# BOTANICAL PALIMPSESTS, OR ERASURE OF WOMEN IN SCIENCE: THE CASE STUDY OF MME DUGAGE DE POMMEREUL (1733–1782)

## SARAH BENHARRECH<sup>1</sup>

**Abstract.** While 18th-century French scientific institutions such as the Parisian academies and the *Jardin du Roi* did not accept women among their ranks, the few contributions that women made to Old Regime science have been either forgotten, erased, or attributed to their male counterparts. Mme Dugage de Pommereul's life and work (1733–1782) are a prime example. Although she gained some recognition from 1778–1780, she sank into oblivion in the 19th century when all mentions of her were gradually obliterated. She worked under the supervision of A. Thouin in 1778 and assisted her former professor A.-L. de Jussieu (1748–1836) who entrusted her with the preparation of a study of grasses and a contribution to the *Encyclopédie méthodique*. Joseph Dombey (1742–1794) dedicated the short-lived *Dugagesia margaritifera* to her. Ortega Gomez (1741–1818) awarded her a degree from the Royal Academy of Medicine in Madrid, and Linnaeus the Younger named the *Pommereulla cornucopiæ* in her honor. Piecing together biographical elements with archival evidence, this study provides for the first time a narrative of her life and botanical practice.

Keywords: Paris, A-L. de Jussieu, J. Dombey, A. Thouin, Pommereulla

Wondering why there were so few women scientists in the past, Londa Schiebinger in The Mind Has No Sex? (Schiebinger, 1989) reconfigured the history of science as misogynic because scientific institutions excluded women from their ranks. She also remarked that women who attempted to engage in scientific pursuits may have been discouraged by the mechanicist turn of modern science or put off by the sexual politics deriving from Linnaean metaphorical descriptions of the sexual life of plants (Schiebinger, 1993). Focusing on women's reluctance may, however, create the impression that they had no interest in science. The first step in ascertaining if women were truly absent from fields of scientific inquiry would be to adopt a larger view that eschews concentrating on the institutions, and, as Sarah Hutton invites us to do, focusing "on only the few high-profile women who had the attendant disadvantage of ignoring their less famous colleagues" (Hutton, 2011: 22). This approach goes hand in hand with reevaluating science as it was practiced in 18th-century France and distancing ourselves from our paradigms of what constitutes the profession of scientist nowadays. The distinction between professionals and others was not well defined nor was it as prevalent as it would become in the subsequent centuries. In the feminine practice of science and its probable reluctance to cross the publication threshold, sociological factors such as rank, gender, and morals played a greater role than strictly skill-related considerations (Seguin, 2004).

However, these historical perspectives still tend to see the past as an inert matter waiting to be investigated, as much as they fail to examine it as a living historical byproduct of present times. They obscure or do not put enough emphasis on the slow erosion at work on material sources. Testimonies and evidence are lost, not only because accidents destroyed them, but also because past and present historians did not deem them worthy to preserve. Although abstract time is commonly held responsible for the fortune of the deserving and the disappearance of the obscure, acting like a great decanter, ideology and prejudice are to blame for creating women's invisibility in science. As we shall see, a trend, akin to the process of de-feminization in science that Ann B. Shteir (Shteir, 1996) documented for female botanists in England, also occurred in 19th- and 20th-century France and led to the concerted and systematic destruction of evidence of female involvement in science. Past historians' bias not only distorted historical accounts, but also led them to select what conformed to their thesis; to transform or falsify what did not conform; or worse, to destroy evidence of the contrary.

The life and work of Mme Dugage de Pommereul will fittingly exemplify this ideological shift in historiography. It is the story of her fate in archival documents that I present here as emblematic of the deliberate erasure of a woman botanist in late 18th-century France. Mme Dugage worked under the supervision of André Thouin, the head gardener of the Jardin du Roi, and assisted her professor Antoine-Laurent de Jussieu. Her botanical competence was then so prized that Buffon entrusted her with a study of grasses and a contribution to the Encyclopédie méthodique. She rose to fame in the late 18th century. Unfortunately illness-she died of breast cancer-curtailed her endeavors, likely before she could publish. Since her death, her existence has been gradually erased from botanical works to such an extent that you will not find her name in dictionaries nor in historical works. On the basis of new evidence that I discovered in libraries and archives, I will present how 19th- and 20thcentury scholars have all deliberately cast her aside, without even acknowledging her in a footnote.

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<sup>1</sup>School of Languages, Literatures, and Cultures, 4125 Library Lane, University of Maryland, College Park, Maryland 20742, U.S.A.; sbenharr@umd.edu

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#### BIRTH AND EARLY LIFE OF MME DUGAGE

Elisabeth-Julienne Pommereul was born on 5 July 1733 (Ille-et-Vilaine Parish Registers, Brie, 1733: 12) and baptized on the following day, in a rustic, sturdy, austere-looking manor of la Godinière near Brie, a small village near Rennes in Brittany. Her father, Guy-René Pommereul des Longrais, was a lawyer in the Breton parliament, and was a member of the minor nobility or the nobiliary plebs. Her mother, Louise-Thérèse Letort, lady of Navinal, came from a similar background, where most of the men were attorneys, seneschals, or lawyers, who lived off rural properties.<sup>2</sup>

During the years following Elisabeth's birth, three siblings would be born: Thérèse-Renée in 1735; Renée-Anne in 1736, who would die at the young age of 11; and a brother, Sébastien Marie in 1737. None of her family gained fame except for her cousin, François-René-Jean de Pommereul (1745–1823), who authored several books and served in Napoléon's imperial administration.

Little is known about Elisabeth's education except what we can glean from reviewing a few hand-written documents. She could sign her name at 13 when she sometimes accompanied her mother to their church where they would witness weddings and baptisms. Her mother ensured that her daughter would become a lady enmeshed in the social fabric of Brie. In 1747, she was the godmother of a little girl to whom she gave her first name, Elisabeth. Two years later, she was again a witness and signed "Elizabeth Daislongrais Pommereul," Fig. 1. When Elisabeth reached adulthood, her letters demonstrated a mastery of grammar and spelling superior to most writers. For instance, her spelling is far better than André Thouin's, who as the gardener who succeeded his father, never had any formal education. Her word letters are nicely shaped; her accentuation is consistent and her syntax mostly correct and bears nothing in common with the phonetic spelling of Mme Geoffrin, Mme de Graffigny, or Mme de Genlis (see Goodman, 2002). Probably Elisabeth benefited from some form of formal education, be it with a private instructor or in an institution.

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FIGURE 1. Departmental Archives of Ille et Vilaine, Brie 1749, 10 NUM 35041 100.

The eulogy that her cousin wrote for her in 1778 helps to further conjecturing about her education. Besides a few lines devoted to her beauty and modesty, from which little personal knowledge can be drawn, as these were simply mandated by social protocol, Pommereul informs us that Elisabeth was curious and showed a keen interest in the sciences, which first led her to study mathematics, then to improve her expression, style, and grammar: "Born with all the graces of the mind and beauty, you did not disdain science, which other women seem to seek only to supplement these two gifts of nature. You only applied yourself to those with a real useful goal.

You wanted to know mathematics, and you learned them with the most peculiar ease. The study of our langage and grammar did not deter you despite its tediousness" (Pommereul, 1778: v-vi).

According to her cousin, Elisabeth studied botany with the primary goal of educating the poor and superstitious Breton peasants, thereby participating in the entrepreneurial physiocratic movement that was dedicated to renovating and modernizing French agricultural practices. Brittany was an ideal candidate since its soil was known to be unfertile with its population's diet relying mostly on rye. It was also commonplace to justify the study of plants with a useful ultimate goal such as medicine or agriculture. Pommereul praised his cousin's scientific and literary knowledge, but nevertheless reassured his readers that her taste for intellectual pursuits did not diminish her femininity in any way. Never did she exhibit her knowledge, Pommereul is quick to add, no more than she transgressed the limits assigned to her gender:

"The works of these eternally famous men, who gave France its immortal glory, shared with those of the ancient Romans, the pleasure to amuse your solitude. I often saw Voltaire, Virgil, Lucretius, and Buffon on your vanity in place of a jar of blush or a patch-box, which surprised me even less than your extreme discretion that led you to hide hitherto so rare and profound knowledge" (Pommereul, 1778: vi–vii)<sup>3</sup>.

By selecting one ancient and one modern author in the epic genre and in natural history, her cousin used the four writers as metonymic figures for literature and science. The epic illustrated by Virgil author of the *Æneid*, emulated by Voltaire with the *Henriade*, still was the most prestigious literary genre in the Enlightenment. Readers could have expected to read "Pliny the Elder," the author of the Natural History, as the pendant of Buffon, rather than Lucretius, whose name was used as a label for 18th-century materialist philosophy. Could he be hinting at a major influence in Elisabeth's intellectual life? Probably Pommereul divulged his own interests instead of his cousin's. The mention of Lucretius demonstrated his fine understanding of Buffon's natural philosophy. Furthermore, Pommereul had a predilection for the Epicurean Roman poet in whom he found support for his atheism that he would later make public in one of his publications.<sup>4</sup>

For whatever reason he may have had, his homage made

<sup>2</sup> The professions chosen by her male family members are consistent with the observations of Michel Nassiet who noted that during the 18th century, members of minor nobility gradually tended to stay away from attorneyships and seneschalships by fear of degradation, and, instead, sought parliamentary lawyerships (Nassiet: 23, 309).

<sup>&</sup>lt;sup>3</sup>All translations from French and Latin are the author's.

<sup>&</sup>lt;sup>4</sup>In 1783 he wrote an essay eloquently entitled *Recherches sur l'origine de l'esclavage religieux et politique du peuple en France* and *Contes théologiques* in an anticlerical and erotic vein. S. Maréchal listed him among the atheists in his *Dictionnaire des athées anciens et modernes* (78).

clear that Elisabeth had first chosen to study mathematics, and later botany in a context when physiocratic thought had stimulated many agronomy improvement projects since the publications of essays by Cantillon, Quesnay, and Mirabeau. In sum, Pommereul highlighted the fact that Elisabeth was an autodidact with eclectic tastes; she pursued a superior education on her own, all the while preserving appearances and decorum. A portrait corroborated by two other testimonies, with multiple references to 'natural education.'

In the portrait of Elisabeth that her friend Lohier de La Saudraye gave in his letter to Linnaeus the Younger, he dwelt on how intuitively she acquired scientific knowledge: "As early as childhood, she was drawn to this curious part of natural history by inclination and by instinct, so to speak, she sensed the art of observation" (Lohier de La Saudraye, 1779: 431). Thanks to her innate qualities, Elisabeth was able to compete with the best experts.

"As a result, with no guidance and with no master other than nature and her own genius, without even books and without knowing any naturalist, in the middle of the countryside, she conducted all the experiments that Reaumur did, and she brought this science as far as the famous naturalist did; she even went further in some aspects" (Lohier de La Saudraye, 1779: 431).

We suspect that Elisabeth's interest in insects was actually his own, when a few lines later, Lohier de La Saudraye requested Charles De Geer's study of insects for his own use. Nevertheless, his portrait confirms that botany was not Mme Dugage's first passion, yet its practice was prescribed to her as a remedy for her poor health: "After the fortunate prelude of her astonishing childhood, she devoted herself daily to botany as her health required some exercise, and has reached a point where she now outshines us all. Fortunately her youth assures a career that is just beginning" (Lohier de La Saudraye, 1779: 431). La Saudraye tends to greatly exaggerate; by no means was Elisabeth young. She was then 46, which made her an old woman by 18th-century standards. His evocation of Elisabeth's health borrowed from well-known Rousseauist discourse on the benefits of botany as a preservative from vice and other perils of leisurely life that the philosophe developed in his Lettres élémentaires sur la botanique (1771–1774) to Mme Delessert's daughter. Practicing botany involved outdoor activities that would counteract the harmful consequences of a sedentary life at a time when the famous physician from Geneva, Théodore Tronchin, advocated for daily walks. Botany was a remedy for healing the body and the soul.

Mme Necker also corroborated Elisabeth's depiction as an autodidact when she portrayed her as a model of natural education in a collection of essays she wrote on feminine education. She argued that meditation and attention sufficed to become learned and to assert her point, she invoked Mme Dugage's example:

"Mme Dugage learned botany through observation and reflection, and without books; she had devised a particular method of classifying plants and memorizing them. She had acquired a commanding knowledge so that when she was loaned botanical works, she knew their content, except for words and names, and so much more that she was even able to correct the author. This proves what can be accomplished through meditation and attention" (Necker, 1798: 12).

Old Regime women were not allowed to study in any of the universities. They could not engage in any professional pursuits except a few resolutely feminine ones such as embroidery or selling articles of clothing. Acquiring knowledge as a solitary pursuit was not a voluntary decision but the only resort for women who aspired to gain advanced proficiency in any intellectual field. What Lohier de La Saudraye and Mme Necker both emphasized are the determination and the talents that distinguished Mme Dugage from her peers. Not only did she study on her own but leading botany experts also praised the competence she had acquired. This was the inexplicable and unexpected outcome in a society that had begun to value merit over the privilege of birth.

Mathematics, grammar, philology, and botany contributed to the intellectual progression of Mme Dugage. She was also proficient in Latin. In her letters to her mentor Antoine-Laurent de Jussieu, Elisabeth quoted Virgil's *Eclogues* in a famous passage about Daphnis's death (5, 25), which denotes classical training and a comprehension of Roman poetry. Overall, she was culturally well versed in the arts and humanities. For instance, in another letter to the same correspondent, she cited Lully and Quinault's opera Phaéton, tragédie en musique (1683) (Buford, 2009: 250). In conclusion, it is evident that Elisabeth was successful at educating herself for she was knowledgeable in ancient and modern literature. Latin, mathematics, and natural history, etc. She combined a bookish education with her outdoor empirical observation of plants. In the testimonies of her contemporaries, she embodied the ideal Enlightenment education model, decisively shaped by the pedagogical perspectives that Jean-Jacques Rousseau (1712-1778) envisioned and popularized for boys. Her friends used the most flattering terms to express their admiration and to that end they drew their inspiration from the then most prestigious contemporary Enlightenment sources.

### PROVINCIAL ENLIGHTENMENT

The Age of Enlightenment did not only happen in Paris and in other European capitals. French provinces also participated in the general keen interest in the sciences, the arts, and ideas. The multiplication and rise of provincial academies have been well documented (Roche, 1989; McClellan III, 1985); much less so the contributions of so called amateurs who held a key role in the development and propagation of Enlightenment ideas beyond Parisian elite circles.<sup>5</sup>

<sup>5</sup> We must except from the relative indifference to amateurs, the important work of Roger L. Williams (2001) who researched many little known or unknown practitioners of botany outside or at the periphery of institutional venues.

The following factual episodes will broadly sketch the scientific infatuation that seized all ranks of the cultivated French and, in particular, Elisabeth's milieu.

On 29 December 1768 Voltaire wrote a lighthearted letter graced with a few verses to thank a young woman who had sent him an "élixir de longue vie" or elixir of life, usually a recipe for a potion that promised to ensure the drinker a healthy and long life. His correspondent was Mme Renée-Anne Bichon de Pommereul from the city of Fougères (Voltaire, 1974, D15397). She was the wife of Guy-René Pommereul's half-brother, and therefore Elisabeth's aunt. No doubt this lady would cherish Voltaire's letter as a keepsake. The renowned philosopher well knew while penning his response that his letter would become the talk of the little Breton town and would be preserved as a fetish of Enlightenment luminaries. Charles-Joseph Lohier de La Saudraye, whom we mentioned earlier, was a close friend of Elisabeth. He came from a similar background, which we might call the active fringes of the Enlightenment. His elder brother, Pierre-Augustin-Marie Lohier, corresponded with the naturalist Réaumur to inform him of a curious electrical phenomenon he witnessed on a stormy day. He gave a detailed account of the shape, size, and appearance of the "luminous corpuscles" that he compared with worms, alluding to Réaumur's expertise in insects. Lohier also demonstrated a knowledge of the meteorological cause of the phenomenon, duly noting the day's weather and temperature. Refraining from giving any conclusion, the writer was content with carefully describing what he saw and counted on the naturalist to interpret the facts. Therefore, Lohier fully assumed his function of factcollector, and left it to the scientific authorities to understand the inner workings of Nature's spectacle. In so doing, the amateur offered help to the tenants of institutional science by collecting empirical facts. In response, the Academician published the letter in the 1746 volume of the memoirs de l'Histoire de l'Académie royale des sciences (1751: 23–24). Natural philosophy was also a keen interest of Lohier's brother, Lohier de La Charmeraye (1720-1783), who owned a copy of the Nova Plantarum Americanarum Genera by Charles Plumier (FR13010, University Library of Sciences and Techniques, Bordeaux). Lohier de La Saudraye showed his entrepreneurial fiber when, in 1787, he recorded an exclusivity contract for the "manufacturing of vitriolic acid, marine acid or artificial soda" that he planned to produce in a workshop near Guérande (Partnership Agreements 1770-1790, 144 deeds registered in the notary in Paris district of Luxembourg by G. Nahon, 1995-2000, ET/ XCI/1233, French National Achives, Paris, hereafter AN). As for Elisabeth's cousin, Pommereul, he published several works in natural sciences, philosophy, fine arts, and military strategy. One could object that these few scattered elements are too fragmentary to paint a decisive portrait of intellectual and scientific activities among the French provincial elite. It is indeed possible that these moments remained exceptional, but it is even more plausible that the fragments have been preserved from oblivion for the very reason that they were related to two famous people of the French Enlightenment, Voltaire and Réaumur. If so, one should suppose an even more frequent and intense contribution of amateurs to the development of natural sciences.

In 1755, Elisabeth married François-Alexis Fresnel (Monterfil 25 October 1772–Iffendic, 25 March 1785) (Ille-et-Vilaine Parish Registers Monterfil 1722: 7; Iffendic 1752-1764: 169) Sieur Dugage, a Breton landowner and magistrate. She was 22 and still a minor; the groom was 33. Her husband came from the same social class, minor nobility, with duties in the parliamentary judicature. François-Alexis bore the title avocat au parlement even though there are no signs that he ever practiced law since his name was not listed on the Tableau des avocats au parlement de Bretagne (Anneix de Souvenel, 1755). He lived in the nearby little town of Monterfil, near Iffendic, where his father performed the duties of seneschal (judge of local affairs) during his lifetime. We do not know if the union was happy. If she had children, none of them survived her (see Accounts of the Estate of dame du Gage, Fonds de la Nicolière, ii, 133. Archives of Nantes). Fresnel Dugage would pass away alone in the manor of Iffendic in 1785. Once married, Elisabeth may have lived in Monterfil or in Rennes for a few years. She regularly visited her mother in Brie. Eight years after her wedding, she signed with her husband's name, "Mme Du Gage," but eventually she referred to herself as "Mme Du Gage de Pommereul," Fig. 2. Whatever place her husband may have held in her life, her friendship with Lohier de La Saudraye is far better documented.



FIGURE 2. Departmental Archives of Ille et Vilaine, Brie 1767 10 NUM 35041 114.

His name constantly appears in association with Mme Dugage's. Breton born in Rennes, Lohier belonged to the same social group whose members held positions in the royal judicature and administration. While his father was a seneschal, La Saudraye was a lawyer by training. When Mme Dugage lived in Paris in the late 1770s, she referred to him as her "companion" in a letter to her professor Antoine-Laurent de Jussieu (J. Laissus, 1964: 33). 19th- and 20thcentury commentators sometimes winced at the mention of this "irregular couple" (Henriet, 1932: 291) and hinted at a possible adulterous relationship. However, before casting her as a woman of ill-repute, and making a moral judgment, let us consider that his presence in Elisabeth's life is evident as early as 1763, when she attended a wedding in Brie, in his company and her mother's (Ille-et-Vilaine Parish Registers Brie, 1763: 8). In 1776, while Mme Dugage was studying botany in Paris, she welcomed Lohier's mother in her own house in Brie, where the old lady would eventually pass away. The friendship between Mme Dugage and Lohier de La Saudraye therefore encompassed the exclusive type of relationship that may join two individuals together. Personal inclinations were strengthened by ties of loyalty among Breton families of similar origins and backgrounds.

Lohier's social trajectory is especially of interest because it illustrates how the upward social mobility of Breton minor nobility and bourgeoisie significantly derived from the commercial activity of France with its colonies, and especially with Saint-Domingue, where slave-produced sugar and indigo became major sources of wealth and economic development in the 18th century. His brother,<sup>6</sup> François Lohier de La Charmeraye, left the port of Nantes on 26 November 1742 to settle down in Saint-Domingue, where he entered the judicial administration of the city of Cap Français. In 1761, he was a lawyer and was promoted to the rank of first substitute of the general procurer in 1773, and counselor at the Superior Council of the same city till 1777, when at last he requested his leave from the royal administration (Archives Nationales d'outre-mer, Personnel Colonial Ancien, 1774–1783). Lohier de La Saudraye followed in his footsteps. He joined him in Saint-Domingue to serve on the council of Fort Dauphin in 1768 (Moreau de Saint-Méry, 1768: 200), then in Cap Français. In 1745, La Charmeraye married Marie Thérèse Lepelletier de la Chaize, a creole and French colon born in Saint-Domingue. The several houses that he purchased there provided him with a steady flow of income when he returned to France in 1773 (Estate inventory MC/ET/XCI/1217, AN). His social promotion was definitively validated when he married his daughter to the general procurer Viau de la Thébaudière. Social upward mobility was facilitated by widespread slavery. The indigo and sugar cane crops were profitable thanks to slave labor. Like many colons, La Charmeraye owned slaves. Several advertisements published in the newspaper the Affiches

américaines indicated that he searched for marooned slaves who had fled their lodgings. "Petite-Zabeth," an 18- or 20year old, escaped in 1767; her body was easy to identify by the marks left by whipping.7 Seven years later, three little slave boys named Philippe, Germain, and Pierre ran away from the house of Lohier.8 With the colonization of Saint-Domingue came the development of colonial administration, which in turn gave new professional opportunities to the members of minor nobility in search of annuity-paying positions. It is noteworthy that none of their ancestors had the same opportunities so they stayed in Brittany, whereas La Saudraye and his brother moved to Paris after their tenures in Saint-Domingue. The close association of Breton minor nobility with the colonies and its infamous slave trade extended to the commercial development of port cities such as Le Havre, Bordeaux, or Nantes where Mme Dugage lived in the 1770s. There, she became acquainted with the Bonamy family, whose members made a name for themselves in medicine, botany, and colonial commerce. Mme Dugage's practice of botany therefore took place at the nexus of three interrelated currents. By promoting and valorizing natural philosophy, Enlightenment culture spurred the participation of amateurs or fact-collectors in the making of empirical science. Colonial exploitation of slave-run plantations prompted the dramatic rise in wealth of the Atlantic port cities of Le Havre, Lorient, and Nantes, as well as benefited the minor nobility and parliamentary bourgeoisie who found lucrative positions in the colonial administration. Lastly, botanical knowledge and collections greatly expanded with the discoveries of plants in Saint-Domingue and the Caribbean.

# BOTANIZING IN PARIS

After her wedding in 1755, Mme Dugage left few traces, except for scant mentions of her in Brie and in Nantes in the circle of François Bonamy (1710-1786). We rediscover her in 1775. By then, Elisabeth Dugage de Pommereul lived in Paris. She was 42 and separated from her husband. She lodged in a garret in the Royal Botanical Garden of Paris where she diligently attended Antoine-Laurent de Jussieu's courses for at least three consecutive years, in 1775, 1776, and 1777 (S. Benharrech, in prep.) in the company of Lohier de La Saudraye. Antoine-Laurent (1745-1836) had joined his uncle in 1765 and began teaching botany in 1770. He succeeded his uncle in 1778 and also substituted for Le Monnier from 1770 till 1785 (Brongniart, 1837: 5-24; Stafleu, 1973: 198-199). During this period, Mme Dugage became acquainted with the young Joseph Dombey who was preparing his expedition to Peru, and who would always remember their friendship with fondness. Mme Dugage also met Bernard de Jussieu, André Thouin, Desfontaines, Buffon, etc.

From the time of his nomination in 1739 to his death, and especially in the years 1771 onwards, Buffon strove to expand the *Jardin du Roi* (Laissus and Torlais, 1986:

295). After the Intendant secured funds from the minister Lavrillière, Antoine-Laurent de Jussieu undertook to reconfigure the Botany School's flowerbeds according to the principals of the méthode naturelle that he laid out in April 1774 in his presentation to the Academy (see Jussieu, 1778: 175-197) after his uncle had implemented it in the Jardin du Trianon from 1759 onwards. The rehabilitation of the Botany School's Garden occasioned at last the belated adoption of Linnaeus's binomial system in 1775. In the following years, the surface of the Botany School's Garden was doubled, and in 1788 the School could proudly boast of 6000 plants (See Thouin, unpublished "Mémoire concernant le Jardin du roi pour sa culture avant son aggrandissement," AJ/15/503, AN). Antoine-Laurent's main project executor was André Thouin, the often overlooked yet dedicated gardener-in-chief who had succeeded his father when he was 18 (see Laissus and Torlais, 1986: 319–341).

Thouin tirelessly worked for the improvement of the Botany School's Garden. He would buy trees, review renovations, manage the staff, and keep the books. The School's Garden demanded constant care, Thouin reminded

<sup>&</sup>lt;sup>6</sup> La Saudraye had two more brothers and one sister. Pierre-Augustin-Marie Lohier, the elder (?–1801) was a lawyer in Rennes, then in Paris. Hyacinthe-Jean-Valentin Lohier du Mezeray (1727- ?), also a lawyer, lived in Rennes. Their sister, Pelagie-Jeanne-Louise Lohier de La Charmeraye, resided in Paris, on Saint-Louis Street on Notre-Dame Island.

<sup>&</sup>lt;sup>7</sup> http://www.marronnage.info/fr/lire.php?type=annonce&id=10902

<sup>&</sup>lt;sup>8</sup> http://www.marronnage.info/fr/lire.php?type=annonce&id=4148

les Mil. anthoxanthum Soralum Muss. D. Ortega liss. D. Spielmann - le phaloris aspera de l'école exactement . Supprimer O'Gleum. Mess. D. Source aculeaum de Sylverie Jula Satu bosus. Sourcet a peut etre lui bon a veliensis. Sprielin. le grand alopec. panicens asta dire quisis ortega: non, mais un espèce de Conchrus nouveau lenn. . l'ast le strai panicies de l'école Villaur cest - le mence que celui a Sem grite de l'école

FIGURE 3. "Catalogue des graminées semées au Jardin du Roi en 1778" Ms 701, BCMNHN<sup>®</sup> Muséum national d'histoire naturelle. On the left, we recognize Thouin's handwriting and on the right, Mme Dugage's. Detail.

the royal administrators ("Etat des ouvriers nécessaires à l'entretien du Jardin du Roi, en cas d'acception du premier moyen," AJ/15/503, AN). In March, it was time to seed annuals outdoors and cover seeds with soil. At the end of the month, all the plants kept in the greenhouses were taken outside. In April, the second seeding of annuals occurred. Alleys and paths had to be cleared. In May, all the plants deemed useful for the School were taken outside from the heated greenhouses. In June, during the botany courses, about 2,400 pots of annuals were moved back and forth from the beds. During the whole season, seeds were collected. Gardeners watered, hoed, and raked daily. As a result, Amelot, in 1779, was proud to announce that between 1000 and 1200 students came to study botany at the School. The School's Garden was in his words "the place where scientists, foreigners, and the most honorable class of citizens meet, drawn by its pleasing location, clean air,

and pleasant walkways" ("Copie de la lettre écrite par M. Amelot à M. Necker dattée à Versailles le 24 août 1779," AJ/15/513: 530, AN). Despite insufficient funding, the School's Garden was a work of love spurred by Jussieu and Thouin, shouldered by a group of amateurs dedicated to the cause of the advancement of botany. Mme Dugage was one of them.

In 1777 or 1778, Thouin gave Mme Dugage her first known assignment. In the Archives of the Museum lies a document entitled "Catalogue of the grasses sown in the Royal Garden in 1778" (Ms 701, Bibliothèque centrale of the Natural History Museum, Paris hereafter BCMNHN; Fig. 3). André Thouin composed the list, on which someone added comments. A careful examination of the handwriting of the anonymous commentator proves that Mme Dugage, whose writing style we know from her letters to Linnaeus the Younger, penned these notes. Her way of forming the

Liste des Seules Graminées qui ont fleuri lette année 1708. dans la pepinière & quelqu n'ert qu'une repetition du phalaris aspera no alopecious bulborus nouvelle Esp vn pea plus fourni que Certbien vue alle espace de Cenchrus converser c'ert le paniceus de l'ét bulbo ... Cert le prime que celui a Semence grire de becoles. a epis phis menus que le l'anarieuse Idem iden · I den beaucoup plus pete dem grand Come Ecole Cunorarus bernindeuris de l'école id 9. Certle pogou fasciculatury Lin audro agrostis mutique bou a mettre en paralelle avec le Capillaris de l'école pro la proch-année

FIGURE 4. "Liste des Seules Graminées qui ont fleuri cette année 1778 dans la pépinière ou quelqu'autre de l'écolle ou couches," Ms 1389 BCMNHN<sup>®</sup> Muséum national d'histoire naturelle. Detail.

lowercase letters "b," "p," "s," "r," and "t" signs her writing style. She later provided a clean copy of the same comments in the "List of only the grasses that bloomed this year of 1778 in the nursery and in any of the School's beds" (Ms 1389, BCMNHN; fig. 4).<sup>9</sup>

This document gives us the rare opportunity to peek into the skilled activity of a botanical amateur: how she fulfilled the task assigned to her, and how she humbly stated her opinion. Both documents reveal her determination to make herself helpful and dependable.

Thouin asked her to inventory all the grasses that grew in the School's beds and greenhouses from the seeds that he kept accumulating in his office. This task involved identifying plants and deciding whether to save them or dispose of them in order to avoid duplicates. Mme Dugage added notes to Thouin's list that recorded 228 samples of grasses. Compiling the inventory was made all the more difficult as seeds were occasionally mixed up and were often identified with temporary names. Thouin had established a large network of correspondents with whom he exchanged seeds (see Spary, 2000: 49–98). Most of the samples came by mail with a simple tentative identification, sometimes just bearing the name of the donor, sometimes both. Other plants came from Thouin's botanizing excursions to areas surrounding Paris. Mme Dugage was expected to sort vast quantities of seeds and plants. A difficult assignment, Desfontaines reminds us, because of the "unavoidable mistakes that are made every year in the Botany School, either because of the seeds spreading from one place to another, or by misplacing tags, or other mishaps" (Desfontaines, 1815: vi). To carry

<sup>9</sup> Until now the authorship of this document has been solely attributed to Thouin (Letouzey, 1989: 98; Kobayashi, 2012: 82) even though his handwriting greatly differs from hers.

out her task, Mme Dugage had access to references in the Botanical Garden's library, especially the herbaria of Vaillant, Jussieu, and Tournefort.

In the 8-page document, Thouin gave each batch of seedlings a number. In total, the "Catalogue" numbered 228 specimens of grasses. The Botanical Garden's collections of seeds were certainly more extensive than what is provided in this list, since seeds did not always germinate and grow, and identification and description had sometimes to be postponed. For this reason, Mme Dugage mentioned that she added the seeds of grasses that bloomed that year except those from which she could sample only one spike. For those, she would differ her study till the following year. Each specimen is named in French or in Latin, on the model of binomial nomenclature, followed by a proper name. Abbreviated proper names are in some cases preceded with the precision in Latin missa/missum de "sent by," which means that those seeds came from the network of Thouin's correspondents. The numbering was an inventory tool. Upon receipt of seeds, Thouin probably gave each consignment a number that he carefully copied on tags in the School's nursery and flowerbeds to bind together the donor, the tentative identification, the seeds, and the plants in their grown forms. The goal was twofold: catalogue all the donations and verify -or establish- the determinations. Other proper names seem to indicate that the plant had been identified as such by the botanist who sent it. However, in most cases, it is likely that proper names revealed the identity of the sender as well as the author of the identification. For instance, number 15, "Hordeum vulgare coeleste M<sup>d</sup>. du Gag" (probable syn. of *Hordeum vulgare* L. Sp. Pl. 85 1753) could either mean that the specimen was a gift from Mme Dugage or that she suggested the identification of Hordeum vulgare coeleste, or both.

As this document shows, Thouin received seeds and plants from Casimir Ortega, Pierre-André Pourret (1754-1818), Antoine Gouan (1733-1821), Jakob Reinbold Spielmann (1722–1783), Dominique Villard (1745–1814), Carlo Allioni (1728-1804), and many others. "When Thouin's correspondents requested species from him, they relied upon such inscriptions, increasingly the Linnaean binomial nomenclature, to communicate. Sometimes a full-length description was given, always in highly stylized form" (Spary, 2000: 80). In the 1778 "Catalogue," Mme Dugage is responsible for identification by comparing the newly acquired plants with the specimens kept at the Botany School. It was also her responsibility to organize the specimens, eliminate any duplicate plants that were already in the School's collections. In many cases, Mme Dugage gave priority to the School's Garden plants over the newly acquired species. For instance, number 3, "Phleum lima" sent by Spielmann is identical to "the School's Phalaris aspera exactly" that is number 12. So she decided to "eliminate" the first one. Elsewhere, she corrected a few determinations. A specimen of Alopecurus pratensis (Alopecurus pratensis L. Sp. Pl. 60 1753) identified as such by Ortega is, according to Mme Dugage, "a species of Cenchrus new." In other instances, she evaluated the specimens' specific value, and in fine determined whether

or not the School should keep them. Number 63, the Holcus lanatus (Holcus lanatus L. Sp. Pl. 1048 1753) "looks like the Halepensis but without any awn." Later she added: "it grew some, that's it." As she observed the grasses through the successive stages of vegetative growth, she reviewed and amended her first evaluations. At first glance, she declared about number 40, "Agrostis capillaris id. [Ortega]," "it seems to me true (mutic)" and identical to the School's specimen, but upon second glance, she noticed a slight difference: "imperceptibly different from the School's," so she opted for saving it: "good to keep." Any variation deserved to be inventoried. She held the School's pedagogical mission close to her heart, as seen in her remarks concerning the number 35, "Agrostis arenaria D. Gouan" (= Agrostis arenaria Gouan, syn. of Sporobulus pungens (Schreb.) Kunth): "It is true mutic Agrostis." On second examination, "it should be kept in tandem with the capillaris." Again with the Panicum lineare (Panicum lineare L. Sp. Pl. ed 2 85 1762, syn. of Cynodon dactylon (L.) Pers.) from Spielmann, she declared it another species, the Panicum sanguinale. Yet, she recommended saving it because of the variation in the length of the leaves. Mme Dugage first recognized in the Bromus distachios (= Bromus distachyos L. syn. of Brachypodium distachyon (L,) P.Beauv.) from Pourret, number 131, "the School's Bromus phallaroides, entirely similar to the tall one." In the "Liste" (Ms 1389, BCMNHN), she thought it over and opted for saving the specimen because it was identical to the plant registered the previous year as the B. phallaroides. However, the plant that grew in 1778 showed varietal differences: "It is the School's 1777 Phallaroides. But this year's looked like a dwarf variety. Both should be saved for comparison." For identification purposes, Mme Dugage consulted Jussieu's and Rousseau's herbaria in the Garden's collections. Number 158, mailed by Ortega as a Festuca maritima (Festuca maritima L.), was identified as the "Cyn.[osurus] lima des Herbiers Jussieu" (probably Cynosurus lima L., syn. of Wangenheimia lima (L.) Trin.). In the "Liste" (Ms 1389 BCMNHN), Mme Dugage added the comment: "new species: to be saved." In another instance, number 122, listed by Thouin under the name "Secale reptans Sibérie" has its identification confirmed when compared with dried specimens donated by Rousseau. When in doubt, Mme Dugage referred to Thouin's authority and in some instances she left quotation marks. Another difficulty arose from the fact that at the School and more generally in France, plant nomenclature was transitioning from Tournefort's system of classification and determination to Linnaeus's binomial nomenclature. In the 1778 "Catalogue," many specimens' names bore the annotation "t.," meaning that the name was of Tournefortian nomenclature. Even though Jussieu started using Linnaean names only in 1773-1774 (see Ms 2134 BCMNHN), which was considered late compared with most botanical centers in Europe, some botanists were still reluctant to make the change.

Overall, this document demonstrates that Mme Dugage collected plant specimens and donated some to Thouin. It also shows the meticulous care with which she wrote her opinion and her justification. The text on the "Liste" is neatly organized into two columns. She underlined generic and specific names as well as important words such as her recommendations, so that the reader – presumably Thouin – would easily find the information he needed.

Approximately at the same time, and as early as 1777, André Thouin solicited Mme Dugage's help to gather documents and materials for an ambitious book project about grasses, under the authority of Antoine-Laurent de Jussieu. The book was to include engravings and drawings made at the King's expense. Thouin invited her to contact his correspondence network to collect many samples of grasses. He soon wrote to Carl von Linnaeus the Younger, who had succeeded his father in Uppsala, Sweden:

"A lady, the pride of her sex, distinguished by useful knowledge, counts on your benevolence, and expects from you, Sir, a favor. She undertakes a tedious and cumbersome work on the family of grasses. She was able to obtain all the dry specimens held in the *Cabinet du Roi*, from M. de Jussieu's herbaria and from all French botanists who hastened to supply her with materials and this great work [is] undertaken under the auspices of the government. In spite of all the help, she needs several genera and many species. She hopes that you will agree to loan them, she will take the greatest care, I assure you; her attached letter will inform you of her needs" (10 March 1778, Ms 2081 BCMNHN).

Armed with such a gracious recommendation, Mme Dugage presented her project to him on the same day. Her carefully worded letter reveals the many ambiguities of her position. In the opening lines, Elisabeth Dugage first referred to herself in the third person, as if the extreme disparity between her and him annihilated her ego. "Will you kindly accept the esteem of a French lady who is bold enough to claim that she has benefitted from the Great Linnaeus's immortal works?" The opening lines continue Thouin's letter; they have the same register and bear identical connotations of admiration and worldly politeness. The addressee, lauded as the great man, is begged to come to the rescue of the lady in distress. It is noteworthy that she used the same device to close her letter where the third person nicely contrasts with the last and final self-assertions of "my favor," "I would be bold enough," "I beg you," almost threatening him to go to Uppsala to pick up the samples if he failed to mail them on time!

"If a lady who has no passion other than natural history and who loves to study may be esteemed by you, Sir, if her zeal to meet the expectations of her Nation who awaits a complete body on Grasses in relation to agriculture may speak in my favor, I would be bold enough to beseech you to grant my request: I would add to it, the need to expedite the mailing. If only I could go and seek the resources I need in the scientific museum of the Great Linnaeus and pay to his family the respectful tribute that I beg you to accept here, your humblest servant Du Gage de Pommereul" (Dugage, 1778). After the incipit, Elisabeth Dugage switched to the first person narrative. The back and forth movement between the "we" and the "I" reveals another tension between the two other sides of the triangular relationship. The first person plural appears at the beginning in association with the French nation, and more specifically with the Parisian community of botanists gravitating toward the *Jardin du Roi*. Most notably, from then on, the "we" in Elisabeth Dugage's letter is constantly associated with negative statements. The entity "we" does not have any specimen of seven genera of grasses and when it does, as for the *Cinna*, what they have is pitiful: a panicle without leaves and stem, which makes identification impossible. So she entreated him to send samples of the seven genera in the class of grasses, of which they did not "have one specimen, not one species:"

"We do not have seven genera in the class of grasses; of these we do not have one specimen, not one species. Because M. von Linnaeus's genera are not purely fictitious and are based on nature, you have them, likely in your country or herbaria. I mean the genera *Bobartia*, *Olyra*, *Zizania*, *Manisuris*, *Spinifex*, *Apluda*, *Christrix*<sup>10</sup> and even the *Cinna*, of which we only have a panicle without stem or leaves: essential parts for specific determinations" (Dugage, 1778).

Not only do they have many gaps in their collections, but none of the French botanists possessed any of these. Fortunately, Mme Dugage came. She made it clear that she chose to work on grasses even though she did so at the solicitation of her mentor. Her letter becomes even more assertive in the final two paragraphs where she multiplied first person statements. She pledged her honor to carry out her assignment:

"I undertook this class, the most thankless and the most difficult of all, at the behest of our famous M. de Jussieu and of our dear and learned cultivator M. Thouin, who deemed me capable of the requisite perseverance; I have pledged on my honor that I will collect all the objects and complete this work to be worthy of their trust. All the more so as the government has an interest in it and will defray the costs of drawings and engravings" (Dugage, 1778).

To convey the gravity of her involvement, she appealed to the aristocratic and masculine notion of honor, the sense of one's dignity and public reputation that leads the subject to follow a code of ethical conduct, rather than feminine honor, reducible to chastity. The expressions that she used in her letter all conveyed her acute sense of commitment, and her dependability; she wanted the success of her own undertaking, "succès de *mon* entreprise."

Mme Dugage did not state precisely what her role was in this book project even though her assertiveness implicitly gives her authorial agency. The work she mentioned was to be costly since it would include engravings, done after drawings. In charge of collecting specimens of grasses from fellow botanists, Mme Dugage was at the forefront of the

<sup>&</sup>lt;sup>10</sup> This genus does not exist. Mme Dugage may have misspelled Crypsis.

C Monsieur, D'anni Les Sustes llogen que L'europe entière S'empresse de rendre à la celebrite de Votre Nom & a la Memoire de votre Illustre pere, Le notre aussi en histoire-naturelle Voudrez-vous bien agreer les homagen Dune Dame Francaise qui ose Se flater ~ Davoir profite des Ouvragen immortels du Grand Linnaur. peritier de Ses talents & de Ses vertue La Renomée nous a transmin -Jusqu'ici que vous vour Livriez à la Culture des Blantes & que vous vous faisiez un devoir D'être Communicatif & de Correspondre, Come Uni pour L'instruction des Etranger qui auraient besoin de vos Lumièren. fonde Sur cette assurance, J'ose m'adresser à Nous, Monsieur, pour obtenir des Secours Sont Nous Seul pouvez être Dispensateur. U nous manque Sept Gennes dans la Classe des Gramineer, Dont-nous n'avons pas un Seul Exemplaire, pas une Seule espèce. Come les Genren de M. de Linnaus ne Sont pas de pure imagination & quils Sont fondes Sur La Mature ; Nous Les possedez , Sans doute dans Notre Bays où dans des perbiers. U S'agit des Genren Bobartia, Oligra, Kizania, Manisuris, Spinifex? ~ Apluda, Christrice & meme du Cinna Sont nous n'asons qu'une panicule Sans tige ni feuilles: parties très essentielles pour les détouminations Spécifiques. © The Linnean Society of London

FIGURE 5. First page of Mme Dugage's letter to Linnaeus the Younger, March 1778. Courtesy of The Linnaean Society of London.

undertaking. As a woman she performed the public relations role of the project and made sure that the exchanges were performed in a courteous way. Thouin perhaps may have even hoped that his fellow botanists would be gallant enough to rush to help her with many of their grass specimens. If not, it is difficult to understand why she would be the one chosen to contact botanists all over Europe. Dutifully, Mme Dugage mentioned her protectors who guaranteed the official nature of the request and the seriousness of the endeavor. Yet, Thouin and Jussieu revealed to the European community of botanists that they had a woman on their team. It could be that a study of grasses was not considered dignified enough to be their prerogative. When she qualified the class of grasses as thankless ("ingrate"), Elisabeth Dugage seemed well aware of the niche she had found. In her contemporaries' perceptions, there was, perhaps, little prestige to gain from such modest plants with discreet flowers and low, supple stems.

When describing her book project, Mme Dugage uses the word "body" which she emphasises with the adjective "complete." In 18th-century dictionaries, "body" ("corps") refers to a collection of several pieces, by one or several authors, most notably on laws and regulations, anthologies, etc. Similarly, the expression "compleat body," or "corps complet," is given preeminence in the subtitle of the *Gentilhomme cultivateur, ou Corps complet d'agriculture* (1761–1763) by Thomas Hale and translated from the English *A Compleat Body of Husbandry* (1756–1758). Therefore, Mme Dugage's project looks more like a collection of observations targeted for an audience made of agronomists and agriculturists. However, writing a multivolume book would have been a time-consuming task for a lone writer. It is more likely that her book was collaborative project.

Two months later, in May 1778, Thouin pressed Linnaeus the Younger to send the grass samples to Mme Dugage:

"In my previous letter I had the honor to convey the request of a lady of the rarest merit. She is righfully expecting the assistance of all botanists, including you, Sir, who owe her more than any other because your books were her sole masters and by applying your principles, we will all be grateful for your generosity that will benefit science, I dare assure you" (Ms 2081 BCMNHN).

On 13 July 1778, the Swede answered Thouin in Latin, alleging some delay in the post for his own lateness. He had quickly read Thouin's letter for he had assumed that "M. Du gage" was a man:

"Convey to M. du Gage de Mar... my greetings; I could not perhaps express it successfully in French; tell him that I am wholly and in all my power at his service because he contributes to the glory of botany; I shall not however have the pleasure to mail him plants or seeds of which I only have a single part, a single type" (Ms 2081, BCMNHN). When he learned that his correspondent was a woman, he switched gears stylewise, by inserting amorous metaphors such as "desire," "burn," and "satisfy," in his letter:

"I hope that you received the letters that I wrote to Mme Dugage and you. I informed your learned botanist that I would be ready to fulfill her desires as soon as she tells me the easiest way to collaborate. But there is little time to waste, I am burning with the desire to bring complete satisfaction" (25 December 1778, Ms 2081 BCMNHN).

In January 1779, one year after her initial contact with Linnaeus the Younger, Mme Dugage ought to have received the specimens since she thanked him profusely. Her second letter greatly differs from the first one in tone as well as in content. Mme Dugage tried a very different approach, by infusing her letter with gratitude and sensibility. She is sensitive to the attentions of Linnaeus the Younger. Twice did she repeat the word "pleasure" ("plaisir"), once in thanking him, and a second time when making another request:

"I thank you very much, Sir, for all your obliging and flattering words. Please forgive me if I took so much time to express my due gratitude. Health problems, mounting work prevented me until now from fulfilling my obligation. I was not in the least unaffected by your charming letter and by your shipments that you were generous to send. Grasses were in optimal condition and did not suffer any damage in the transfer. These plants gave me, as well as our fellow botanists, the greatest pleasure, especially because they came from you" (Dugage, 1779).

Her emotional letter culminated in the report of the effects that the King's speech had on her. She reports that she felt complete ravishment ("ravissement," "transport"), an explosion of intense pleasure that is made manifest with the typographical marks:

"I have just read with delight the speech that your monarch gave at the general estates of the nation at the end of October.<sup>11</sup> What a sublime eloquence! What smoothness of style! What a noble simplicity! Ah, Sir, what a man! What a father, what a friend to his subjects! O Swedes, fortunate people: Among all the treasures that Nature bestowed upon you in the most beautiful country in the universe, what else do we not envy you !... Forgive my delight; it is the fair testimony of my deep affection for a prince that reigns over hearts, even of foreigners. He deserves to be forever adored and made for having subjects such as you" (Dugage, 1779).

Such stylistic devices—exclamation marks, nominal sentences, repetitions, and silences—point to her skills as a writer, simultaneously knowledgeable in the literature of her time in which instances of emotional writing abound,

<sup>11</sup>On 30 October 1778, Gustavus III of Sweden (1746–1792) opened the Diet and gave a speech that was so admired in France that the *Gazette de France* published a translation of it in the 8 December 1778 issue of the *Supplément* (413–416).

as well as extremely careful in the crafting of the self image she intended for her correspondent. In her epistolary transactions with a man, Elisabeth Dugage created the *ethos* of a respectable woman, with linguistic marks that contemporaries would construe as evidence of authenticity and virtue. The brief climatic interlude ends with inquiries about the wellbeing of another woman, Linnaeus's daughter and the sister of her correspondent. Then Elisabeth Dugage resorts to more conventional elements of letter writing. The emotional writer yields to the sharp botanist. The switch is nowhere clearer than at the end when she gave advice about the format of the awaited volumes of the *Supplement*:

"If it is true that you strive to augment and improve this superb botanical work, no doubt you will not omit adding two tables of synonymous and vernacular names. We felt they were lacking in the *Genera*. I believe they are indispensible so that there is nothing left to be desired in your new edition" (Dugage, 1779).

A closer look shows that she interspersed her text with many elements hinting at her competence in botany. Mme Dugage first shared recommendations on how to mail dry samples. Then, she doubled the vernacular Fraxinella with its Latin generic denomination Dictamnus. She alluded to the Mantissa Plantarum (Mant. Pl.) first published in 1767, and continued in 1771 (Mant. Pl. Alt.), and to the Supplementum Plantarum (Suppl. Pl.). Her post-scriptum summarizes her final posturing: "I beg you, Sir, to eschew all formality and to write to me as if I were one of your students, in Latin or in French, whichever is convenient for you. In any way, your letters will always be dear to me." She wanted to establish a relationship based on the transmission of knowledge, finding in the teacher-student relationship a model for interactions with male scholars. In February 1780, Linnaeus the Younger showed interest in her project and sent her a thesis on grasses: "Attached to this letter is a dissertation on grasses that I directed but this issue is flawed: as soon as time allows me to pick a more complete copy, I will mail it to your amateur who is, I hope, in good health and to whom I wish it to endure" (20 February 1780, Ms 2081 BCMNHN). In the meantime, Linnaeus the Younger announced that most of his letters were never sent because of a servant who had kept the postage money (Letter received on 10 December 1778, Ms 2018 BCMNHN). He promised that he would mail a specimen of the "Pomeralia" (Pommereulla L.f. Nov. Gram Gen. 31. 1779) very soon.

Encouraged by Thouin, Mme Dugage contacted other botanists. In response, Antoine Gouan and Pierre-André Pourret (Gay 1862, 530) mailed grass specimens to Mme Dugage. On 31 March [1778], Gouan announced that he had received a first letter from her (Ms 1987/535 BCMNHN). In another letter to Thouin, on 4 October 1778, he whimsically called her the "patron of grasses" and asked her to compare the specimen with those kept in Vaillant's and Tournefort's herbaria:

"I am sending to your and her attention a seedling that will interest you. It is triander.

That's why all the Italians took it for Linnaeus's *Scirpus michelianus*. Others took it for the *Juncus bufonius cui maxime affinis* but they were all wrong because that's not it; this seedling is always *simplicissimu culmo et trifloro*; however one day I'll mention it in my second fascicule. In the meantime, please receive it as *Juncus triandrus* and give a sample to Madame. Moreover, she will have the opportunity to browse the herbaria of Tournefort and Vaillant. I beg her to keep me informed of the results of her research and the synonyms that she believes would apply to it" (Ms 1987/536 BCMNHN).

In May 1779, Gouan announced the visit of a friend in Paris, whom he entrusted with a few specimens for Mme Dugage (Ms 1987/538 BCMNHN). Several months later, he complained that she still had not fulfilled his request of the previous year (Ms 1987/539 BCMNHN). However he also took his time and it was only in October 1779 that he mailed the "little fascicule" (Ms 1987/541 BCMNHN) he had promised one year earlier. Other correspondents contributed to Mme Dugage's work on grasses. In a letter dated 10 September 1779, Desfontaines told his friend and fellow botanist Savary<sup>12</sup> who was on an expedition in Egypt that Mme Dugage had requested seeds if he could find some "without occasioning expenses and without running into any danger" (Chevalier, 1939: 208).

Not surprisingly, the young botanist who had spent the most time with Mme Dugage and the small company of friends working on herbaria would have had the most vivid recollections of her. Joseph Dombey left in November 1776, his first stops being Madrid, then Cadiz, from where he boarded on the ship El Peruano to Lima, Peru. Dombey complimented Mme Dugage effusively in his letters to Jussieu from Spain and later from Peru. On 31 March 1777, he exclaimed: "Mme Dugage is a real prodigy. Her amiable qualities and her rare knowledge make her very dear to all the people who are fortunate to know her. She will be cited as a model for posterity" (Ms 222 BCMNHN). Thouin concurred and reminded Dombey that the highest authorities stood behind her work: "Mme Du Gage still counts on you for the grasses. She showed her work to MM. de Jussieu and Buffon who could not be happier" (Ms 2625 BCMNHN). In the following spring, on 16 April 1778 (Hamy, 1905: 240), after his arrival in Lima, Dombey promised to mail grass seeds to her, a task that he still had to accomplish six months later in September 1778 (Hamy, 1905: 242). In April 1778, Dombey invoked her expertise on grasses: "I shall not do like other travellers who sent only what they knew or what they were able to determine. I shall send you everything while confessing my ignorance. I will not forget the grasses for Mme Dugage to whom you will pay my respects, as well as to M. de La Saudraye. This amiable lady will accept the responsibility to determine them" (Ms 222 BCMNHN). From then on, Dombey gave up identifying and describing the specimens and relied on her expertise to do so. In the letter he wrote to their mutual friend, Lohier de La Saudraye,

<sup>12</sup> Claude-Etienne Savary (1750–1788) traveled to Egypt in 1776 where for 3 years he collected plants and gathered information for his *Letters on Egypt* published in 1788.

Dombey finally announced the imminent mailing of grasses "in two copies" with a "selection of new or rare plants that will increase or ornate her herbarium" (AJ/15/511, AN). He declared himself impatient to see the publication of her "work printed by the Academy." More than any others, he praised her personal qualities, skills, and work ethic and congratulated her for being Antoine-Laurent de Jussieu's new personal assistant. In the same letter, we learn that she might also have been contributing to a new project.

According to Dombey, Mme Dugage was invited to collaborate on the new edition of the *Encyclopédie*, better known as the *Encyclopédie méthodique*, that would be published in 1782 and subsequent years.

"Mr. Guettard and Daubenton will be all the more esteemed for bestowing their protection upon our dear friend who should not need any protector. I am grateful that she has been invited to work on the article on natural history in the new edition of the *Encyclopédie*. No one is more capable of better addressing this issue than our respectable friend because she knows well the subject matter. Our dear friend will also couple the beauty of the topic itself with her charming style that it is unusually beautiful. It is thus that women have a delicate touch that men can't achieve, and our dear friend will overshadow all other famous people of her gender" (AJ/15/511 AN).

The *Encyclopédie méthodique* was first conceived of as a revision of Diderot and D'Alembert's *Encyclopédie* (see Doig, 2013). Yet, with the resolute determination of its initiator, the printer and publisher Panckoucke, it quickly grew to enormous proportions. In 1781, Panckoucke announced the publication of twenty-seven treatises in 42 volumes in quarto as well as 84 volumes of plates. The idea of publishing a volume of the *Natural History* on plants had been brewing since 1771 when Panckoucke first contacted Rousseau (Watts, 1957: 321), but the discussion went nowhere. Panckoucke however persevered. In 1778, he promoted his publication project quite successfully in the scholarly circles of Paris (see Watts, 1958; Panckoucke, 153), for in 1779, in a letter to the Société Typographique de Neuchâtel, Panckouche

declared that: "the entire plan of the *Encyclopédie méthodique* is set. I have already entered into three contracts; the censors are designated" (quoted in Darnton, 1979: 410). Panckoucke recruited Suard, D'Alembert, and Condorcet to direct his project. He later solicited the contribution of many more experts, among whom was Thouin, who recalled the beginnings of the publication in his *Curriculum vitæ*:

"Upon the bookseller Panckoucke's initiation, Buffon asked me to undertake the writing of the gardening dictionary for the new *Enyclopédie méthodique*. In the first five half-volumes for this publication, I provided, until 1793, a rather large number of contributions on plant culture, descriptions of tools, and of landscape architectural decorations, which in total represents about the quarter of this part in 4." (quoted in Letouzey, 1989: 66).

Searching for Mme Dugage's contribution in the immensity of the *Encyclopédie méthodique* is like looking for a needle in a haystack. She is not listed among the contributors nor did she sign the rubric "Histoire naturelle" in the fourth volume in the series on Agriculture (Tessier and Thouin, 1796: 615–619). We presume that her project did not come to fruition, and her notes were probably lost before the eventual publication.

While pursuing her botanical endeavors, Mme Dugage consulted Buffon's Natural History, Réaumur's volumes on the history of insects, and the works of Geoffroy and Bauhin. She also worked on Jussieu's herbaria to which she contributed by adding plants that she had collected while botanizing in Brittany.<sup>13</sup> In the meantime, the testimony of Lamarck confirmed her expertise in botany. In his Flore françoise published in 1778, he cited Mme Dugage's observations on the alpine butterwort she saw growing in Brittany (Lamarck 1778, 432). The publication of her study on grasses was announced as imminent in 1779: "Dugage de Pommereul has devoted the best days of her life to the study of botany. She is currently busy with the publication of a work, the fruit of her profound knowledge in such an interesting science" (Riballier and Cosson, 1778: 232-233). As Elisabeth Dugage stood on the brink of becoming a public figure, praise and official recognition started pouring in.

#### HONORS AND RECOGNITION

As early as 1777, Casimiro Gómez Ortega (1741–1818), a regular correspondent of Thouin since 1776 when he was elected associate correspondent of the French Royal Academy of sciences and professor at the Madrid Royal Botanical Garden since 1772 (Gonzáles Bueno, 2002; Puerto Sarmiento, 1992: 321), had learned about her project on grasses. He promised to mail her specimens (15 December 1777, Ms 1913 BCMNHN). Ortega was inclined to assist Thouin whom he had met in 1775 during an extended stay in Paris. Moreover, they had several overlapping interests. With the expansion of Spain's botanical collections in mind, Ortega gleefully entered the scholarly correspondence network that bound botanists together. In their give-andtake relationship, Ortega was the gateway to the numerous plants and seeds that Ruiz and Pavon were collecting in Peru. For that matter, any piece of news concerning the young Dombey interested Ortega as much as Thouin. As an associate correspondent of the Royal Academy of Science in Paris since 1776, Ortega sent Elisabeth Dugage soughtout specimens of the quinquina from Santa Fé. He also announced that the Royal Academy of Medicine in Madrid would present Mme Dugage with an honorary degree as soon as the President had recovered (Ms 1913 BCMNNH, Paris; *Memorias*, 1797: 32). This announcement coincided

<sup>13</sup> A specimen of *Eleocharis* (Cyperaceae): https://science.mnhn.fr/institution/mnhn/collection/p/item/p00668650and one of *Carex humilis* (Cyperaceae): https://science.mnhn.fr/institution/mnhn/collection/p/item/p00668824 are the sole remains of her botanical activity in the French National herbarium (P).

with Antoine-Laurent de Jussieu's presentation (*Histoire* de la Société royale de medicine, 1782: 252–262) on quinquina, partially based on another specimen that Ortega had previously mailed to Vicq d'Azyr. Ortega, however, did not see his generosity reciprocated. On the contrary, he discovered that the report had not mentioned the inventor of the discovery nor the botanical description and the chemical analysis that Ortega had himself conducted and whose results he had shared with Jussieu. Despite his irritation, the Spaniard still fulfilled his promise and mailed Mme Dugage "the degree that all the voting members of the Academy granted her unanimously" (8 April 1779, Ms 1913 BCMNHN). Mme Dugage sent him a brief and modest message thanking him and the Academy:

"I beg M. Thouin to convey to M. Ortega the avowal of my real gratitude for the precious mailing that he was kind enough to do. I assure him that I am as flattered as I am grateful. I dare to beg him again to continue his assistance and accept the sincere homage of his admirer Du Gage De Pommereul."<sup>14</sup>

Encouraged by the first official signs of recognition that Mme Dugage had received, Dombey decided to dedicate a Peruvian flower to her, a plant discovered in the environs of Lima. Dombey wrote to Thouin on 11 December 1778:

"Mme Dugage received the flower that I wanted to add to the crown that her grateful country is weaving for her. I dedicated a plant from the Diandria monogynia to her: this genus includes three species, only two of which will reach her with this mailing, along with their descriptions. Nothing is prettier than this genus (Hamy, 1905: 40).

Dombey extolled her qualities and talents, reading his friend's letters to the small refined society of Lima: "Do you know," he told Lohier de la Saudraye on 11 December 1778,

"...that in the circle of selected amiable men who practice sciences at the extreme point of the world, do you know that Mme Dugage is praised? Her letters have been translated, and our Peruvian ladies won't believe that such a prodigy does exist in Europe. A plant dedicated to our dear friend will remind forthcoming centuries of Mme Dugage's name and talents, and will spur emulation that makes virtues flourish" (AJ/15/511 AN).

However the genus of the plant he intended to name after her, the flower of Amancaës, was already known; his companions Ruiz and Pavon had already named and described it as *Piper umbilicata*. Dombey thus had to find another plant. "The plant that I previously dedicated to her, has just been downgraded with the peppers," he lamented; so he picked a pearly plant in her honor: "At last, to avoid any ambiguity, I dedicated a new genus under the name of *Dugagesia margaritifera*. It is a little perennial shrub, with pinnate leaves, and its fruit is a white drupe with only one stone" (Hamy, 1905: 59–60). Despite Dombey's good will, the *Dugagesia* (sometimes written *Dugagelia*) did not last long. Ruiz and Pavon eventually named it *Margyricarpus setosus* Ruiz & Pav., and the plant would later be accepted as *Margyricarpus pinnatus* (Lam.) Kuntze. Besides, Mme Dugage never saw the specimen and its diagnosis (20 August 1783, Ms 222 BCMNHN) from Dombey (Hamy, 1905: 268–269). Unbeknown to him, she had already passed away.

The ultimate consecration and the only lasting tribute came from Sweden when Carl von Linnaeus the Younger named a genus of grass, the Pommereulla in her honor. On Christmas day in 1778, he wrote to Thouin: "Tell her, when you greet her on my behalf, that I have a beautiful genus of grass that I decided to name after her" (Ms 2081 BCMNHN). He promised to mail the consecrated plant: "The Pomeralia [Pommereulla L.f.] is not included in this letter, I could not insert it, afraid that it would break among the seeds that this letter carries." Mme Dugage thanked him in her January 1779 letter. She keenly appreciated this vastly impressive homage. Not only did the son of Linnaeus gave her maiden name to a plant, but this honor would be continuously renewed in every listing of the plant in taxonomic works, where usually a few lines mentioning her name would explain the designation. Thus, the naming coupled with the explanation was a dual homage to Mme Dugage. Linnaeus the Younger would even go further in esteeming her. On 21 December 1779, Daniel Eric Naezén's thesis on grasses (Nova Graminum Genera, Upsaliæ 31, 1779) introduced the new genus along with a few lines to justify the designation. Two months later, Linnaeus the Younger mailed his student's dissertation to Thouin and Mme Dugage (20 February 1780, Ms 2081 BCMNHN). At the request of his advisor, Naezén lauded her in the historical overview on agrostographia that preceded his thesis. Extolling her aptitudes and profound knowledge of botany, he declared:

"Our hopes are renewed by this illustrious treasure, Mme Dugage whose ardent love for botany always overcame obstacles how large they may have been, when she started to sort out the difficult family of grasses, for which she has spared none of her time, nor effort, nor expenses. For long we have foreseen the worth and usefulness of this work that this woman who comes first in the Muses' contests by her literary talents as well as her skills will write" (Naezén, 1779: 7).

Once she found herself mentioned along with J. Scheuchzer, Linnaeus, C. P. Thunberg, C. König, and C. Friis Rottbøll, she had entered the Hall of Fame of grass experts. Linnaeus the Younger's gesture equated induction and legitimized her status and efforts. The *Pommereulla* belongs to the family of *Poaceæ*, and the name referred at the same time to the genus and to its only species, the *Pommereulla cornucopiæ* L.f., the binomial nomenclature reflecting the peculiarity of Mme Dugage's situation as

<sup>&</sup>lt;sup>14</sup> "Nota de Du Gage de Pommereul en la que agradece a Casimiro Gómez Ortega el envío que ha echo," Archivo del Real Jardín Botánico RJB01/0020/0002/0022. We are most indebted to Marc Philippe (Univ. Lyon 1) who graciously communicated the existence of this letter and its transcription.

a lone female botanist. Naezén's thesis was eventually republished in the series of the Amænitates, which would ensure forever the recognition of her botanical work in the Linnaean archives. Finally, her repute was confirmed when, in the 1781 Supplement (Suppl. Pl) that Linnaeus the Younger added to his father's seminal works, the new genus Pommereulla (Pommereulla cornucopiæ L. f., Suppl. Pl. 105. 1782) appeared to preserve the "memory of the very famous Mme Dugage de Pommereul, who worked on the study of grasses with relentless resolve" (Naezén, 1779: 13). Linnaeus was a proponent of populating the realm of plants with monuments erected to the memory of past and contemporary botanists. Having a plant named after oneself was the ultimate and the only long lasting recognition that could save a lifetime of work from total oblivion. Such was the case with Mme Dugage. Linnaeus the Younger's homage brought her short career to its acme.

Induction was therefore complete. It showed it was possible for an amateur, and here an "amatrice," to alter the history of botany. As early as March 1779, even before Naezén defended his dissertation, the word of Mme

#### THE DEMISE OF MME DUGAGE

Her relentless work deeply affected Mme Dugage's health. As far away as Peru, Dombey worried about her well-being and wished that "her labor would not affect her health, or at least that the glory resulting from her work would warm up her heart and pour a salutary balm into her blood" (AJ/15/511 AN). Unfortunately, Mme Dugage's health had by then considerably worsened and prevented her from working on her projects. While Thouin saluted Dombey's initiative, he warned him that she may not be able to complete her endeavors:

"The beautiful genus that you dedicated to Mme Dugage was righfully presented to her. She is without contradiction a woman of the rarest merit but whose health is so poor that I do not believe that she will be able to complete her projects. You are well aware, Sir, that she has a cancer in her left breast; since your departure, it has grown so much that we thought that we would lose her at any time. The physicians had given up on her, and she believed she was helpless. Then came an old wife who promised to cure her. Mme Dugage yielded herself to her; she applied treatment with honey and cream for several months after which she can see a positive change so striking that she continues this simple remedy from which we hope her full recovery to everyone's astonishment" (Ms 2625 BCMNHN).

Madame Dugage desperately tried to find a cure or, at least, ways to abate the crucifying pains of her disease. She even volunteered for an experiment with the innovative use of magnets proposed by the abbé Le Noble, whose observations would be published in the first volume of the Memoirs of the Royal Society of Medicine. In her zeal to contribute to the advancement of medical science, Mme Dugage let him test magnetism on her body. However, despite her goodwill and her faith in modern medicine, her

Dugage's induction was disseminated in the community of botany practitioners. One of them, the abbé Jean-Baptiste Cotton Deshoussayes, a dedicated amateur botanist, wrote to the son of the great man and seized on the opportunity to insinuate himself in the epistolary exchange of Linnaeus the Younger with his French counterparts: "He will also have the option of mailing your reply to the illustrious Mme du gage de Pommereul, whom I will declare women solely by her sex, and a man, and even a man made famous by his genius and the scope and the variety of his science" (Cotton Deshoussayes, 1779: 105). Vain ambition, for Linnaeus the Younger wrote to Thouin that he would not collect anything for Cotton (Letter received on 15 December 1779, Ms 2081 BCMNHN). After the Supplement publication, and now that Mme Dugage had been recognized by the ultimate authority, all nomenclature repertory would list the Pommeruella and mention the filiation (Sonnini, 1801: 375-376; Théis, 1801: 379; Briquet, 1804: 130). After the Linnean homage, publication of Mme Dugage's work was greatly anticipated. A publication still presented it as a work in progress in July 1783 (Journal de medicine, 1783: 493).

disease kept growing and spreading. Pains in her breast, rheumatism, and stomachache compelled her to wear magnetized metal plates on a daily basis, causing even more damage (Andry and Thouret, 1782: 73). "The necessary application of a large number of plasters and poultices for another very serious disease did not allow continuous usage. Plates were always rusted and the contact with bruised skin was very painful" (Andry and Thouret, 1782: 74). Sick and in pain, Mme Dugage sought in a change of climate the relief that medecine had so far denied her. In the subsequent years, she went to the French Riviera, to Hyères, in the company of her old friend Lohier de La Saudraye. Coincidentally, we know of her last days through the testimony of her fellow travellers, the ailing academician Thomas, who sejourned with his sister first in Hyères, then in Forcalquier in the castel of Fougères between October 1781 and May 1782 (Oudot de Dainville, 1926: 57). Thomas's friend, Barthe, was introduced to Mme Dugage in the spring of 1782:

"Mr. de La Saudraye and Mme Du Gage came to join us from Hyères. They both live with us but one is here to suffer, the other to give her all the care that the most tender friendship allows. This unfortunate lady is in a terrible state; she does not digest anything; she can barely stand; the condition in which you saw her was healthy compared with what it is now. Her friend is much altered and very thin. Night watches, worries, and the signs of pain are killing him. Both deserve our empathy, and one cannot see them without feeling the most tender compassion" (Henriet, 1932: 291).

Mme Dugage soon passed away in Forcalquier on 3 July 1782 (Archives of the Alpes de Haute-Provence, Forcalquier 1776-1792, 1MI5/0371, 121). Thomas described his sorrow at witnessing her passing, especially as it occurred so soon after his own mother's death:

"I delay, my friend, for the longest I can the time when I must talk to you about the purchases you were kind enough to make for Mr. De La Saudraye and Mme du Gage. Alas! this wretched woman is no more. She was dead and in the grave even before the mule driver arrived from Marseille. I saw this terrible spectacle, in our very house, and next to me. The very morning of the day or rather the night when she died, Mr. de La Saudraye was gay and serene; he was far from suspecting so imminent an end. For nine years, he saw her sick, and he grew used to her condition. Death put an end to his illusions in a cruel way. This event occurred three days after you announced the death of my mother. It seems that I saw her dying for the second time" (Henriet, 1932: 295).

At the current stage of our research, we do not know if Mme Dugage was able to complete her work. If probably her cancer forced her to interrupt her activities, then all traces of her life and work were also gradually dispersed or omitted, and sparse mentions gave a distorted depiction of both her and her work.

### PALIMPSESTIC BOTANY

For Elisabeth Dugage, all was not rosy in the 18th century despite her numerous mentors. Even though she worked under the protection of Buffon, Jussieu, and Thouin, other botanists could not help expressing their surprise at learning her gender. The shock created by such an incongruity, a woman who worked almost officially at the Royal Botanical Garden in Paris, in the close vicinity of the great scholars, led to some curious and revealing reactions among her male mentors. Linnaeus the Younger first took her for a man; then, when enlightened, he could not refrain from inquiring about her marital status in the following letter he wrote to Thouin: Was she a widow? Was she married? he asked (20 February 1780, Ms 2018 BCMNHN). Needless to say that such a question did not usually arise in letters between men. A. Gouan, member of the venerable medical school of Montpellier, hailed Mme Dugage as the "patron of grasses" (4 October 1778, Ms 1987/536 BCMHN) and gave her credit for her botanical knowledge. He nevertheless coated his query about a grass with ironic traits regarding women and their taste for cuteness. Even more telling of the then prevalent bias against women in science is the reaction of the anonymous translator in charge of translating the letters of Linnaeus the Younger into French. Correspondences were at the time mostly conducted in Latin, a lingua franca for all European scientists, and André Thouin needed the assistance of a translator for letters sent from and addressed to foreign correspondents who could not speak French. Where Linnaeus the Younger wrote "agrostagrapha" which means "writer on grasses," or "expert in grasses," a laudatory title he granted Mme Dugage, the translator took upon himself to diminish her skills by using the word "amatrice" or, in other words, "lover" of botany (20 February 1780, Ms 2081 BCMNHN). Through this less than anodyne correction, the translator excluded her from established professional circles. Mme Dugage's peripheral status, in the margins yet in close contact with the great naturalists of the Botanical Garden, aroused curiosity, incredulity, and eventually, suspicion. After the death of her direct contemporaries, Mme Dugage's name disappeared from all accounts of the Jardin du Roi. Even among those who knew her, some chose not to acknowledge her presence, especially those who held official positions at the Museum. For instance, we have been unable to find her name in any of Antoine-Laurent de Jussieu's writings.

Although there does exist a rare mention in contrast with Jussieu's silence. In 1792, in the fourth volume of the Encyclopédie méthodique, Jean Verdier (1735-1820), a collaborator, recalled the modest beginnings of the Botany School in the Jardin du Roi and listed all the people who took part in its success. He attributed the development of botany to the three Jussieu, Antoine-Laurent, Bernard, and Joseph; to Le Monnier professor of botany; André Thouin; and Mme Dugage, whom he posthumously honored with the following words: "a lady Du Gage, more learned than many academicians [who] worked for years at the Botanical Garden at sorting out the large family of grasses" (Verdier, 1792: 75). Verdier's account did not have any bearing on the history of science. Neither a member of the Museum nor of the Academy of Science, he was what we would now call an independent scholar, an outsider who would eventually be excluded from historiographical works on institutionalized science. Verdier directed a school in the Hotel de Magny, located next to the Botanical Garden, on the rue Seine-Saint-Victor. He might have known Mme Dugage personally for he published his sole botanical treatise in 1778, Introduction à la connoissance des plantes, when Mme Dugage was at the height of her activities in the Jardin du Roi. His jab at academicians seems to indicate a feeling of bitterness toward members of the institutions, some of whom were in his mind less competent than female autodidacts. His hostility may originate in the long and unsuccessful litigation he had with Buffon who had set his eyes on the building of the Hotel de Magny and had him expropriated.

In the 19th and 20th centuries, two interrelated processes of programmed oblivion were at work: first, the dispersion, immediate, or postponed loss of direct evidence; for instance, unsigned handwritten documents or signed by non-famous writers are bound to disappear from institutional conservatories. Second, when the *Jardin du Roi* morphed into a modern institution, and took up the new name of Museum, it also undertook a cleansing of its collections, presumably because members disavowed old regime modes of scientificity. Documents that did not fit into the overarching narrative of the Museum were deemed superfluous and some were discarded. While the Museum glorified the great names of its past and present, letters by lesser contributors were sold on the private autograph market, anonymously and in bulk. Both phenomena are

intertwined, in the sense that the fewer archival documents remain, the less likely the author will be mentioned and therefore given recognition in historiographical works. Of course, other incidences such as wars or natural disasters also account for the destruction of primary sources. However, historiographical collections always result from implicit or explicit choice of preservation, an underlying strategy, which aims at shaping the memory of past events.

We do know from a late 18th-century list of correspondents that regularly communicated with the Jardin du Roi that the collections had 8 letters that Mme Dugage wrote to the administration ("Liste des Correspondans du Muséum d'Histoire naturelle," Ms 2310, 23 BCMNHN). These letters have disappeared. The search for them is made all the more difficult since catalogues of autographed letters do not list names of lesser contributors. Even if a letter is preserved for the reason that it is addressed to a great naturalist, chances are that the catalogue description will not list Mme Dugage by name. While it is still relatively easy to find letters penned by well-known figures of botany in the 18th century, it is a more arduous task to locate their passive correspondence. Conservators and librarians stripped Mme Dugage of her very own existence by putting her memorabilia in the dustbins of the history of science. On the other hand, what has been preserved and recovered does not fail to intrigue. What will emerge from this wreckage is a fragmentary picture, or should we say a puzzle in need of completion, of past and current prejudices in the representations of women of science.

Interestingly enough, the only Mme Dugage's letters that have been deemed worthy enough of publication are all addressed to Antoine-Laurent de Jussieu, and it is only in relation to him and his career that the letters hold value according to the author Joseph Laissus in his 1964 article. The interest that J. Laissus found in this correspondence is chiefly a matter of feminine writing and an occasion to provide a few details of the life of the great botanist. In an article focused on Antoine-Laurent de Jussieu, J. Laissus reproduced Mme Dugage's letters that he found "naïve," moving ("touchante"), and even childish ("puérile") (J. Laissus, 1964: 35). He entitled his article "Antoine-Laurent de Jussieu 'l'aimable professeur,'" using an expression that he borrowed from Mme Dugage. Nevertheless, withdrawn from its context, the expression seems to imply a gallant conversation between the two correspondents. Besides, when commenting on a letter in which Mme Dugage requested to consult several herbaria, the historian suggests that Mme Dugage borrowed botanical treatises only as a pretext to converse with Jussieu (J. Laissus, 1964: 34). Implicitly, because of its insistence on seductive undertones, J. Laissus's article depicts Mme Dugage as a woman who confused her love for botany with her alleged love for the botanist.

The bias that is manifest in J. Laissus's representation of Mme Dugage is not entirely of his own making. The 19th century construed a seductive feminine figure neatly summarized in the appellation "marquise." In the few documents where she is mentioned, Mme Dugage is described as a "marquise," which she was not, who hosted a "salon," where young men aspiring to pursue a career in the natural sciences were welcome. Using the word "salon" is not insignificant. It conjures visions of polite conversations, in an elegant aristocratic setting that provided networking opportunities to socially challenged scientists.

In 1835, René Baron Desgenettes (1762-1837), who made a name for himself as a military doctor in Napoleon's armies, wrote his memoirs in which he recalled his beginnings. The first contact this young provincial had in Paris was Mme Dugage, a family connection. Astonished, he recalled that she lived alone with only one female servant, in a garret at the Botanical Garden of Paris. Thanks to Mme Dugage, Desgenettes was fortunate enough to meet Buffon, an encounter that he retold with flourish. In his fictitious dialogue between Buffon and Mme Dugage, the great naturalist irreverently called her "my pretty lady" ("ma belle dame"), and let her kiss him (Desgenettes, 1835–1836: 49). As told, the anecdote reasserts the implicit libertine innuendo in which J. Laissus would indulge while interpreting her correspondence with Jussieu. For Desgenettes, women could not lead a scientific trajectory of their own: they ought to provide some sort of social glue to men gravitating around them. Not surprisingly, he did not give any detail on Mme Dugage's botanical activities in his memoirs. The same tradition of misogynistic historiography continues into the first part of the 20th century. One hundred years later, in 1935, identical equivocal connotations again permeate Delaunay's account of Mme Dugage. In his history of medical life from the 16th to the 18th century, Paul Delaunay embellished the few details provided by Desgenettes. He relegated Mme Dugage to the chapter "social life," and credited her with conducting a scientific salon while remaining mute about her botanical pursuits. Again, she is called "marquise." Without the slightest evidence, historians chose only to portray Mme Dugage as an aristocrat, prone to engage in frivolous conversations and expert in sociability; but failed to integrate into their narratives the "lonely grass eater" (J. Laissus, 1964: 33) she called herself in her letter to Jussieu. As evident from the examples cited from Laissus and Delaunay, 19thcentury and 20th-century historians felt the urge to recast Mme Dugage's identity from its original incarnation. The singularity of her situation, a woman, alone in the Jardin du Roi, working on herbaria, had to be amended and transformed into a conventional portrait.

The growing uneasiness about her being a woman is gradually made manifest in passing mentions that can be found in brief accounts of botanists all through the 19th century. First mentioned in relation to the Botanical Garden, chroniclers and journalists tended to confine her to the narrower field of "women botanists" as opposed to the nongendered group of "botanists." As early as 1810, Mouton-Fontenille, while giving an overview of the history of botany, listed together the women who gained notoriety in this field, a group that included Maria Sybilla Mérian, Linnaeus' daughter, Mme de Genlis, etc. (Mouton-Fontenille, 1819: 67). True, Mouton-Fontenille had only praise for them, but he restricted women to a category distinct from the mainstream and official history of science. The same perspective was shared by Antoine Laurent Apollinaire Fée who in 1827 devoted a short paragraph to the plants named in honor of women (Fée, 1827: 173) before delving into more general matters.

Despite the aforementioned passing mentions, deliberate silence more often precluded acknowledgement of Mme Dugage's contributions to botany. Antoine-Laurent de Jussieu, who relied on her assistance when she worked on grasses, failed to mention her even once in the detailed history of the Natural History Museum, which was published in six installments in the Annals of the Museum between 1802 and 1810, where he recounted a detailed history of the Garden from its origin to 1788, when Buffon passed away. Jussieu's silence was not broken in subsequent historical accounts of the Museum, and so by his omissions, he had effectively banished her from the official history of science. Joseph-Philippe-François Deleuze and Ernest-Théodore Hamy, both members of the Museum, would follow in Jussieu's footsteps. Deleuze wrote a 700-page Histoire et Description du Muséum royal d'histoire naturelle in 1823. He had presumably direct access to early sources, some of which have disappeared. Ernest-Théodore Hamy (1842-1907), a French ethnologist and anthropologist, also known for his history of the Natural History Museum, published in 1893 a very informed description of the last years of the Old Regime Jardin du Roi. His book, which was bound to be referenced in all later works, remained silent on Mme Dugage even though he knew of her existence and work, after having edited Joseph Dombey's correspondence that contained numerous references to Mme Dugage (Hamy, 1905: xiv, 8, 257, 268). Her name is not even mentioned in a footnote: her projects, the singularity of her situation did not raise the historian's curiosity.

Misogynistic bias did not stop in 1900. On the contrary, it continued to be prevalent into the 20th century. None of the bibliographical works make any mention of Mme Dugage even though she appears in the letters of Thouin, Dombey, Desfontaines, and Gouan. She is absent from Louis Crestois's 1953 study of the teachings and teachers of botany at the Museum of Natural History of Paris. Neither does A. Davy de Virville's sweeping synthesis of three centuries of botany in France make any reference to Mme Dugage. A legacy of biased history keeps infecting current research that otherwise would not be suspected of voluntarily misogyny as exemplified in Yves Laissus's classic examination of the teaching of sciences at the Jardin du Roi first published in 1964 and reprinted in 1986. Arthur Robert Steele, author of Flowers for the King: the expedition of Ruiz and Pavon and the Flora of Peru, quotes Dombey's letters where Mme Dugage appears but does not provide any salient information other than "feminine amateur" (Steele, 1986: 80 and 131). She is absent from Emma Spary's seminal study entitled Utopia's Garden: French Natural History from Old Regime to Revolution who nevertheless argued that the distinction between "the canon of 'scientific' botanists" and the "botanizing fad" is "hard to sustain in a botanical culture in which private and royal systems of plant introduction and exchange

were interdependent" (Spary, 2000: 61–62). Neither does Elisabeth Dugage appear in the recent *Dictionnaire des Femmes des Lumières* (Krief and André, 2015). However, the most revealing example of omission may lie with Yvonne Letouzey's 1989 monography on André Thouin, the head gardener and protector of Mme Dugage. Even though Letouzey extensively quoted Thouin's letters– her study gives access to many unpublished Thouin's manuscripts– she systematically expurgated sentences and passages related to our woman botanist from Thouin's letters (see Letouzey, 1989: 133–136 and 152–153). The list of current works without any reference to Mme Dugage is endless. In sum, whether historians have re-checked their sources or whether they have based their research on previous works, they have invariably blindly accepted the legacy.

Evaluating scientific activities of women in 18th-century France differs from quantifying their presence in academies, royal societies, or their publications, as Natalie Zemon Davis and Arlette Farge warned in the 3rd volume of their history of western women (Davis and Farge, 1992: 6). What could be more pointless since women could not aspire to any position, nor gain the protection of their elders, nor attend university? Studying the scientific works of women therefore requires us to rid ourselves of the historical paradigms of masculine history and reconsider prejudices toward women and amateurs. It demands that we re-think the abyss commonly accepted between institutionalized science and the private or semi-private practice of sciences. Finally, researchers ought to reflect upon the hermeneutic screen that previous historians handed over to them all too liberally. As evidenced with Mme Dugage's case study, discourses presented distorted perceptions of her by depicting her as a marguise, hosting a salon, kissing Buffon, and longing after Jussieu. Even the most illustrious French women scientist of the Enlightenment did not avoid repeated attempts by historians to erase her, remarked Judith P. Zinsser and Julie Candler Hayes about Mme Du Châtelet whose "major works have been attributed to men, other writings have been ignored or belittled, and her entire life has been reconfigured so as to minimize her intellect and to dramatize her sexuality" (Zinsser and Hayes, 2006: 6). Suffering a fate similar to Mme Du Châtelet, Mme Dugage's femininity has been distorted to exclude her from the realm of 'real' science and to mask her scientific accomplishments. Moreover, unlike Mme Du Châtelet who was wealthy enough and well connected, and who published several works on Newton, Mme Dugage never crossed the publication threshold. In her case, silence prevailed. Her contributions, however small they might have been deemed, have been buried under a thick layer of omissions. In her study of women practitioners of botany, Ann B. Shteir examines how the gradual professionalization of plant science in 19th-century England was achieved at the expense of women. Mme Dugage's example demonstrates that an identical phenomenon happened in France when the Natural History Museum re-wrote the history of its previous incarnation, the Jardin du Roi, and erased markers of Old Regime polite science by excluding amateurs and women. Sarah Hutton laments

that: "it is an unavoidable fact that the names of only a handful of women grace the annals of the history of science. Even when celebrating those distinguished female names who have come to historical notice, there is no escaping the fact that a Madame Du Châtelet here, or an Ada Lovelace there, are exceptions that prove the lamentable rule that very few women have achieved recognition for their scientific endeavors" (Hutton, 2001: 18). Yet, it was even worse. How can women get recognition when their contributions have been materially destroyed? Mockery and sarcasm as well as imputation to male friends or mentors might have undermined any basis for recognition; moreover, physical elimination of evidence also happened and still occurs nowadays. While gender-aware scholars are working on including women and lesser contributors, other forces, much more general and more forceful, tend to obliterate women from historiographical accounts of the past, in an attempt to shape memory and identity. It is therefore up to us to interrogate silence in the hope of regaining the stolen past.

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