Standing My Ground

Émilie de Breteuil du Châtalet
April 28th, 1746

Dear Diary,

This morning as I awoke, the fresh air of Lorraine filled my lungs and the music of last night’s salon conversations still rang in my ears. Each time I am exposed to the magnificent prowess of the great philosophers of France, I swell with an inextinguishable pride for my country and its most astute thinkers. I was utterly enchanted by the thought provoking conversations of my peers, but even more awed by my darling Voltaire. Oh how his words envelop me! I continue to be filled with rage when I think that his brilliance has been confined to the simplicity of Lorraine, simply because he questioned the court of Louis XV. What a backwards time we live in, where questioning the King is the ultimate sin, and I am more glad then even that we have both been able to seek refuge here away from the court. And, I will submit that I am glad to have him by my side more permanently, rather than the necessary secretiveness we had to employ while living in Paris. Here we can love one another openly. Lucky am I that even as a young girl of 19 I knew that the best way to harness my own power, in a world wishing to render me powerless, was by choosing a husband who would seldom be home allowing me to live my life independently. When I think of those poor women in Paris sitting in their stuffy rooms, confined only to leadership of their husbands, I feel more grateful then ever that my dear papa saved me by giving me the gift of education. He always said laughingly that by flaunting my brilliance so, I might scare away potential suitors. Being exposed to science, literature and music has expanded my world in a way that few women can boast of, and this knowledge has instilled in me a profound sense of control and power. Yet my luck was not limited to papa, for fortunate was I that my beloved V recognized my talent from the start. It was he that cultivated this love of learning, and he who persuaded me to peruse my interest in Newtonian Theories. Were it not for his enduring support I might never had taken that first lesson in advanced mathematics from my sweet Pierre-Louis Moreau de Maupertuis, and might never have embarked on the glorious path of discovery. What inspires me daily is how I loathe and love this mysterious world of ours; so many unanswered questions with so many unwilling to search for their solution. How can one ever expect to change without being willing to administer a search? How can we be satisfied merely writing off the wondrous art that is our daily life to heavens? Our curiosity is a key to our success, and that is what I wish...
to instill in my children. Doing so is difficult though, because when he is here the militaristic perspective of my husband the Marquis seems to take president over my more romantic and scholastic lessons to our children. Thankfully though, I can easily find solace in both my studies and my haven in Lorraine.

My time spent here with V has been all consuming, marked by unknown amounts of talent and intellect flooding freely through the halls of the estate. These days, as I grow closer to V, and move more rapidly towards my future in mathematics, it seems as though there is little holing the Marquis and I together besides our two beloved children. I refuse to set aside my hunger for cultural intellect to follow him on his militaristic pursuits. I must stand my own ground unlike mama and her mother did in the past, in order to continue enriching my studies. My hope is that as I continue my efforts to translate Newton’s *Principa Mathematica* into French, I will no longer feel guilt as I leave behind my previous, more traditional lifestyle and continue to grow creatively alongside those who inspire me to do so.

Until next time,

Émilie
My Excitement and Apology

October 12th, 1738

Dearest François,

It is with great excitement that I tell you, that today I received a letter from the Academy of Sciences in Paris. They have published my dissertation on the properties of fire! When I received the news I was recovering in my room from a long afternoon of pétanque with the children, and nearly fell out of my chair with excitement. Most thrilling though, was that I hadn’t in fact won the competition for dissertation but despite that, the Academy chose to publish it anyway, at their own expense! They commended my work in proving that light and heat were singularly constructed entities. They also applauded me for being honest that these results might change at any time because I have only proven that they are “congenitally true”. My hope is that I will be able to provide even more concrete evidence of this hypothesis in the future, and with any luck it will be done by your side. At the time it seemed so silly for me to join the competition put on by the academy, but look at me now! A female mathematician and scientist the talk of Paris! Despite my success though, I have been shrouded by remorse. I feel terrible about the way I treated our partnership and it is important to me that you know I can now understand why you were so upset, and hopefully though this you can understand why I was as well. Performing the secret experiments and submitting my own dissertation was never intended to be a personal assault. This time spent alone has made me think deeply about our time together. At times I worry that we have become too involved, that our love and work are too correlated. I know that the recent events have caused a rift, but one, which I hope, is repairable. What should happen if another one occurs which is not? And in terms of my study of mathematics and science, I wonder if I have I grown too dependent on our love. Has my reliance on you become a co-dependence? As a woman I must work twice as hard to asset my intellectual ability, and I do not wish to devalue that by working on all of my submissions as a part of a pair. I have worked much to hard to throw away my credibility on a simple by-line. The work we did was extremely meaningful, but when I discovered a contradicting hypothesis, I couldn’t simply let it pass by. I didn’t tell you not because I have any doubts about your ingenuity but rather because I wanted a chance to find my own fame and to assert my independence. I need you to know though; that I never would have abandoned our work unless I was absolutely sure of my findings, and I hope this success will serve as proof of that and a sincere apology from me. Although I am saddened that you were not selected either, I am assuaged knowing how closely you and I worked on the initial dissertation, which in many ways inspired my next one, making this a momentous occasion for you as well. I giggle thinking back at the
monumental transformation we made on the main hall of the estate, turning each ancient wooden armoire into a chemical testing sight, and imagining stacks of work papers strewn messily beneath the archaic chandeliers. Oh sweet V, how I detest our disagreements, and want us to be joined once more by our love and desire to change the face of modern science. Return to me in Lorraine mon cherie, so we can once again be arm in arm.

All my love,

Émilie

This is a painting of me which they plan to put on the cover of my dissertation!
A Final Farewell

1749

Dearest Jean,

It is with sadness that I write to you a draft of the obituary I would like to send to our acquaintances throughout the country, in order to commemorate our sweet Émilie. You are my closest friend, and the only one I could trust with such a personal request. I worry that perhaps it is too personal, but it is so very difficult for me to contain my emotion when speaking of her and our past together, particularly now as I come to terms with the reality that my greatest love is no longer.

Let me know your thoughts.

Yours faithful friend always,
François Voltaire

My dearest friends and esteemed colleagues,

It is with great sadness that I announce to you the death of our dear, Gabrielle Émilie Le Tonneler de Breteuil, Marquise du Châtelet-Laumont.

Although that was her full name, to most of us she was simply, Émilie. In classical French, Émilie means rival, and that she was. She was a rival to society, a rival to traditional science and a rival to traditional values. Her prowess was a result of her hard work and determination and extended into her vibrant social and familial life. She was taken from us much to soon, yet even then she died giving life to the future, but this time in the from of her newborn daughter.

Her confidence was boundless. I remember once speaking with Prince Fredrick the Great of Prussia of his first encounter with the beautiful Madame du Châtelet. He replied vehemently that he had never met anyone more straightforward or bewitching in his life, and never anyone with as quick of a wit. When the prince had questioned one of her theories, and she quickly responded by quipping, "Judge me for my own merits, or lack of them, but do not look upon me as a mere appendage to this great general or that great scholar, this star that shines at the court of France or that famed author. I am in my own right a whole person, responsible to myself alone for all that I am, all that I say, all that I do. It may be that there are metaphysicians and philosophers whose learning is greater than mine, although I have not met them. Yet, they are but frail humans, too, and have their faults; so, when I add the sum total of my graces, I confess I am inferior to no one."

That overwhelming confidence was what I admired most about her. She was never afraid to tell the world what she thought or to champion the theories she believed in. She the most brilliant woman I have ever had the pleasure of working with. As many of you know, we spent years living together in the beautiful old home of her family in Cirey, Lorraine. We were surrounded by creativity constantly, through both our own work and the guests we hosted there. Her first incredible achievement in the study of science and mathematics happened there. She wrote her Dissertation Sur la Nature et La Propagation du Feu, in which she masterfully and innovatively concluded that the color of light in fire has different amounts of heat. Although I was hurt that she had abandoned the joint dissertation we had been working on, deep down I knew that the work she was doing independently was too important to her to let go. Her next pursuit in the scientific world manifested itself as our co-authored book on Newtonian theory, Elements of Newton’s Philosophy. Our goal was to bring Newton’s enlightened philosophies to France. Initially, I was worried that the book wouldn’t be persuasive enough to shake the traditional Cartesian views of France, but my sweet Émilie insisted, and as always I quickly submitted, beguiled by both her beauty and confidence. After receiving seemingly unending amounts of criticism for our book’s progressive theories, Émilie was inspired to begin drafting another book. Foundations of Physics focused on combining the contradictory work of Newtonian, Cartesian, and Leibnizian philosophy into one all encompassing theory. Despite all her amazing work though, what I believe will be Madame Châtelet’s most lasting impact, is her theory on energy. She found that energy was proportional to mass times velocity^2, disproving Newton’s notion that it was simply mass times velocity. I can still remember how happy she was that hot summer day at the estate. She came running towards me excitedly telling me she had been successful in making the discovery by dropping heavy lead balls into clay. That day she
discovered that, “the balls that hit the clay with twice the velocity penetrated four times as deep into the clay; those with three times the velocity reached a depth nine times greater”. Her final project was her translation of Newton’s work on *Principia Mathematica*, which she began shortly before become pregnant with her third and last child. She was 42, and had been too exposed to the pessimism of the scientific world at the time to believe that she could live through the pregnancy at such an old age. She began to become consumed by her work, desperate to finish before her inevitable demise. In those last months I barely saw her for she felt most content working on the translation—sometimes for even 10 to 18 hours at a time. Our few conversations together began becoming more meaningful, for she knew that her words could at any time be her last. On the night she gave birth to her daughter, she was surrounded by all of those who were most important to her. The Marquis, her 2 other children, and myself all sat near her, holding her hand and saying our goodbyes. In those last few moments as hot tears ran down my face, I was suddenly confronted with the reality that this was not really goodbye. Although it might have been the end of our great love, it was only the beginning of her rise to the scientific notoriety she had so craved during her lifetime.

Please join us tomorrow at 9pm in front of the Chapel of Cirey for a memorial service and candle light vigil honor in of the great Gabrielle Émilie Le Tonnelier de Breteuil, Marquise du Châtelet-Laumont

Sincerely yours,
François Voltaire

P.S. Jean— do you think I should include these in my letter? Perhaps her friends might like to see them as well

Here is a drawing of Émilie’s work in exploring the physical theories of Leibniz in her book, Institutions Physiques
Here is a drawing a dear friend made of the château in Cirey where we spent so much time together.