

## Émilie de Breteuil du Châtelet

The life of Gabriele Émilie Le Tonnelier de Breteuil, the Marquise du Châtelet (December 17, 1706 – September 10, 1749) would make an excellent plot for a Gothic novel. Born to the nobility that expected its women to be beautiful, witty and clever, as a child de Breteuil was an ugly duckling. Her cousins described her as “a colossus in all her limbs – a marvel of strength and a prodigy of clumsiness.” Her father was convinced that he had a spinster on his hands. He is quoted in Samuel Edwards’, *The Divine Mistress* (1970), saying, “My youngest is an odd creature destined to become the homeliest of women. Were it not for the low opinion I hold of several bishops, I would prepare her for a religious life and let her live in a convent. She stands as tall as a girl twice her years, she has prodigious strength, like that of a woodcutter and is clumsy beyond belief. Her feet are huge, but one forgets them the moment one notices her enormous hands. Her skin, alas, is as rough as a nutmeg grater, and altogether she is as ugly as a Gascon peasant recruit in the royal footguards.”



Bright and studious, persuaded her father, Baron de Breteuil, that she was intelligent enough to deserve special educational attention. As a consequence, she was allowed more of an education than most females of her time and station. A genius, who needed only two hours of sleep a night and took the usual lessons in music, dancing, etiquette, fencing, riding and gymnastics, she was tutored in languages and studied mathematics and the sciences. By the time she was twelve she could speak fluent English, Italian, German, and Spanish, and had translated Greek and Latin texts by Aristotle and Virgil. She was deeply interested in metaphysics and took delight in entering into discussions with her family’s distinguished guests, including Bernard le Bovier, Sieur de Fontenelle, M. de Mézières, and François

Marie Arouet; otherwise known as Voltaire. By the age of sixteen, the ugly duckling became a swan, a tall (five-foot nine-inch) attractive, out-spoken young woman. Her father, the Principal Secretary and Introducer of Ambassadors to Louis XIV, presented her to the court at Versailles. She was delighted with the court, not because of the gossip or other meaningless diversions that amused other women, but rather because of the excitement of the intellectual pursuits open to her.

When de Breteuil was nineteen, her father scouted around for a suitable husband for his beautiful and talented daughter. He found just the man in thirty-four year-old Florent Claude Châtelet, a military officer who could trace his ancestors to Charlemagne. His name was appropriate to his profession as the word “châtelet” refers to a building, sometimes of great size, designed for the defense of a castle or chateau. Although they had little in common – the new marquise enjoyed Paris society, while her husband preferred the country and hunting – the couple settled into an estate at Cirey-sur-Blaise. Her husband was frequently away making war or performing other military duties, which suited Émilie admirably. After giving birth to three children, she concluded she had fulfilled her marital responsibilities and the two agreed to live separately.

In the upper class it was common practice for both husbands and wives to take lovers. The only restriction was that while men could have as many mistresses as they could afford, women were expected to take only one lover at a time. The Marquise held forth at a salon in a townhouse in Paris where she was surrounded by intellectuals and lovers, including the Comte de Guébriant, the Duc de Richelieu, Pierre Louis de Maupertuis and Voltaire. It was Richelieu who encouraged her to take lessons in higher mathematics when she expressed an interest in Isaac Newton’s theories. Maupertuis, a member of the Academy of Sciences, taught her geometry. Undaunted by the fact that Maupertuis’s discussions with his scientist, philosopher, and mathematician friends were held at Gradot’s, a

coffeehouse which banned women, she donned men's clothing and became a regular. Rather than lose their male clientele, the proprietors pretended they did not know they were serving a woman. While the men may have been charmed by her looks, her interest in them was their intellectual stature. Besides mathematics and the sciences, she had a passion for the opera, theater and gambling. She preferred to play cards with men, who played for higher stakes. The marquise was not anxious to end the marriage when the marquis suggested it.

Among her many lovers the one who lasted the longest was Voltaire. He wrote of her: "Everything about her is noble, her countenance, her tastes, the style of her letters, her discourses, her politeness. . . . her conversation is agreeable and interesting." The two spent most of their time together at Cirey-sur-Blaise, where she had a physical laboratory constructed so they could perform scientific experiments and study both day and night. The couple collected a library of 21,000 books, including those dating from ancient times to their present day. She enjoyed performing in theatrical scenes written by Voltaire for the entertainment of their guests at Cirey. The Marquis sometimes visited Cirey and apparently a respectful friendship existed among the trio.

Frederick, King of Prussia, attempted to get Voltaire to join his court, and the monarch earned the Marquise's hatred for failing to include her in his invitations. The couple frequently attended the salon of Marie de Vichy-Chamrond, Marquise du Deffand, who has been described as having the best mind and the worst character of any of the *salonnières*. Apparently preferring that Voltaire leave his mistress at home, Deffand, referred to as a she-cat by one historian, offered the following unflattering description of the Marquise du Châtelet:

"Imagine a tall, hard and withered woman, narrow-chested, with large limbs, enormous feet, a very small head, a thin face, pointed nose, two small sea-green eyes, her color dark, her complexion

florid, her mouth flat, her teeth set far apart, and very much decayed: there is the face of the beautiful Émilie, a face with which she is so well pleased that she shares nothing for the sake of setting it off. Her manner of dressing her hair, her adornments, her top-knots, her jewelry, all are in profusion; but as she wishes to be lovely in spite of nature, and as she wishes to appear magnificent in spite of fortune, she is obliged in order to obtain superfluities to go without necessities, such as undergarments and other trifles.”

In January 1749, informed Voltaire that she was pregnant but he wasn't the father. That honor went to the much younger Jean-François de Saint-Lambert, poet and military officer with whom she had fallen in love. Voltaire, Saint-Lambert and the Marquise successfully conspired to convince the Marquis du Châtelet that he was the father. Voltaire spoke of her final days: “She had not finished writing her explanations when she foresaw that death would carry her off... From that time on, her one thought was to make use of the little time she had left to finish what she had started and to deprive death of what she regarded as the best part of herself. Overwork and lack of sleep, when rest might have saved her, finally brought about the death she had foreseen.” On September 4, 1749, at the age of 42, she gave birth to a daughter. Voltaire described the scene thusly, “The little girl arrives while her mother was at her writing desk, scribbling some Newtonian theories, and the newly born baby was placed temporarily on a quarto volume of geometry, while her mother gathered together her papers and was put to bed.” Six days later, in the company of her husband and two lovers, Voltaire and Saint-Lambert, died as did the baby soon after.

Châtelet is featured not because of her *amours*, but rather for her intellectual works, in particular her excellent translations of and commentaries on the works of Leibniz and Newton. Due to her talent for languages, she translated into French classical works and works in foreign languages that she believed to be of merit. In 1735 she undertook a translation of Dutch physician and satirist Bernard Mandeville's

*Fable of the Bees*, a controversial collection of essays that was condemned all over Europe. For her the work was a Feminist Manifesto, a book she believed to be one of the most moral books ever written. She made an impassioned plea for the rights of women, arguing that women, like men, should be encouraged to develop their natural talents and improve their minds. In 1736 she wrote three chapters of Voltaire's *Grammaire raisonnée* in which she demonstrates the logical relation between reason and language. Châtelet submitted her *Dissertation de la nature et la propagation du feu*, an essay on the nature of fire, to the French Academy of Sciences for its prize in 1744. It did not win; the prize went instead to Leonhard Euler. Still, the Academy published her paper. She explained Leibniz's metaphysical theories, as expressed in his *Monadologie* (1714), in a very well written work *Institutions de physique* (1739). Her *Discours sur le Bonheur* (*Discourse on Happiness*, 1746-48) was published after her death. In it she gave her personal reactions to major issues of the time, including virtues, happiness, and the abandonment of prejudice, passion and illusion.

's major work was a translation of Newton's *Principia Mathematica*, still the only French translation. She began it in 1745, with part of it published in 1756 under the direction of Alexis-Claude Clairaut, at the time the only one in France who supported Newton's theories. Clairaut proofread her work and verified that her calculations were correct. The complete work appeared with a preface by Voltaire ten years after her death. He wrote: "Madame du has rendered a double service to future generations of scholars in both translating the book *Principia* and in enriching it with her own explanations. It's true that *Principia* was written in Latin, a language which is understood by all scholars, but it's exhaustive to read about abstract matters in a foreign language. Besides, Latin does not have the words and phrases needed to express modern ideas in mathematics and physics. ... French, a language used by people all over Europe, doesn't have this problem. Because it contains a more up-to-date vocabulary, it's more suitable for spreading this new knowledge throughout the world." Thanks to Émilie du Châtelet, knowledge of Newtonian mechanics became widespread throughout France, spawning

considerable research in that country.

**Quotation of the Day:** “She was a great man whose only fault was in being a woman. A woman who translated and explained Newton ... in one word, a very great man.” – Voltaire