard, is perhaps closer to what we have from the Sartons, especially George. Lord Annan summarizes:

> Leonard Woolf, counting the dates of Virginia's periods because he had detected a correlation between delay in menstruation and her bursts of manic depression, became transformed from the devoted husband into an anal monster whose so-called concern for her health was on a par with his habit of keeping meticulous accounts, logging the number of miles he drove, recording the date he had his hair cut, the number of bushels of apples yielded by each tree in his orchard, the events of every day for fifty years and their exact expenditure and earnings.[43]

George Sarton, four years Leonard Woolf's junior, also married a woman with artistic temperament older than he, a woman who also wrestled with depression. Mabel Sarton, like Virginia Woolf, was a creator sustained by a husband who kept detailed records of his moral and material progress.

The Sartons were conscious from their young adulthood about the significance of letters for future times. They avidly read biographies and autobiographies as a part of their program for self-edification; on occasion, biographies motivate their actions. George writes in his diary on First August 1954: "I love to read biographies of great men but it is only the beginning that interests me, the years of struggle and more often than not, of misery. When success comes in I am ready to leave." Mabel and George Sarton did not write for posterity, however. They saw their letters as a record, for themselves, of their spiritual and emotional progress. They often reread and commented on past correspondence.

Mabel Sarton expressed the notion clearly when she visited the home of the Carlyles in Chelsea. She writes to George on 23 June 1910 that her umbrella was stolen (later she comments that she left it in Chelsea), but she does not mind because she was so impressed by the house. She read some of the love letters between Thomas Carlyle and his wife, Jane Welsh. In French in second-person familiar: "In general it displeases me very much to see such letters published. This time, I think that it was necessary to justify them both. I can't define why just now, but I felt

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[1]George Sarton, "Iwan Bloch, *Die Prostitution*," *Isis, 1* (1913), 284-5.

yesterday—intensely—that you resemble Carlyle." George indeed admired Carlyle, by virtue of Carlyle's correspondence with Welsh. He writes in his diary on 31 August 1910 about himself and Mabel: "I can say of us what Carlyle said one day of Jane Welsh: 'Has not a kind Providence created us for one another? Have we not found each other? And might not both of us go round the Planet seeking vainly for a heart we could love so well?'" It is a quotation he sends to Mabel on 18 February 1911, after parting from her in France. Carlyle was the historian who fired the mind of both the young and the old George Sarton. On 31 August 1905 he notes in his agenda the translation of Carlyle's writings by Emile Masson, with whom he became friends. To Andries MacLeod, son of the Flemish nationalist and biologist Julius MacLeod, George writes on 13 January 1947: "Your life in Vintjärn [Sweden] makes me think of Carlyle's in Craigenputtoch, where the silence was so deep that his wife, Jane, could hear the sheep graze."[44] Carlyle, whom George Sarton finds a kindred spirit, was foreign to many of George's contemporaries, notably Virginia Woolf, who visited the Chelsea house on 24 February 1909 in preparation for reviewing an edition of the love letters for the *Times Literary Supplement.* She writes about the Carlyle marriage: "It taxes our powers to the utmost to understand; the more we see the less we can label, and both praise and blame become strangely irrelevant." Woolf concludes after her visit: "Did one always feel a coldness between them? The only connection the flash of the intellect. I imagine so."[45]

The action of a life is not chronicled entirely in contemplative correspondence. In times of crisis, the courage or the will to write letters may fail. Even among people who may seem born to the pen, intense emotions can preclude discursive prose. When people live together, furthermore, they do not generally write to each other about daily occurrences. Supplementing the correspondence are George's diaries and appointment agendas. George kept these accounts for his entire adult life, and he was meticulous to a fault. Mabel also kept a diary. On occasion they showed their diaries to each other. George sometimes had an acquaintance write an address in his agenda. It is striking that George's diaries from 1907-1911 and 1914 are missing, as are his agendas from the early years of his marriage in Belgium. From early 1917 to June 1919 George kept his diary on cards, his "memindex"; he resumed a conventional diary at about the time he returned with his family to Belgium. The cards are unavailable, and Mabel's diary has not been located. George's missing diaries cover turbulent times, but in view of the material he preserved there is no reason to suspect that he destroyed them.

Because Mabel and George Sarton were much concerned with recording their moral progress, they were only moderately successful at isolating their professional life from their marriage. Mabel kept house, painted, and designed clothes and furniture. George published, lectured, and wrote countless professional letters. George referred to professional correspondence as a *besogne*, a task, and he tried to handle it as quickly as possible. In professional matters, he ironically preferred sparkling conversation to letter writing. His friends in Cambridge came from a wide variety of disciplines, as they did throughout his life. George's correspondence relating to his periodical, *Isis*, and his scholarly writings provide information about his personal life, as does Mabel's correspondence with Céline Dangotte, her adoptive Belgian sister, in whose enterprise in *art décoratif* Mabel worked as a designer through the 1920s.[46]

Mabel Sarton in fact established herself as a leading designer well before George obtained a comparable place in his chosen profession. Photographs of a number of Mabel's works appear in the 14 January 1911 number of the British avant-garde periodical *Studio*, accompanying an article written by the Belgian Symbolist painter Ferdinand Khnopff about the Universal Exhibition at Brussels in 1910. For the exhibition, Mabel had collaborated in the interior design of an entire cottage constructed by architect Oscar van de Voorde. In his article, Khnopff deplores the fact that the modern school of Belgian art was unrepresented at the fair, especially because the German exhibitors in art were explicit about their debt to Belgian colleagues. Khnopff observes that Van de Voorde follows Gustave Serrurier-Bovy's notions about simplification in art (which stemmed from the ideas of John Ruskin, William Morris and Eugène-Emmanuel Viollet-le-Duc). "The architect was fortunate in obtaining the co-operation of Mme Dangotte, who chose and arranged artistically the various useful and ornamental articles; of Mlles Mabel Elwes and Meta Budry, who designed and executed the mural decorations and embroideries; and of M. Acke, who made the furniture." The references are to Mabel's adoptive mother and to her close friend, Méta Budry. Then follow images of five of Mabel's embroideries, produced both by machine and by hand. The motifs are flowers and a pair of peacocks.[47] The exhibit was indeed a triumph, as Mabel's adoptive father Léopold Dangotte observes; many people commented favorably on Mabel's work.[48] The exhibit and especially Khnopff's review mark Mabel's arrival as an artist, at a time when George was still a largely self-published student.

Not only was Mabel a pioneering artist, but she was also George's coauthor. Late in 1914 the Sartons were refugees in England. George, working as a military censor, wrote an article about Belgium for Paul Carus's

periodical *Open Court,* and he asked Mabel to translate it into English for him.[49] It is likely that Mabel added ideas and substantive changes, for in a letter to Mabel of 22 May 1915, George calls it "our" article; certainly the text expresses the Sartons' common political credo. The article, "The Future of Belgium," opens the May 1915 issue of the *Open Court*, an issue devoted to Belgium; the frontispiece is Peter Paul Rubens's "Assumption of the Virgin." George is listed as the single author of the article. George begins by observing that one-eight of the population of Belgium is in exile; the people who remain are subject to deprivation and destruction. The cause is Germany's violation of Belgian neutrality. He does not want to discuss German atrocities. Rather, he emphasizes the broad social and economic reasons for the war, "a whole world of realities, arguments, sentiments, above all of instincts, where the worst is mingled with the best; a great deal of unconscious ignorance and of kindness worked upon by a few selfish and criminal intellects; rare ideals and a mass of human mire." George is sure that Belgium will emerge from the war wiser and showered in glory, while Germany will be dishonored for its treachery. He observes the tension resulting from 110,000 Belgian refugees in England, whose temperament does not fit well with English temperament. George concludes with a plea for maintaining Belgian integrity and independence after the war. "Small countries, well fortified and well armed, interposed between bigger ones –*états tampons* as they have been called–appear to me the surest factors in the European equilibrium."[50] Defensive fortresses are the key. "I believe personally that for long centuries to come it will be the peoples' duty to protect themselves by this means as it is the duty of individuals to put locks on their doors." The article repeated the contentions made by George and Mabel in an unpublished letter to Hamilton Holt's *Independent* of 1914 (signed by both of them), where they insisted that defensive armament does not contradict pacifism.[51] In their letter, the Sartons asked for reparations from the aggressors only for the purpose of an international foundation; in the *Open Court* article, George was in favor of heavy reparations from Germany after the war, both to Belgium and to an international fund.

In the publication of 1915 George recalls the plans for a world city designed by Hendrik Christian Andersen, aided by the architect Ernest Hébrard and a phalanx of collaborators. In October 1914, Andersen published a summary of his plans in the *Independent*, the periodical that received George and Mabel's peace plan in September 1914. [52] George, an omnivorous reader, may well have seen the summary, which would have recalled to him the third number of *Isis*, dated 6 November 1913, where he reviewed Andersen's plans. He said then: "Three centuries ago he would have been placed on the block; a century ago, he would have been confined to an asylum; but today, an intellectual élite from all corners of the world gather around him to express gratitude and sympathy." Andersen's undertaking promotes internationalism. "If the world center never arises out of bricks and mortar, will not at least the City of God, where original thinkers from all countries and all times find refuge, become more solid and real?"[53] In 1915, George is convinced that the world city "should be erected in Belgium, in the country sanctified by glorious wounds, and I believe that none of the other nations would protest." He is confident that Belgium will emerge "healthier and inspired with higher ideals." He urges America to organize a commission to investigate war crimes.[54] Andersen concurs.[55]

George hoped that an institute for the history of science could be grafted on Andersen's world city in Brussels. In modern and postmodern times, people devoting themselves to ideas face the crucial problem of patronage. It might be thought that everything turns on practicality, for in the nineteenth-century incarnation of Francis Bacon's New Atlantis, knowledge will cure illness and bring about a life of ease. But the nineteenth century also saw the rise of great museums, libraries, and humanistic institutions, along with eminently useless scientific institutions like astronomical observatories and vertebrate-paleontological collections. Morally uplifting endeavor is indeed prized by captains of industry and merchant princes, as George knew from his years in Ghent. With his move to America, George was struck by the pragmatism of his new environment. He sensed that it is insufficient to contend that history of science makes for better scientists, and he tried to hang his plea for history of science on whichever hook presented itself. In "The Future of Belgium," the hook is American shock at the rape of Belgium. Later in the war, in an éloge of fellow Belgian exile Emile Waxweiler, the hook is a new sociology.[56] Neither hook held firm. George's support, from the moment he stepped on American shores, derived from patrons who were interested in abstract ideas. The greatest supporters of arts and sciences wish to go beyond mere utility.

The available letters are clear that Mabel and George bare their soul to each other, but they do not reveal everything. In 1928 Mabel writes to the artist Lucy May Stanton, whom she regards as her spiritual American sister, about her partnership with two women in Washington, a company known as Belgart:

> I have literally to ship & spur myself on from day to day & even then am dismayed & frightened to see that I cannot make ends meet, of strength—or money. I ought to find some other way of earning (& have tried in vain) because Washington will never pay me I fear more than a "few drops" in the bucket.

> They can't—they don't make money. Twelve year's designing—giving of my best, & here I am where I started, from the financial point of view & I feel too old & too worn out to find a new outlet. I confess I am horribly depressed & have been since June.
>
> *I don't want George* to know too much. It would only upset him & he can't help. I have told him a little because it is not quite fair to him he should not know at all. He is a *dear*, you know—& as blind & full of the conviction that he is the traditional bulwark between me & worries, as any other husband![57]

George is also very close to, possibly intimate with, Stanton.[58]

George is remembered, by those who knew him, as a difficult, distant man. He spent his life scrambling for the leisure and the resources to undertake original scholarship of a synthetic nature. He was exploited by his employers: Harvard kept him as a poorly-paid lecturer for many years, and the Carnegie Institution of Washington, the source of most of his income, decided not to continue its investment in history of science when he retired. His close friends twice brought in a younger historian to supplant him at Harvard.[59] He persevered. From the time of his youth he tended to be curt in personal relations. In old age, he became curmudgeonly. In her early adulthood, Mabel experienced more than a decade of ill-health and frequent depression, but she won nearly everyone whom she encountered by her warmth and generosity. Mabel was immensely proud of George, and George continually credited Mabel with having licked him into shape, making him less of an *ours mal leché*.

The marriage has been analyzed by May Sarton, daughter of Mabel and George. May expressed strong feelings about George's single-minded devotion to his scholarly labor and Mabel's self-effacing support of it. (George was amused at May's earliest writings about his "table-talk," appearing in the *New Yorker*, and he corrected them silently.[60]) May is clear about deeper levels in the marriage, which records mutual love and devotion in the face of may kinds of adversity. It is also a record of the perils and rewards of academic life in the first part of the twentieth century, when women demanded to be treated as the intellectual equal of men and when academics sought support for their projects from universities. Tensions evident in the marriage later became structural features of family life. The reversals of poverty, war, and perfidy, of hopes unrealized and small courtesies unremembered, did not dim their common credo, established in the years before they married. Love, beauty, self-improvement, and human betterment are consistent themes in their life together.

Judgment is also a theme in the marriage. Mabel and George strove not to judge each other, believing that love transcends critical appraisal; they sought to be generous in dealing with other people. When, on 3 September 1919, Mabel closed up their home in Wondelgem and packed away their Belgian silver and jewelry, she found time to look through their correspondence:

> I also put all our letters down at the bottom of the trunk. George, I am so happy those letters were not at the mercy of the Germans. I re-read a few of yours of *1908*. They are such dear letters. I wonder do you realize what progress you have made since then on unselfishness & real tenderness & generosity not only to me but to every-one? I don't think I realized it myself. Not that you were not already trying hard to be all that, but you were still extremely passionate & intolerant. Now you are much more deeply, truly, tolerant than I am.

Generosity is not frequently ascribed to George in the authorized biography of their daughter, nor in testimonials and remembrances. Yet it would be a mistake, a century later, to look at the Sartons with a disapproving eye. They wrestled honestly with large issues. They succeeded, in the face of daunting obstacles, in raising one of America's most popular women of letters and in establishing a significant academic discipline. Their struggles, no less than their achievements, reveal the compromises that are endemic to intellectual and artistic life today. Their lives help define a great moment in civilization.

George and Mabel Sarton's sensibilities crystallized before the First World War. Among these sensibilities are their notions of art and literature, science and scholarship. The Sartons were certainly aware of radical breaks with the past during their lifetime: quantum physics, relativity, and abstract art. George, in June 1914, reviews the transformations in physics over the preceding decade that have "entirely modified the horizons of science": the revival of atomic theories and the notion of discontinuity.[61] George was interested in the new art and the new science, but he kept a distance from them. For example, on 9 February 1948 George writes in his diary about a "very instructive anecdote" related to him by his mathematician friend at Harvard, Philippe Le Corbeiller. Paul Valéry, whom George admired,

> met Einstein at a party given in Paris in the latter's honor. He asked him whether he carried a little book to note down ideas that occurred to him. As Einstein said "no," he began to explain the great convenience of doing so; he himself always carried such a book in which he had occasion to write many "ideas" every day,

which might have been lost otherwise.

Einstein replied smilingly, "You know, I have so few ideas."

Instructive also about George, the compulsive note-taker who knew Einstein personally.[62] In 1908 George saw several paintings of Pablo Picasso's, "a young Spanish painter still unknown who has an extremely original vision of life, but some of his canvasses are ghastly ."[63] Neither George nor Mabel was much impressed with non-representational art, and George expressed his views in publications on art history. In a letter to philosopher Horace Meyer Kallen, George emphasizes: "Our modern artists are rotten with irrelevant ideas. They want to know everything except their own craft, and the result is an awful mess."[64]

War and revolution are omnipresent in the Sarton correspondence, but there is relatively little about political elections. One senses that George and Mabel devoted their effort to works of inspiration, and above all to understanding each other. They sought balance and harmony, and they tried to avoid dissonance and iconoclasm. Late in life they each suspected that the world might not be governed by the ideals of their youth. Those ideals reflect the values of the first half of the twentieth century, just as pessimism, relativity, and materialism dominate the second half. The Sartons' notion of truth, justice, and progress animates the United Nations and the Nobel institutes, assemblies that, despite the odds, continue to radiate authority, respect, and hope.

Sometime shortly after 3 August 1903, George Sarton notes in his diary how he wants to be remembered: "He loved beauty and life, but he did not fear death. He wrote little but thought a great deal. He acted well in life. He was a friend of order, in a general sense, a friend of progress, above all a friend of logic and precision." In 1922 he emphasizes: "When people will ask 50 or 100 years hence what I did, I hope they will be told: 'He founded the history of science, he established it as an independent and organized discipline.'"[65] On the eve of rejoining his family in Europe in 1925, his life has indeed been played out according to his desires. At age 41 George was still evolving emotionally; Mabel, at 47, was philosophical. Money was a continual worry. After spending more than half a year in Europe away from George, Mabel writes that she fears that the happiness of seeing him again will be denied her. George the rationalist is unsympathetic: "I do not believe in forebodings except as indication of real conditions." Mabel's letter frightens George. Never again does he want to be separated from her for so long: "We have thrown away a year of common happiness."[66]

Making allowances for time and place, the Sartons in 1925 are not unlike their beloved Carlyles 90 years earlier, when Thomas Carlyle, having just rewritten *The French Revolution* from memory at age 40 (the original manuscript having accidentally been burned in the house of John Stuart Mill), was turning down offers of employment as he struggled to make ends meet. Since his twenties, Thomas Carlyle hoped for an academic appointment at the universities of Edinburgh, London, St Andrew's, and Glasgow in everything from mathematics, physics, and astronomy to moral philosophy, rhetoric, and metaphysics; George knocks on doors across Europe and America, asking for a permanent professorship. (Their ambitions are gratified only late in life.) In 1835, Thomas Carlyle vacationed in Scotland away from his wife, Jane; in 1925, Mabel spends much of a year in Europe away from George. Thomas Carlyle's remarkable work in the present tense appeared in 1837, the first volume of George's landmark *Introduction to the History of Science* in 1927.[67] Jane Welsh Carlyle was known and liked as the intellectual equal and firm supporter of her husband Thomas. In the same way, and notwithstanding her desire for an independent identity, Mabel Elwes Sarton provided support and understanding without which, it is safe to conclude, George Sarton would have lost his way.

Throughout her life, Mabel meditated on the meaning of love. Her affection for George grew deeper at the end. On 26 August 1946 she wrote about it in her characteristic way of connecting small particulars—crossed meaning in a conversation with husband and daughter—with large themes:

> I am writing this because I shall not have a chance before you leave in the morning & it is during the night that I decided I must tell you something of what is in my heart. How are you to know otherwise?—I know so little still of what is in *your* heart because it is not in your nature to open it wide even to me.
>
> I have hesitated more than once to speak of some little thing I had done that I suspected hurt you because I felt it was best for *you* to let it be forgotten quickly—but twice over the last days I have seen a hurt look in your clear face that has haunted me.
>
> You did not understand how it was we laughed when you began telling the story of Mrs Mussolini;-you see you used the expression "only the big tops" were to go to the ceremony. Now I think you meant the 'big bosses' but this expression "big tops" was extremely expressive & *funny* & quite new—a Sartonesque invention!—& it set a *mood* for the story which was entirely wrong. Now that was not our

> fault—nor of course *yours*. But it hurt you—& the more so that we were *two* against *one*—You must not feel this. I am for you *both*. I love you both with yearning for your happiness,-but you, my husband are more necessary to *my* happiness than May, dearly as I love her. I can let May go to live far away if necessary—I cannot imagine what life would be if you went away.

On Christmas morning 1948, after undergoing an operation for the recurrence of breast cancer,[68] Mabel writes to George:

> I have been thinking of you, and of this last year, and remembering how it troubled me that last night in hospital before the operation that I had never told you *how happy* I have been;-I have sometimes tried to tell you how I loved you, & for this there are other ways than the poor way of words: (just the *tone* of your voice when you call me "Mother dear,"—the tragic, *bereft* look in your eyes when you left me in that hospital room,—these told me more than even your dearest words & so I hope it has been with you)—but to convey to you, the rare not to be measured, happiness, that you have given me, that does need to be said, or you might never guess how deep it was—(& if I had died, one of my last bitter thoughts would have been "he will never know")—but as I lie thinking of this, I realize that happiness is something that refused to be caught in any net of words—that as May says in her poem "Growth of happiness"—it is an inward, invisible thing as mysterious as life itself, nourished from without but also from roots that go wide & deep, far out of sight. In a thousand ways you have nourished those roots, but all I can find to say is "how happy I have been because of you."
>
> One more thing I'd like to tell you: I am humbled, by what people write about my courage: I believe that there is a sort of miracle still granted to us, by the faith we place in those we love: When People believe us to be better than we are, we become better, in a quite extraordinary degree. Because you & May counted on me to be of good courage, it helped me, & continued to help me, to have at least *some*,—so go on believing me to be much better than I am!—(I am often impatient, sometimes discouraged,—but never mind! Often the mood passes, with the help of your confidence in me.)

Like her husband, Mabel Sarton associated love with creative work. She comments in a letter of 14 January 1928:

> Yes, it is very true that to lose oneself utterly in love or work or play is to be purely happy, but the remembrance of love, (not its deliberate analysis) can have a poignant, trembling loneliness of its own, like the reflection of a star in a deep pool,—& there is a pure & almost impersonal joy in the realization that some piece of one's work is beautiful and true, a joy which nothing can surpass—it is literally a divine gift, undeserved possible?—one does not feel any person aggrandisement, rather a kind of illumined humility. One works & works with intensity (or laboriously) with a sort of blindness that gropes & struggles & suffers & doubts, & then one day, out of the rough incompleteness, emerges a blossom, a crystal of truth, that you have to recognize as such, with a throb of joyful recognition.—It does not so much matter that it be a large & important thing, or a small & to other men's eyes, insignificant thing, so long as, within its scope, it has this quality of "completeness." It does not come often, but seems to me the very reason of living. I get it once in a while, with my work of designing. I would starve if I never had it.

George knew at least that Mabel was his compass. On the day of Mabel's death, George writes to his old friend Horace Kallen about a commitment to lecture at the New School in New York. Mabel will die very soon, George reports, but her death "will not prevent me from doing my duty in N.Y. next Sunday." He continues: "My life has been a torture during the whole summer & autumn. We have been married almost 40 years, without ever a cloud except her poor health."[69] A dispassionate observer of George and Mabel Sarton might gloss, If never a cloud, then surely lightning struck out of the blue. Absent is Carlyle's remorse at the pain he caused his wife, just as George had ignored the remorse nearly 40 years earlier, even though he received periodical warnings about it from Carlyle's French translator. When George was struggling with placing his journal *Isis* on its feet, Emile Masson advised: "Friend, why not leave off *Isis* for Mabel, now and again? Remember Carlyle. Remember Jane Welsh, notably *Reminiscences*. What a lesson—*grande & terrible*."[70] George reserved for himself and Mabel an apotheosis resembling the one his early inspiration Auguste Comte conferred on Clotilde de Vaux.[71]

In his chosen discipline, George Sarton was a buccinator, an advocate, but those who mattered in the calling knew George's measure. The forum, which George tirelessly addressed, dignified his undertaking: *Newsweek*, in 1947, called him "the world's leading historian of science"; shortly after his death, an advertisement for women's fashions in *Vogue* featured a twiggy model carrying a Dover edition of two of his short books.[72] The first volume of George's *Introduction* sealed his fate in America as a scholarly generalist. His great circle of colleagues provided a turbulent education for his daughter May and a continuing stream of dazzling personal contacts for his wife, a

recognized commercial designer in America and in Europe whose talents were sought by élite private schools.[73] Science progressed, of that George was sure. But it was above all in his marriage where George Sarton measured his personal progress by experiences shared and truths won.

Illustrations

1. Mabel Elwes, by Francis R. Elwell.

2. Mabel Elwes, Antwerp, October 1907.

3. Mabel Elwes, *circa* 1914.

4. Mabel Elwes, *circa* 1920, in a dress of her own design.

5. George Sarton as a toddler.

6. Young George Sarton, titled "Les deux amis" and presented by George to Mabel Elwes on 14 January 1909.

7. George Sarton *circa* 1900.

8. George Sarton *circa* 1911.

9. George Sarton at work, Widener Library.

10. George Sarton *circa* 1918.

11. George Sarton at home in Cambridge, Massachusetts, presumably 24 Agassiz Street. The oak sideboard and the portrait, probably of the *seigneur* Duvet de la Tour, are likely items given to the Sartons by George's Aunt Hélène, as recorded in George's diary on 15 December 1919.

12. George Sarton working at home in Cambridge, Massachusetts. Cats are the Sartons' constant companions in their married life.

13. George Sarton sketched by Lucy Stanton. Possibly a study for the pastel of George in ALS. George mentions the sketch in his agenda on 1 September 1922.

14. Dining room in Wondelgem, circa 1914, May Sarton squirming in the high-chair.

15. May Sarton sketched by Mabel Sarton, 1916.

16. May Sarton in a dress designed and executed by Mabel Sarton. May Sarton presented the photograph and the dress to Susan Sherman on 29 October 1993.

17. Céline Dangotte, 19 January 1910, sketched in pencil by Mabel Elwes.

18. The Flinke. The women's society of students and workers in Ghent where were found young Mabel Sarton's closest friends. Left, Marie Mees, Alice van Damme, Marie Praet, Esther Delahaye, Marthe Patyn; right standing, Victoire Ledewyn, Lucie Boulanger; right seated, Mélanie Loreyn, Augusta de Taye.

19. Miniature on ivory, *circa* 1907, by Mabel Elwes. Thin sheets of ivory, easily receiving oil paint, were fragile. This portrait is approximately 4 inches broad. Mabel initially trained as a miniaturist.

20. Ivory miniature, by Mabel Elwes.

21. Framed miniature portrait by Mabel Elwes.

22, abcd. Stained glass flowers by Mabel Sarton.

23. Sarton residence, 5 Channing Place, Cambridge, Massachusetts. Mabel comments: "In the dining room, shewing built in corner cupboard–the little chest on stand I had made & decorated when we lived in Washington 16 years ago."

24. Chest designed by Mabel Sarton for her residence in Washington, mentioned in 23, showing bird-and-flower motif.

25. Céline Dangotte, 19 January 1910, sketched by Mabel Elwes.

26. Belfry (left) and church of St Bavon, by Mabel Elwes. Mabel Elwes painted this water-color from her lodging in the Dangotte residence atop the Adolphe Dangotte store in the rue du Marais, or Meerstraat, Ghent.

27. Watercolor, by Mabel Elwes.

28. Bird-and-flower motif, sketched on cloth. Much of Mabel Sarton's embroidery was executed on patches of cloth, later to ornament clothes.

29. Bird-and-flower lace, by Mabel Sarton.

30 & 32. Silken embroidered birds, by Mabel Sarton.

32. Hand-embroidered blouse, avian pattern, by Mabel Sarton.

33. Machine-embroidered appliqué, designed by Mabel Sarton.

34. Flower-motif hand embroidery, designed by Mabel Sarton.

35. Hand embroidery designed by Mabel Sarton, showing stencilled pattern.

36. Peasant-style blouse, keyhole neck, designed by Mabel Sarton.

37. Appliqué collar, designed by Mabel Sarton.

38. Detail of partially-completed hand embroidery designed by Mabel Sarton.

39. Machine embroidery designed by Mabel Sarton. This pattern is evidentally guided by hand.

40. Hand-embroidered blouse designed by Mabel Sarton. The flower motif is highly abstract.

41. Flower design, painted on gauze by Mabel Sarton. The design was intended for a painted dress.

42. Machine-embroidered butterflies, designed by Mabel Sarton.

43. Hand-embroidered bird-and-flower motif peasant blouse, designed by Mabel Sarton.

44 & 45. Art-deco machine embroidery by Mabel Sarton.

46. Woolen embroidery, child's dress, designed by Mabel Sarton.

47. Peacocks sketched by Mabel Sarton, possibly for her exhibition embroidery of 1910.

48. Prototype of machine embroidery for an altarpiece designed by Mabel Elwes for L'Art Décoratif Céline Dangotte. The altarpiece, which received a gold medal at the 1925 International Exhibition of Decorative Arts in Paris, was formerly in the possession of the Abbaye d'Orval Belgium.

49. Cover of *L'Enclos*, by Raymond Limbosch. Mabel Sarton's design for the book of poems, published in 1910, shows a bird-and-flower motif. This copy presented by Céline and Raymond Limbosch to Mabel Elwes and George Sarton on 3 December 1910.

50. Title page of *L'Enclos*, by Raymond Limbosch. A wood-block print by Mabel Sarton.

51. Title page of *Le Bois d'oliviers* (1911), poems by Raymond Limbosch. Mabel Sarton's motif of vine and flowers is in the tradition of Art Nouveau. This book is dedicated to Mabel Elwes and George Sarton. The beading and framing indicate that the book is a continuation of *L'Enclos*.

52. Ex-libris, designed by Mabel Sarton for George Sarton, as recorded in George Sarton's diary, 31 August 1920. We may read the prominent nipple profile as an assertion of the artist's independence. By the 1970s, the History of Science Society preferred a sexless hieroglyph. Rosemary Regan and Richard H. Schallenberg, ed., *History of Science Society Directory of Members and Guide to Graduate Study* (New York, 1977), the cover illustration.

Sources and Endnotes

Correspondence cited between George and Mabel Sarton is found in the Berg Collection of English and American Literature, The New York Public Library, Astor, Lenox and Tilden Foundations, New York; when no indication is provided in the notes, this is where the material may be found. The Papers of May Sarton, Series XV Family Papers 1846-1993, Boxes 171-182, also in the Berg Collection, contain George Sarton's unpublished biography of Mabel Sarton, "Adventures of a Scholar's Wife," and other Sarton correspondence (abbreviated NYPL in the notes). George Sarton's diary (Diary) and agenda (Agenda) are located in Houghton Library of the Harvard College Libraries (HGS). Correspondence between George Sarton and his employers is in the archives of the Carnegie Institution of Washington (CIW). The Lucy May Stanton Papers are located in the Hargrett Library of the University of Georgia, Athens (ALS). Miscellaneous documents have been viewed in the home of the late May Sarton at York, Maine (YMS); most of them are now located in the May Sarton Papers at the New York Public Library. All illustrations come from the private archive of Susan Sherman, Riverdale, Bronx, New York.

1.James Surowiecki, "Bring on the Nanobubble," *New Yorker*, 15 March 2004, p. 68.

2.Margot Peters, *May Sarton: A Biography* (New York, 1997), pp. 168, 296.

3.Max Weber, "Science as a Vocation," in *Max Weber's 'Science as a Vocation,'* ed. and trans. Peter Lassman, Irving Velody, Herminio Martins (London, 1989), p. 8.

4.Suzanne Lilar, *Aspects of Love in Western Society,* trans. Jonathan Griffin (London, 1965), "Introduction" and p. 23.

5.Dominique de Bray [George Sarton], "Songerie sur la musique," *Revue bleue, 2* (1904), 380-4. George writes his pseudonym in his agenda on 15 March 1903 (HGS). The novel is Fromentin's *Dominique*, a favorite of the narrator in George's unpublished novel, *Petite Amie*, also titled *Lettres d'un enfant sur la sagesse et la vie*, a work dedicated to Goethe. Rough and fair copies inserted in Diary, September 1904 (HGS). On 23 and 24 February 1904 George notes that he has read Fromentin's work of art criticism *Maîtres d'autrefois: Belgique-Holland* for the third time (the 13th edition appeared in 1904).

6.These are some of the issues discussed by Phyllis Rose in her study, *Parallel Lives: Five Victorian Marriages* (New York, 1983). The marriages are those of the Carlyles, the Ruskins, the Mills, the Dickenses, and George Eliot and George Henry Lewes.

7.Edward Shorter, "Female Emancipation, Birth Control, and Fertility in European History," *American Historical Review, 78* (1973), 605-40; Ansley J. Coale and Roy Treadway, "A Summary of the Changing Distribution of Overall Fertility, Marital Fertility, and the Proportion Married in the Provinces of Europe," in *The Decline of Fertility in Europe: The Revised Proceedings of a Conference on the Princeton European Fertility Project*, ed. Ansley J. Coale and Susan Cotts Watkins (Princeton, 1986), pp. 31-181.

8.The best treatment of women in science around 1900 is José Manuel Sánchez Ron, *El Poder de la ciencia* (Seville/Madrid, 1992), pp. 171-92, which presents comparative statistics and data about the European and United States experience. The marriage of scientists and physicians is considered in Helena M. Pycior, Nancy G. Slack, and Pnina G. Abir-Am, eds, *Creative Couples in the Sciences* (New Brunswick, N.J., 1996). The book focuses on English-speaking people in the North Atlantic World during the late-nineteenth century and early twentieth century,

omitting figures like Emil Bose and Margrete Bose de Heiberg in Germany and Argentina, Etienne Vassy and Arlette Vassy-Tournaire in Morocco and France, and Jacob Clay and Tettje Clay-Jolles at Bandung and Bernardus Jan van der Plaats and Agathe van der Plaats-Keyzer at Batavia, the latter couples on Java. Generally, Marilyn Oglivie and Joy Harvey, ed., *The Biographical Dictionary of Women in Science* (New York, 2000), with 2500 entries.

9.May Sarton, *The Bridge of Years* (New York, 1946); *I Knew a Phoenix* (New York, 1959); *A World of Light* (New York, 1976). George and Mabel Sarton figure in May's fiction as well as in May's non-fiction. See Margot Peters, *May Sarton: A Biography* (New York, 1997).

10.Arnold Thackray and Robert K. Merton, "On Discipline Building: The Paradoxes of George Sarton," *Isis, 63* (1972), 473-95, p. 490. By this assessment, the authors mean that George was not a great prose stylist. The phrase is ironic, given that they emphasize George's positivistic, progressivist view of history of science, lending support, inaccurately I believe, to identifying George as a "Whig" historian. In a manifesto about history of science, George cites Thomas Babington Macaulay to the effect that judging the past requires freedom from the prejudices of the present: George Sarton, "The New Humanism," *Isis, 6* (1924), 9-34, on p. 30.

11.Among the brightest introductions are Noel M. Swerdlow, "Montucla's Legacy: The History of the Exact Sciences," *Journal of the History of Ideas, 54* (1993), 299-328; José María López Piñero, "Las Etapas iniciales de la historiografía de la ciencia: Invitación a recuperar su internacionalidad y su integración," *Arbor, 142*, nos 448/559/560 (1992), 21-67. Earlier appraisals by senior scholars include Helge Kragh, *An Introduction to the Historiography of Science* (Cambridge, 1987); Arnold Thackray, "History of Science," in *A Guide to the Culture of Science, Technology, and Medicine*, ed. Paul T. Durbin (New York, 1980), pp. 3-69; I. Bernard Cohen, "History of Science as an Academic Discipline," in *Scientific Change*, ed. A. C. Crombie (London, 1961), pp. 769-80; and José Babini's excellent study, *Ciencia, historia e historia de la ciencia* (Buenos Aires, 1967).

12.While working in Washington, Mabel Sarton energetically intervened on behalf of George in the spring of 1918, when George was desperately seeking a renewal of his contract at Harvard University or another suitable position. In particular, she lobbied with the Belgian Embassy to hire him. Mabel Sarton to George Sarton, 9 March 1918, referring to E. de Cartier, former Belgian ambassador to China: "Some instinct keeps telling me to warn you against landing yourself at Harvard because I feel & believe that De Cartier will want you. He certainly gave Dr Baekeland the impression that he would like to use your abilities & your sympathies for & knowledge of the best American ideas." Mabel mentions dining with the T. Wayland Vaughans. Vaughan, a product of Tulane and Harvard universities who studied music in Europe, is a federal sedimentologist who eventually directed the Scripps Oceanological Institute—a boring speaker, according to George—whose daughter was a friend of the Sartons' daughter May. Mabel also writes that she has arranged to speak with De Cartier over lunch on 14 March, a meeting to which George, then at Harvard, is also invited. Mabel's support figures explicitly in George's eventual appointment with the Carnegie Institution of Washington. Historian of science William Sedgwick, recommending George to the Carnegie Institution's Robert Simpson Woodward, emphasizes that George "has also an English wife who heartily seconds his endeavours." Sedgwick, who serves on the advisory council of the Shady Hill School where May is a pupil, knows first-hand about the Sarton family. CIW, William Sedgwick to Robert S. Woodward, 24 April 1918. Margot Peters, *May Sarton: A Biography* (New York, 1997), p. 404.

13.NYPL, Mabel Elwes to Céline Dangotte, 6 April 1899.

14.John M. Robertson, *Modern Humanists: Sociological Studies of Carlyle, Mill, Emerson, Arnold, Ruskin, and Spencer* (1891; Port Washington, N.Y., 1968).

15.NYPL, Mabel Elwes to Eleanor Elwes, March 1907.

16."Adventures of a Scholar's Wife." In 1914 George notes a biography of Conway, "the general thinker and noble pilgrim." George Sarton, "John M. Robertson, *The Life Pilgrimage of Moncure Daniel Conway*," *Isis, 2* (1919), 450

(the issue was composed before the First World War). Well before then George looked into things Oriental. In his agenda on 4 May 1904, he notes Charles Holme's article, "Japanese Flower Painting," *The Studio*, 15 April 1904. George is likely the "G.S." from the University of Ghent who authored a poem, "O'Kama d'Osaka," on pp. 378-9 of the *Almanach de l'Université de Gand* for 1904, published by the Société générale (fédération) des Etudiants libéraux. It is a Japanese legend about a woman who suffers the death of her lover.

17.In helping to choose a name, Mabel may have thought back to a similar-sounding journal for which she was artistic consultant in 1908: *Iris: Vrij, algemeen nederlandsch maandschrif*; prospectus in NYPL. George elaborates various precedents in "Why *Isis*?" *Isis, 44* (1953), 232-42. The most persuasive is a book by James Teackle Dennis, *The Burden of Isis, Being the Laments of Isis and Nepohythys* (London, 1910), which George bought in Ipswich, England, during a happy visit in 1910 with Mabel. Diary, 25 February 1953, for Dennis. George does not appeal to theosophy, to which he was introduced as a student. Jean Delville, an innovative artist whom George admired, advises in a letter of 20 September 1906, "You are ready for the study of *theosophy*" (HGS). The formulator of theosophy, Helena Petrovna Blavatsky, set down her early doctrines in the book, *Isis Unveiled: A Master-Key to the Mysteries of Ancient and Modern Science and Theology* (London, 1877), among many editions.

18."Scholar's Wife."

19.Riverview, Bronx, New York, private archive of Susan Sherman. Ex-libris, designed by Mabel Sarton for George Sarton, as recorded in George Sarton's diary, 31 August 1920. We may read the prominent nipple profile as an assertion of the artist's independence. By the 1970s, the History of Science Society preferred a sexless hieroglyph. Rosemary Regan and Richard H. Schallenberg, ed., *History of Science Society Directory of Members and Guide to Graduate Study* (New York, 1977), the cover illustration.

20.Mabel attended the Institut Charles de Kerchove, in Ghent. Taking its name from the middle 19th-century liberal mayor of Ghent, Charles de Kerchove de Denterghem, it was a private *école primaire supérieure*, or finishing school, seeking to provide girls with a broad and general education. Mabel boarded there as an *élève libre*, that is, a student who does not follow the prescribed curriculum for a diploma. The curriculum included a full range of humanities and sciences, along with domestic arts and fine arts. The school engaged a number of university professors as lecturers, and among Mabel's teachers were Frédéric Swarts, a pioneer in the study of fluorine compounds who would later teach chemistry to George Sarton at the University of Ghent; Ernest Discailles, who taught French and Romance literatures to George; and historian Paul Fredericq. Mabel remembered her teacher of French poetry, Adèle Dupuis, and also Joseph de Smet, the historian of art who introduced Lafcadio Hearn to French readers. The Institut de Kerchove around 1900 is recorded in documents contained in Fonds Vliegende Bladen IE28 Ecole in the University Library of Ghent. The documents are a donation of Paul Fredericq. I am grateful to Head Librarian Sylvia van Peteghem for access to this material. When Mabel's father died in 1906, she joined the household of her friend Céline Dangotte, whose parents owned one of the premier retail establishments in Ghent for domestic wares, "Adolphe Dangotte," which under Céline Limbosch-Dangotte expanded into an ambitious undertaking in interior design, "L'Art décoratif." HGS, Céline's father Léopold Dangotte to George Sarton, 24 June 1910: "I adore Mabel and regard her as a second daughter.

21.George Sarton, "Knowledge and Charity," *Isis, 5* (1923), 5-19.

22.HGS, Alfred Hoernlé to George Sarton, 12 June 1923.

23.Emile Masson, "George Sarton et le 'Nouvel humanisme,'" *Les Humbles*, no. 10 (February 1919), 7-19, on p. 19. Masson refers to the "Madonna from the Inn's Hall," 1433, presently in the National Gallery, Melbourne, Australia. The periodical is a "revue de Jeunes." HGS, Emile Masson to George Sarton, 10 January 1919.

24.George Sarton, "Why Isis?" *Isis, 44* (1953), 232-42, on p. 236; George Sarton, "Matériaux pour l'histoire de l'art asiatique (première série)," *Gazette des beaux-arts, 8* (1923), 1-17; George Sarton, "Art as an Approach to Asia,"

Yale Review, 15 (1926), 540-52.

25.George talked with Daniel F. Comstock about ways to investigate psychical phenomena. Diary, 6 July 1920. Comstock was a physicist at MIT until 1917, when he devoted all his effort to an independent laboratory that in 1922 developed "Technicolor." Stanley Goldberg, *Understanding Relativity: Origin and Impact of a Scientific Revolution* (Boston, 1984), p. 250. William McDougall arrived at Harvard from England in the fall of 1920 to occupy the chair held by William James and then Hugo Münsterberg. He was a firm advocate of eugenics and of the primacy of inherited characteristics, and he championed the instinctual pursuit of indistinct goals. McDougall disliked behaviorism and materialism, and like William James, he was attracted to spiritism as a topic worthy of serious, experimental inquiry. (Mabel, on 9 August 1921, writes to George about a psychic at Intervale who produced a message from William James, Jr, to William McDougall.) From his arrival in America, McDougall remained aloof from most of his colleagues, who conspired against him, and in 1927 he moved to Duke University, where as chair of psychology he actively promoted the research of Joseph Banks Rhine and Louisa Weckesser Rhine in parapsychology. The Sartons and the McDougalls found much in common as cultured Europeans who were marginalized at Harvard, although George notes to Mabel on 15 August 1921, "I hardly know them." Seymour H. Mauskopf and Michael R. McVaugh, *The Elusive Science: Origins of Experimental Psychical Research* (Baltimore, 1980), pp. 59-70 on McDougall.

26.NYPL. The published version: George Sarton, "An Institute for the History of Science and Civilization," *Science, 45* (1917), 284-6; *46* (1917), 399-402 for a second installment. At this time Mabel wrote letters for George's institutional schemes. HGS, James Harvey Robinson to George Sarton, 23 November 1916, thanking George for the letter Mabel wrote on his behalf for "coordinating the contributions that are being made to the history of science"; George Lincoln Burr to George Sarton, 8 September 1917, apologizing for not answering his letter "from Mme Sarton writing on your behalf." Burr sees no way to realize George's plan.

27.George Sarton, "The Message of Leonardo," *Scribner's Magazine, 65* (1919), 531-40. The editor at *Scribner's*, Robert Bridges, paid George $200 for the article. HGS, Robert Bridges to George Sarton, 15 February 1919.

28.George gave power of attorney to his biologist friend Paul Pelseneer, who opened George's box in the bank vault in 1919. HGS, Paul Pelseneer to George Sarton, 8 May 1919.

29.NYPL, Eleanor Elwes to Mabel Elwes, ca 1901.

30.HGS, David Eugene Smith to George Sarton, 21 December 1912.

31.Diary, 4 April 1921. George and Mabel draw up a list of books for their Ideal Library, not being able to afford to buy them. Included are Sir Henry Maine's *Ancient Law*, Louis Hémon's French-Canadian classic *Marie Chapdelaine*, and works by Gustaf af Geijerstram, Giovanni Papini, Selma Lagerlöf, Lytton Strachey, Serge Aksakoff, Ferenc Molnar, Edmund Gosse, Evangeline Wilbour Blashfield, Godfrey Rathbone Benson (Lord Charnwood), Herbert G. Ponting, Jérome and Jean Tharaud, Felix Timmermans, and George Borrow.

32.Paul van Oye, *George Sarton: De Mens en Zijn Wert uit Brieven an Vrienden en Kennissen* (Brussels, 1965) [*Verhandelingen van de Koninklijke Vlaamse Academie voor Wetenschappen, Letteren en Schone Kunsten van België, Klasse der Wetenschappen, 27*, no. 82], p. 49.

33.CIW, George Sarton to Robert S. Woodward, 25 August 1918, for the "loathsome counterfeit" of admiration for heroic figures "by *snobbish* & crazy women," but men are also objects of George's derision: "No amount of knowledge will give generosity and intelligence to a man who has none. On the contrary, it will set his pettiness in greater contrast, in the same way that wealth makes mediocrity more conspicuous." George Sarton, "Secret History," *Scribner's Magazine, 67* (1919), 187-92, on p. 189. George also declaims against male snobs, "the vanity and the snobbism of so many men, who are aroused by the incessant desire to be spoken about." George Sarton,

"L'Organisation scientifique du journalism," *La Vie internationale, 5* (1913), 391-428, on p. 412. And later: "But even this wretch of a snob is not as depersonalized as he seems....Once his snobbery has been pierced through, he is as unable to hide his real self as any professional actor." George Sarton, "Transparency: A Way of Looking at People," *Scribner's Magazine, 77* (1925), 308-313, on p. 311.

34.HGS, Henri Lafontaine to George Sarton, 26 July 1915, for Lafontaine's comments on Alfred Hermann Fried's views, transmitted by George, about the Central Powers as victims of militarism; Lafontaine to Sarton, 13 August 1915, for skepticism about a Paneuropean political structure.

35.Diary, 16 November 1915.

36.*Isis, 1* (1913), 320: under "Sciences des primitifs" in the analytical bibliography, Sigmund Freud, "Der Wilde und der Neurotiker," *Imago*, nos 1, 3, and 4 (1912); George Sarton, "Sigmund Freud, *Leonardo da Vinci: A Psycho-Sexual Study of an Infantile Reminiscence*," *Isis, 3* (1920), 104.

37.Peters, *May Sarton.*

38.NYPL, Mabel Sarton's health records. One form of sex-hormone treatment at the time consisted of powdered corpus luteum, derived from domestic animals, taken orally with meals. It was indicated for neurasthenia as well as for menstrual bleeding. B. A. Thomas and R. H. Ivy, *Applied Immunology* (Philadelphia, 1915), p. 316. In the first decade of the twentieth century, dried ovarian substance was commercially available and used to treat nervous and emotional disorders, including delusional insanity, associated with conditions diagnosed as "ovarian" in origin. H. Batty Shaw, *Organotherapy, or Treatment by Means of Preparations of Various Organs* (Chicago, 1905), pp. 203-4.

39.Auguste Forel, *Die sexuelle Frage: Eine naturwissenschaftliche, psychologische, hygienische und soziologische Studie für Gebildete* (Munich, 1905). Mabel undoubtedly read a French edition, for example, *La Question sexuelle: Exposée aux adultes cultivés* (Paris, 1906). Forel's socialist sympathies would have attracted George and Mabel. Notably, Forel persuaded the Belgian socialist Emile Vandervelde to become a teetotaler. Emile Vandervelde, *Souvenirs d'un militant socialiste* (Paris, 1939), p. 136. Albert Einstein's path intersects that of the Sartons at a number of points (Mabel was in Zurich when Einstein was a professor there), and this is one of them; Albert Einstein's first wife Mileva Marić read and annotated *Die sexuelle Frage*, notably a passage in the section on Utopian ideas about ideal marriage in the future: Husband and wife "will have learnt to find the truest satisfaction in the accomplishment of their different duties, and in their work in common for the benefit of society." Michele Zackheim, *Einstein's Daughter: The Search for Lieserl* (New York, 1999), p. 270.

40.Osbert Burdett, *The Two Carlyles* (Boston, 1931), pp. 292-3.

41.Charles Richard Sanders, ed., *The Collected Letters of Thomas and Jane Welsh Carlyle*, vol. 1 (Durham, 1970), p. xxiv for the number. The untrustworthy Frank Harris, for example, reports Jane Carlyle's virginity after 25 years of marriage. John Stewart Collis, *The Carlyles* (New York, 1971), pp. 181-2 for Harris; also Rosemary Ashton, *Thomas and Jane Carlyle: Portrait of a Marriage* (London, 2003), p. 11. In the absence of documentary evidence, the union of sociologist Max Weber and Marianne Weber—both prolific writers—is also suspected to have been unconsummated. Donald G. Macrae, *Max Weber* (New York, 1974), p. 24; cf Patricia Madoo Lengermann and Jill Niebrugge-Brantley, *The Women Founders: Sociology and Social Theory, 1830-1930* (Boston, 1998), p. 214 for the contrary assertion.

42.Ashton, *Thomas and Jane Carlyle*, p. 76. Ashton adds: "All we can say is that no positive proof of consummation survives, but then, apart from pregnancies and children, of what could such proof consist?"

43.Noel Annan, *Our Age: English Intellectuals between the World Wars, A Group Portrait* (New York, 1990), p. 86. With the Sartons, George tracked Mabel's period, but it was Mabel who made the connection between menstruation

and her emotional state.

44.Van Oye, *George Sarton*, pp. 110-11.

45.Virginia Woolf, *Carlyle's House and Other Sketches*, ed. David Bradshaw (London, 2003), pp. 4, 49.

46.In 1925, when she lived and worked in Belgium, Mabel designed an altarpiece for the exhibition held that year in Paris devoted to the decorative arts; she received a gold medal for it. Mabel Sarton to George Sarton, 15 February 1925; May Sarton, *A World of Light: Portraits and Celebrations* (New York, 1976), p. 60. NYPL, Madeleine van Thorenburg to Mabel Sarton, 18 December 1925, congratulating Mabel for the gold medal.

47.F[erdinand] K[hnopff], "Studio Talk," *The Studio, 51* (1910-11), 324-8. Mabel writes to her friend Marthe Patyn on 28 November 1910 (NYPL) that her embroideries will be featured in an upcoming number of *The Studio*: "I had brought them to London to try to obtain orders from one or another of the large companies. Then I fell sick and despaired of not having accomplished anything. And then the idea occurred to send them to the publisher of *The Studio* with a letter simply describing them and saying that I thought that he would like to see them. He was more or less prepared, because Fernand K[h]nopff should have written to him, and an article on the cottage was projected. He asked me to keep them for several days to photograph them!"

48.HGS, Leopold Dangotte to George Sarton, 24 June 1910.

49.George Sarton to Mabel Sarton, 30 December 1914.

50.In his agenda for 15 January 1904, George notes the "utility of *états tampons* for world peace."

51.The *Independent* rejected the proposal on 8 October 1914; the Sartons received the rejection in Cambridge, Massachusetts, on 24 February 1919. YMS.

52.Hendrik Christian Andersen, "A World Center for Peace," *Independent, 84* (October 1915), 152.

53.George Sarton, "La Conscience mondiale," *Isis, 1* (1913), 488-9. Hendrik Christian Andersen, *Creation of a World Centre of Communication* (Paris, 1913), historical part by Gabriel Leroux, architectural part by Ernest M. Hébrard and Jean Hébrard. HGS, Hendrik C. Andersen to George Sarton, 11 September 1913, sending along the introduction to *Creation* for review in *Isis*. On the internationalist city-planners: Giuliano Gresleri and Dario Matteoni, *La città mondiale, Andersen, Hébrard, Otlet, Le Corbusier* (Venice, 1982); Annick Brauman, "The Parc Léopold: The Home of Scientific Imagination," in *The History of Garden Design*, ed. Monique Mosser and Georges Teyssot (London, 1991), pp. 442-4.

54.Sarton, "The Future of Belgium," pp. 263, 270, 271.

55.HGS, Hendrik C. Andersen to George Sarton, 10 July 1915.

56.George Sarton, "Emile Waxweiler (1867-1916)," *Nation, 104* (1917), 168-9.

57.ALS, Mabel Sarton to Lucy Stanton, 15 December 1928. On 6 April 1930 Mabel calls herself a "sister-friend" in a letter to Stanton; on 20 February 1931 she signs herself "always your loving sister."

58.May Sarton recalls: "Lucy Stanton came into our lives like an angel at a time when perhaps we were all three rather lonely....My father, always sensitive to the charm of women of character, basked in her warmth." May Sarton, "Lucy Stanton, a glimpse of her seen by a little girl," June 1966, ALS. In the early 1920s Lucy Stanton was established in Boston as a teacher of art history and art at Dana Hall in Wellesley, Miss Choate's School, and Milton

Academy. George writes in his diary on 15 May 1921: "She is so kind and so sound, and her quiet energy is amazing. I like her." George records tea and dinner with Stanton on 15 September 1921, and he notes her address and telephone number in his agenda—a rare entry. Mabel leaves town on 18 September 1921. In his agenda George indicates coitus on 21, 23, and 28 September 1921. In his diary on 24 September 1921: Lucy Stanton, "who is really a dear friend" introduces him to Percival Chubb, leader of the St Louis Ethical [Culture] Society, "himself an old friend of Havelock Ellis." Mabel leaves for Washington on 2 October at 7:30 p.m. George records coitus. On 30 October 1921 his agenda records dining with Lucy Stanton and walking her back to Boston. Betty Alice Fowler, "An Art in Living," in Betty Alice Fowler and Andrew Ladis, *The Art of Lucy May Stanton* (Athens, Georgia, 2002), pp. 16-28, on p. 22.

59."On two occasions a foreign teacher was invited to teach the history of science in H.U. in competition with me—and I was not warned or consulted in either case, except (in the second case) *pro forma, in extremis*." The foreigners were Georgio de Santillana and Willy Hartner. Diary, 5 November 1948.

60.Diary, 15 January 1954 and 7 February 1954. From the former: "May has published in the latest *New Yorker* a delightful essay derived from my table-talk. It is fairly correct and yet I do not recognize myself, because the period described is too distant in years and vicissitudes. It represents a kind of prehistoric me."

61.George Sarton, "La Nouvelle Physique," *Isis, 2* (1914), 193-8, focusing on the Solvay Conferences in quantum physics.

62.They both received an honorary doctorate from Harvard University on 20 June 1935, along with Thomas Mann and George's employer John Campbell Merriam of the Carnegie Institution of Washington—Sarton and Merriam an LLD, Einstein a DSc, and Mann a DLitt. "Einstein and Mann Get Harvard Honor,"*New York Times*, 21 June 1935, p. 8. George and Albert Einstein were also early members of the Gesellschaft für positivistische Philosophie, led in 1913 by Joseph Petzoldt. *Zeitschrift für positivistische Philosophie, 1* (1913), membership list tipped into the volume in the Graduate Library, University of Michigan. George and Albert Einstein both contributed to *Romain Rolland, Sexagenario ex Innumerabilibus Amicis Paucissimi Grates Agunt*, eds Maxim Gorki, Georges Duhamel, and Stefan Zweig (Zurich, 1926). At the end of his life, George saluted Einstein as a philosopher. George Sarton, "Henri Berr (1863-1954): La Synthèse de l'histoire et l'histoire de la science," *Centaurus, 4* (1954), 185-97, on p. 192. George writes in his diary on 2 August 1955: "Einstein was a truly great man, not simply because of his immense discoveries but because of the perfection of his social sense."

63.George Sarton to Mabel Sarton, Pentecost 1908.

64.Horace Meyer Kallen Papers, Jacob Rader Marcus Center, American Jewish Archives, Cincinnati, George Sarton to Horace Meyer Kallen, 5 October 1930.

65.HGS, George Sarton to John Charles Merriam, 1 April 1922.

66.Diary, 3 June 1925.

67.Ashton, *Thomas and Jane Carlyle*, pp. 85-8, 92, 173-4.

68.Mabel Sarton to George Sarton, 31 July 1948, where Mabel reports from Belgium on the discovery of a lump in her breast.

69.YIVO Institute for Jewish Research, New York, Papers of Horace Meyer Kallen, 562/1004, George Sarton to Horace Kallen, 19 November 1950.

70.HGS, Emile Masson to George Sarton, 17 July 1913, referring to George's letter of May. Charles Eliot Norton,

Carlyle intime: Jane Welsh Carlyle, Reminiscences, trans. Elsie and Emile Masson (Paris, 1913). From the beginning of his correspondence with George, Emile Masson warned George about Carlyle's single-minded devotion to his work, to the detriment of his humanity. Emile Masson to George Sarton, 11 July 1905 (the correspondent is mistakenly identified in HGS as Père Yves Ernest Masson)

71.George Sarton, "Auguste Comte, Historian of Science, with a Short Digression on Clotilde de Vaux and Harriet Taylor," *Osiris, 10* (1952), 328-57.

72."Lessons from History," *Newsweek*, 28 April 1947; the *Newsweek* and *Vogue* extracts in YMS. The Dover edition of *The Study of the History of Mathematics* and *The Study of the History of Science* appeared in 1957.

73.In 1915, Mabel was invited to design for Ambrose (later Sir Ambrose) Heal in England. Mabel Sarton to George Sarton, received 6 August 1915. Nikolaus Pevsner, *Pioneers of Modern Design, from William Morris to Walter Gropius* (London, 1974), pp. 154-5 on Heal. In the 1920s, Mabel was an art instructor at the Winsor and Milton schools in Boston.