



Benjamin Franklin:

Statesman-Scientist & The Father of Scientific Statecraft

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“When you look at all instruments of statecraft and how that's pulled together, I think the ambassadors are uniquely poised.”~ Henry Crumpton

In the spring of 1785,² seven and a half years after his diplomatic mission to France began, Benjamin Franklin left France for the last time. Plagued by a furious gout attack, the voyage would have begun in utter agony had Marie Antoinette not sent her personal sedan chair³ to ferry him to the ship that would carry him back to America.⁴ And so Franklin, the first American Diplomat and Ambassador Plenipotentiary⁵, left his French home in Passy to return to the newly conceived, egalitarian nation he had helped midwife, transported in the grandeur and comfort of the royal carriage.

It can be argued that diplomatic success is heavily dependent on the negotiating skills of the diplomat, augmented by, *inter alia*, one part preparation, one part cunning and one part communication skills – or rather the ability to manipulate the art of dialogue to the benefit of one's mother country. Yet, there must certainly be more to the equation. For, while the huge financial aid bequeathed to the nascent country by the French (estimated to be about 1.3 billion dollars in today's currency) bankrupted the Bourbon throne and resulted in the beheading of its monarchs, the amity and regard afforded to Franklin, agent provocateur of the French foreign aid policy, remained untarnished. (On news of Franklin's death in 1790, the National Assembly went into mourning for three days, according to his biographer Claude-Anne Lopez, making it “the first political body in the world to pay homage to a citizen from another land”).

One can also claim that the French diplomatic success was not entirely due to Franklin – who was part of a team,⁶ composed of Silas Deane, a lawyer from Connecticut (and former teacher) who had sojourned in France for a time prior to Franklin's arrival, Arthur Lee, a lawyer

from Virginia possessed of Southern courtliness and charm (and Massachusetts agent to London), who was educated abroad and had a medical degree from the University of Edinburgh, and John Adams, a lawyer from Massachusetts (and erudite scholar), who was well prepared for his mission and possessed of at least a measure of legal, if not political, cunning. Yet, Deane was a failure⁷ in securing more than emergency aid for the colonies,⁸ while Lee's failures accrued from multiple defects of personality⁹. As for the third member of the entourage, one can hardly imagine the puritanical John Adams¹⁰ cozing up to Marie Antoinette at the gaming tables at Versailles,¹¹ (where Benjamin Franklin occasionally happened upon her¹²) whispering sweet entreaties for ships and cannons. Nor can one conceive of Abigail Adams frolicking with the Queen in muslin aprons on the lawns of the *Petit Trianon* or engaging in witty political repartee over a game of whist.¹³ Considering their superior French linguistic skills compared to those of Old Ben,¹⁴ the Adams' lack of conviviality with the French (whom they did admire) hardly explains their diplomatic failures as emissaries to that nation.

Certainly the personality and temperament of Franklin was a perfect complement to the country he was sent to lobby.¹⁵ The very vices for which he was criticized by opponents at home: a delight in wine and wit, a fondness for females and food, and an appreciation for intrigue, smoothed his entry into the highest echelons of French society where the site for merry-making, the monarchs' bedrooms at Versailles, were also used as a venue for policy-making.

Yet even with this predilection for success, Franklin's accomplishments¹⁶ in the years he was posted to Paris were nothing short of extraordinary. Not a young man on his arrival and plagued with a slew of medical ailments that would have hamstrung a man far younger than his 70 years, Franklin's achievements, which included a fair degree of partying and posing with the pretties, were remarkable. These enabling traits and talents are often told commensurate with his achievements on French soil as Ambassador/ Diplomat/ Minister Plenipotentiary, (a title bestowed on him by Congress in 1779.) Yet, his French diplomatic stint is portrayed as if he were dropped down from diplomatic heaven, fully formed, flawed yet avoiding even the slightest diplomatic faux-pas, sartorially inclined, yet carefully calculating in conceiving an artifice of dress that precisely conjured the French vision of the "true American." It is as if from the moment he set foot on French soil on one dreary storm-tossed December day in 1776, every moment was used to precise purpose. For this to have happened, huge amounts of preparation must have preceded his arrival.

The question that emerges is how did he know just what the French would have conjured? Unaided by the internet, a State Department with a Protocol Office, or a national intelligence network, one should wonder just how did Franklin know how to behave, what image to convey,¹⁷ and what tone to take?

Silas Deane was posted to French soil for six months before Benjamin Franklin arrived, and only with the help of Franklin's scientific contacts was he granted an audience with a representative of the French King, securing no official recognition in the process. Yet Franklin's disembarkation in Auray (Brittany) on that dark December day preceded his being received by Charles Gravier, Comte de Vergennes, the French foreign minister at Versailles by merely weeks

-- and just days¹⁸ after Franklin set foot in Paris on December 21.¹⁹ From then on, Franklin was on a roll.

So, the question is: just how did he do it? What magical connections did Franklin have that enabled him instant reception, acceptance, trust and credibility – just how did this Philadelphia Yankee gain instant recognition in the Bourbon Court?

Before It all Began:

If Franklin, regarded in Europe as the most famous American of his day,²⁰ had expected to be met with a large welcoming party on his disembarkation on French soil in 1776²¹, surely, he must have been disappointed. The cache of letters heralding his arrival were sitting somewhere on the Atlantic Ocean floor; the ship carrying them having met with the all too-common hazard of sinking en route. Alone, but for his two grandsons who accompanied him²² and the administrative skills that enabled him to initiate the first library, institute and fund the first public hospital and orchestrate an efficient inter-colonial postal system in his native and nascent country, Franklin's first activity upon setting foot upon on terra firma was to alert the absent (and inattentive) Deane of his arrival and prod him to secure acceptable lodgings for Franklin²³ and *famille*.²⁴ In this venture, Franklin enlists the help of an old friend and admirer via land-post, and shortly thereafter we find Franklin and grandsons safely and securely ensconced in suitable dwellings in Paris. Again, the wherewithal of having such loyal, devoted and capable contacts ready and willing to be of immediate assistance must be examined.

It may come as no surprise that his diplomatic mission did not represent Benjamin Franklin's introduction to France or the French political system. Indeed, nearly a decade earlier he had not only visited the country, but had been presented to Louis XVI's grandfather (the then reigning Louis XV) at Versailles. There and then, dressed in prescribed court fashion complete with elaborate wig and satin breeches, (which he now jettisoned in favor of the more authentically American "Davy-Crocket" manner of dress -- including fur cap -- delighting his French audience²⁵,) Franklin witnessed first-hand the precisely orchestrated etiquette expected at Versailles and formed his impressions of life at the Court of the Bourbon Kings. He had no need to read the exposes of Jefferson and Adams detailing the punctilious requirements of court dress, (and – at least for Adams - chagrin at falling short,) nor waste his time deciding how to accommodate these time-consuming, labor intensive and costly ministrations when he began his diplomatic role. Presumably, Franklin had envisioned the precise image he thought would be most impressionable long before arriving to carry out his diplomatic mission, bringing the martin cap he would wear as part of his fashion-persona along with him.

Well-known as a wealthy publisher, successful printer, local civic leader, postmaster general, agent of Colonial America to the Court of St. James, and loyal subject of King George of England, it was the dissemination of his folksy wit and homespun wisdom through his alias, Poor Richard, which won Franklin a following back home. Yet, while regarded as the most famous American of the time, this fact alone does not explain how in 1767, a so-called savage²⁶ was able to secure an audience with the illustrious French King, being well-received by the most powerful monarch in Continental Europe. One can only surmise that at the time his French was

far from practiced and his knowledge of court manners superficial. Who, then, was his tutor and mentor? Who secured the introduction? And why was Louis XV so interested in meeting an ‘uncivilized’ American?

The answers to these questions begins a score of years earlier with an innocent letter to Peter Collinson of the Royal Society of London, written by a bright, but mostly self-taught Philadelphia printer who had failed arithmetic twice as a young lad at the Boston Latin School. The letter contained a request for certain experimental equipment and paraphernalia to enable the intellectually curious writer of folk wisdom to conduct experiments in the nature of electricity.

The Beginnings of Scientific Statecraft

By 1746 Franklin, (newly retired from his printing business as a young and fairly wealthy 40 year old) was free to develop his budding scientific endeavors. In this regard, he had adopted the Baconian system of natural philosophy²⁷, the precursor to modern experimental science,²⁸ and had proven – by reliable (reproducible) scientific study -- various properties pertaining to electricity. His carefully written-up experiments and their results were sent to Collinson to review, and due to Collinson’s efforts, Franklin was ultimately inducted into the Royal Society of London and acclaimed as a scientist of distinction. This honor became the springboard that launched his sensational diplomatic successes.

Franklin’s scientific writings (albeit, not his honorifics nor bone fides) long preceded his foray into England as an agent of the American Colonies, and his correspondence with his co-members of the scientific community served him in good stead on his arrival. The nature of the experiments, often derided at home, were considered of enormous scientific importance in Europe, called by none other than Joseph Priestly “the most famous scientific experiment since Sir Isaac Newton.” Even without any immediate practical use, (although the question of whether the use of lightening to kill turkeys resulted in more tender meat was duly considered, and rejected only after the experiment nearly resulted in Franklin’s death), its theoretical implications were applauded, and then sensationalized by the famous kite experiments. These in turn provided the technological basis for an invention of major social utility: the lightning rod. Indeed, the scientific and technological world would be greatly indebted to Dr. Franklin.

While his outgoing personality and membership in other elite fraternal organizations, such as the Free Masons, furnished a network, it was this preeminence in science that furnished the platform upon which he would secure the friendship and respect of those most influential and important in his diplomatic quest. And once in Britain, he studiously cultivated their friendship and advice. These allies, persons of repute, leaders of the Intellectual and scientific establishment of the time, would prove invaluable in assisting Franklin to execute his mission -- helping him secure the trust and alliance of France, herself, persuading its King and ministers to risk an uncertain peace with England and come to the aid of the nascent country across the Atlantic.

Peter Collinson

It appears that Franklin's first connection with the Royal Society of London was through one of its members, Peter Collinson, an English merchant, a Quaker, a botanist and frequent correspondent of Carl Linneaus²⁹. As early as 1730 Collinson saw the commercial value of exotic seeds and began importing flora from North America for use by European botanists. His connection with Franklin was probably pecuniary at first (as the purchasing agent for the Library Company of Philadelphia); a personal introduction likely came about in 1742 through Franklin's support of their mutual acquaintance, Philadelphia Botanist John Bartram,³⁰ deepening with Collinson's patronage of the fledgling American Philosophical Society, co-founded by Franklin in 1743.³¹ But it was because of the communication of Franklin's electrical experiments, (begun in 1476³² after Peter Collinson gifted the American Society with some experimental equipment), and the ensuing correspondence³³ throughout 1747 that Franklin's work *Experiments and Observations on Electricity*³⁴ was published by Collinson in 1751.³⁵ This began a rather circuitous state of affairs, culminating with Franklin's experiments being repeated in France, which ultimately brought Franklin back to the attention of the Royal Society of London.³⁶ Then, as Franklin says, "without my having made any application for that honour they chose me a member and voted that I should be excused the customary payments." They also conferred on him the prestigious Copley prize³⁷ in 1753.³⁸

The Royal Society of London

Membership in the Royal Society conferred on Franklin a standing unknown to any other American, nor even to most intellectuals of Europe, affording him entry into rarified and aristocratic Britain as well as serving as entry to members of the Enlightenment throughout Europe. Along with instant scientific credibility, induction into the Royal Society furnished the mechanism that would further broaden his contacts, introducing him to some of the great scientists of the day, such as William Watson (he who suggested the turkey experiment) and Henry Cavendish³⁹, the former, along with Peter Collinson would later nominate Franklin as a Fellow in that Academy in January of 1756,⁴⁰ culminating with his election as a member of the Council of that august institution in 1760,⁴¹ thereby cementing his scientific standing in London.⁴²

The French Scientific Community

Initially, Franklin's electrical experiments were ridiculed⁴³ not only in London⁴⁴ but in France, as well. There, thankfully for the sake of science, a copy of his initial work reached the hands of the noted philosopher Comte de Buffon, who had it translated into French as early as 1747.⁴⁵ (M. Dalibard, the translator, would himself later repeat Franklin's experiments.) The publication offended the Abbe Nollet, preceptor to the Royal Family, prodigious author and arbiter of the prevailing view of electricity. According to Franklin's own hand, "He [the Abbe] at first could not believe such a work came from America, and said it must have been done by his enemies in Paris to discriy his system. Afterward, having been assured there really was a Franklin of Philadelphia, which he had doubted, he wrote and published a volume of letters defending his theory and denying the veracity of my experiments, and of the positions deduced from them."⁴⁶

At first, thinking to respond, on reflection Franklin concluded that since his experiments were easily reproducible they should be left to speak for themselves. He decided he could make better use of his time pursuing additional experiments rather than engaging in cross-linguistic and cross-cultural debates which would come, at best, to naught. In any event, Franklin's cause was apprehended by a French friend, M. Jean-Baptiste le Roy⁴⁷, a member of the French Academy of Sciences, who had Franklin's works translated into Latin, German and Italian, eventually resulting in Franklin's thesis on electricity being universally embraced throughout Europe over that of the Abbe. The further experimental work presumably included the famous kite experiment of 1752 which provided the basis for his ultimate vindication. The supreme recognition of Franklin's work, however, came at the hands of two comparatively amateur scientists who became ardent admirers: the aforementioned M. Dalibard and M. de Lor; the latter having a lectureship in experimental philosophy and the necessary apparatus which enabled him to repeat what he called, "the Philadelphia Experiments," The excitement generated by these experiments was huge, resulting in King Louis XV, a scientific-hanger-on of sorts, himself, to request their being performed at court, whereupon the King promptly sent his compliments to Franklin, care of the Royal Academy of London.⁴⁸ Imagine the King's delight on learning, just a few years later, that the inimitable Dr. Franklin himself would be visiting the Court!

Comte du Buffon

The Comte de Buffon, Georges Louis Leclerc, regarded by some as the French naturalist most responsible for the rise of European interest in natural history during the eighteenth century, probably played one of the most significant roles in securing Franklin's prominence in the French scientific community, as well as providing powerful contacts in the French government. The Comte himself was most highly regarded in scientific circles, joining the French Academy of Sciences in 1734 at the age of 27,⁴⁹ and appointed as head of the Jardin du Roi at Marly five years later. This position and its associated prestige enabled him to convert the King's Garden into a scientific research center. Buffon's correspondences were widespread and included Voltaire; his translations prodigious and including the writings of Newton as well as Franklin, whose work he not only translated but later duplicated.⁵⁰ ⁵¹ (Buffon, along with others, experimentally confirmed Franklin's thesis that lightning was electrical.⁵²) In 1753 Buffon was inducted into the Academie Francaise,⁵³ garnering additional prominence that would later prove useful to Franklin as well. (The Buffon connection likely became even more important after the professional camaraderie between the two became personal, evidenced by letters from Buffon seeking Franklin's advice for kidney stones, an affliction that Buffon discovered was shared by the American.⁵⁴) Franklin reciprocated Buffon for all his efforts, nominating him for membership in the American Philosophical Society in 1768.⁵⁵

Among Buffon's contacts at court was the redoubtable Mme du Pompadour,⁵⁶ (who lobbied for Buffon's admission to the Academie,⁵⁷ and to whom she referred as her "pet."). No doubt Franklin would have enjoyed meeting her, but her death in 1764 predated Franklin's first visit. One can surmise, however, that she served as a subject of mutual interest and diverting conversation for the two scientists. More important, however, were Buffon's political contacts, contacts critical to the success of Franklin's diplomatic mission:

It is universally agreed that without the intervention and support of the French Foreign Minister, de Vergennes, the American Revolution could not have been financed and the reciprocity of diplomatic relations never accorded. However, Vergennes required support to convince the King to engage in this course of action. Here, Vergennes was accommodated by the backup of Comte Maurepas,⁵⁸ who functioned as Prime Minister until his death in 1781. By happenstance, Minister Maurepas was a patron and admirer of none other than Comte de Buffon,⁵⁹ who had performed key scientific work for Maurepas during the latter's tenure as Minister of the French Navy. Buffon also enjoyed the respect of Marie-Antoinette's brothers, the princes of Austria, and by implication had access to the Queen, herself,⁶⁰ possibly serving as Franklin's source of entrée to the Queen in 1778. Franklin, did in fact have occasion to meet and deal with Maurepas, and his view of Maurepas' intellectual gravity and importance appears far less than the view of the king, (Franklin calling Maurepas a "frivolous character,") yet acknowledging that it was Maurepas who influenced Vergennes to allow an unfettered free trade with the Colonies through M. Beaumarchais.⁶¹

Dr. John Pringle

Amongst Franklin's closest companions in the British Royal Society was Dr. Joseph Pringle, who became president of the society in 1772 and personal physician to King George III in 1774.⁶² Having studied physics before medicine, he was also a professor of Moral Philosophy at Edinburgh University and likely shared many interests with the omni-curious Franklin. Pringle was also enamored with botany, (which he predominantly learned while sitting on the toilet)⁶³ and this shared interest with co-Royal Society member Peter Collinson lead to his introduction to Franklin,⁶⁴ with whom he supped just about every Sunday night.⁶⁵

For Pringle, 1766 and 1767 were good years, his having just been afforded a baronetcy following his being named royal physician to the household of Queen Charlotte in 1761.⁶⁶ The summer of 1767 was opportune for travel, and, well-known throughout Europe (as well as well respected in France for negotiating a treaty with the Duc de Noailles making military hospitals safe-havens during war -- a concept which later became the model for the International Red Cross), France was an inviting locus to vacation. But, being a widower, a travel companion was needed.

Franklin was the perfect candidate.⁶⁷ An absentee husband and disinterested father at best, Franklin's year was hardly as wonderful. Plagued by political jealousies and scandals in London and beset with family problems back home, Franklin's coping mechanism was escape. He scheduled an interlude from his London pressures during August of 1767, writing to his wife that it was necessary "to preserve his health" and took up with Dr. John Pringle as his travelling buddy. This decision afforded Franklin the medical benefits of travelling with a physician, access to Sir John's French contacts and presumably provided some education and conversation in epidemiology⁶⁸ in during the course of their six week vacation^{69, 70}.

They left London on August 28. On their arrival in Paris the two were enraptured by the local thralls of the day. There Franklin took note of the fashions and fetishes of the aristocracy, which unbeknownst to him were to serve him in good stead on his return nine years later.

(Writing to the daughter of his landlady, Polly, a surrogate daughter of sorts, he expounded on the intricate instructions incident to the perfect application and placement of cheek rouge - basically the use of stenciled round cut-outs in which a red-coloring of choice was painted before the paper stencil was removed - to give a perfect spherical application.) His skills of observation, honed by years of scientific research, allowed him to note with approval the well-maintained streets of Paris (swept daily) and the pristine condition of the water supply, while he sated his sartorial inclination by taking advantage of fashionable French tailors and buying himself a new wig, which he wrote to Polly, “made him look twenty years younger.”

Pringle also served another function for Franklin. He acted as a cover. British historical accounts note Pringle’s voyage to France but omit any reference to Franklin, who apparently met with members of the French economic enlightenment and other political types while in France, meetings he preferred kept secret. But Pringle’s most important role was to facilitate Franklin’s introduction at Court. On Sunday, the 9th of September⁷¹ following their invitation to a *grand couvert* (public dinner) at Versailles, the two were received by the King and Queen, possibly at the suggestion of Durand, the French minister to London. Sir John was given prominence, being asked, at the request of the Queen to be situated so as to stand between herself and Mme. Victoire.⁷² Nevertheless, Franklin, too, was duly and well recognized and as he writes, the King “who is a handsome man and has a very lively look,” spoke to the two scientists graciously and with good humor.⁷³ The scene must have been etched in Franklin’s memory; he reports on the magnificence of the Palace, but was not too overwhelmed to miss its shabbily maintained condition or the Queen’s lack of *maquillage*.

Even now, almost a decade before he was to reappear as Emissary Plenipotentiary on behalf of the new-born America, Franklin was revered, feted as a celebrity. The reverence, however, was accorded for his scientific achievements; his renown being so great that electrical experimenters in France were known as *Franklinistes* a status which surely opened doors and facilitated introductions. Yet at least some of Franklin’s colleagues in France who would call themselves *Franklinistes* also evidence a high degree of personal regard for John Pringle⁷⁴ and it may well be that Franklin’s reception by the French scientific community⁷⁵ was facilitated by Sir John, who certainly introduced him to other European counterparts, including Dr. Jan Ingelhouz of the Netherlands.⁷⁶

The six week trip to France in the summer of 1767 was Franklin’s first preparatory on-site visit. Here he met Dalibard, his French translator, in person for the first time - likely through good graces of either Pringle or Buffon, along with a Dr. Barbeau-Dubourg who was to play a prime role in Franklin’s future success. (It appears based on a letter dated June 14, 1768 that Dalibard introduces both Pringle and Franklin to Barbeau-Dubourg). Franklin’s second trip to France was to come two years later in July and August of 1769, when Franklin cultivates his association with M. Dalibard,⁷⁷ and presumably Dalibard’s admirer, King Louis XV.⁷⁸

Joseph Priestly

As Franklin’s experiments in electricity gained greater prominence, his sphere of scientific contacts, colleagues and followers grew. One of his devoted followers was a young

clergyman, educator, political theorist, and philosopher whose later achievements would include the discovery of oxygen, - and various other chemical compounds -- the invention of soda water, co-founding of the Unitarian Church in England and ultimately moving to the United States and becoming an American patriot: a young man named Joseph Priestly. Priestley hoped to write a history of the scientific study of electricity, and sought out Franklin as one of the leading authorities on the subject. Born near Leeds in 1733, (which made him 19 years Ben Franklin's junior) Priestly had studied Latin, Greek and Hebrew as a lad and later taught himself French, Italian, German, Chaldean, Assyrian and Arabic, but his scientific training was minimal. Nevertheless, by 1766, the prodigious Priestley had met Franklin⁷⁹, discovered the Law of Inverse Squares, (i.e. that the attraction or repulsion between two electric charges is inversely proportional to the square of the distance between them,) and was elected a Fellow of the Royal Society.⁸⁰ By 1767 Priestly had written the 700-page *The History and Present State of Electricity*, published to positive reviews,^[32] which detailed a history of the study of electricity to 1766 including writing up for the first time the famous kite experiment conducted by Franklin in Philadelphia on June 15, 1752⁸¹, and discussing Franklin's successful extraction of sparks from a cloud.⁸² The two men began a friendship and an exchange of ideas that would continue until Franklin's death in 1790,⁸³ during which time Franklin offered letters of encouragement, aided Priestley's advancement, supported his Fellowship in the Royal Society, and offered a recommendation for a Copley Medal for Priestley. In exchange, perhaps, Priestly called Franklin's experiments, the greatest, perhaps in the whole compass of philosophy since the time of Sir Isaac Newton. "⁸⁴ Priestley's book, his accolades of Franklin, and especially in his later position as President of London's Royal Society no doubt further increased the stature and prestige enjoyed by Franklin, widening his reputation even further, and setting an even grander stage for Franklin's return to Paris two years later. Certainly, it can be argued that Priestly supplied political information to Franklin, especially during 1771 when Franklin began a set of travels throughout England, sojourning for a time with the Priestly's in Leeds. Franklin's affiliation with Priestley also flowered into French territory, sprouting yet another French branch with the inclusion into Franklin's international scientific coterie of the French scientist Lavoisier, whose work launched off and complemented Priestley's. While the affiliation with Priestley may not have furthered Franklin's political or diplomatic standing in France, the acquaintance with Antoine Lavoisier ripened a few years later when Franklin and Lavoisier were commissioned by the French Royal Academy to investigate – and expose the junk scientist of the day – Franz Mesmer, at the behest of King Louis XVI.

Induction into the Paris Academy of Sciences

A year after Franklin's 1771 visit to Priestly in Leeds and two years after his second visit to Paris, Franklin was elected to associate (foreign) membership in the Paris Academy of Sciences, an honor afforded to "the man who plucked lightning from the skies," the sobriquet afforded to Franklin by Turgot, the French minister of Finance. The nomination was made by none other than Louis XV himself⁸⁵, and Franklin's acceptance (written in English) dated November 16, 1772, formalizes his network of French scientific contacts, including the aforementioned M. Jean-Baptise Le Roy and Jacques Barbeau Dubourg.

Dr. Jacques Barbeau Dubourg

Between his first and second visits to France, in addition to Priestley's work which featured Franklin proudly, another tome surfaced which contained the most complete early edition of Franklin's scientific writings and was sure to further enhance his reputation. Its french translation "*Oeuvres de M. Franklin Traduites de l'Anglois sur le quatrieme édition, par M. Barbeau Dubourg*. Paris: Chez Quillau l'aîné, Esprit, et l'Auteur., was published in 1773, translated by Jacques Barbeau Dubourg, who was a leading philosopher, botanist and physician and one of Franklin's closest friends in France, having corresponded with him at least since 1768.⁸⁶ Based on the fourth English edition of Franklin's electrical experiments published by Collinson in 1769, this later volume has many additional letters by Dubourg, and contains Franklin's replies on such subjects as ventilation, the cause of common colds, magnetism and its relation to electricity.

The colinearity of scientific acquaintances Franklin is amassing in France and the tentacles his reputation continues to sprout surfaces in a letter from Dubourg, written in November 1773, addressed to Dr. Franklin as Deputy Postmaster general of North America. There, Dubourg, whose expertise extended to writing about medicinal uses of plants as well as moral philosophy (including politics), acknowledges receipt of various papers sent by Franklin, including work of Peter Collinson. This must have been a delight for Dubourg, a fellow botanist, to receive. Dubourg also advises Franklin that his works were being even more widely disseminated, now to the philosophical society of Rotterdam by the Holland ambassador and then to the royal society of Gottingen. So too, Dubourg tells Franklin that M. Dalibard is pleased with a mirror sent by Franklin, (this being the very same Dalibard who had originally translated Franklin's work and reproduced his experiments). Dubourg even proposes a method of dispatching return post that presumably will minimize duties and postal fees, that is by using the good offices of the Monseigneur le Duc de Aiguillon,⁸⁷ peer of France and Minister of State of the Court of Versailles!!

In addition to reporting on other scientific matters of mutual interest, Dubourg also reports to Franklin that his friend M. Jean-Baptiste Le Roy read a paper at a meeting of the Academy of Sciences on configurations of lightning rods which Le Roy would promise to pass on to Franklin himself, and then remarks about a machine created by the Marquis de Courtenvaux (another scientist who entertained Pringle and Franklin during his first trip to France). Then Dubourg concludes by asking Franklin to send his regards to M. Pringle!⁸⁸

It was this to this Dr. Dubourg that Franklin directs Silas Deane to meet on his arrival in France some six months prior to Franklin's, (along with M. Le Roy and Dr. Edward Bancroft),⁸⁹ and on December 4, 1776, it was to this Dr. Dubourg that Franklin -- dumped unceremoniously on the shores of Brittany -- first turns upon the inauspicious beginnings of his diplomatic assignment⁹⁰ for assistance in contacting the inopportunately unavailable or unresponsive Deane.

Dr. Edward Bancroft

At the time of Deane's arrival, Bancroft, a scientist, physician and expert on dyes and poisons, former student of Deane's and friend of Franklin, was living in London. Presumably because the Congressional Committees (who had sent Deane to Paris) were concerned that his preparation and skills for the job were less than optimal, they directed him to meet with various persons believed capable of assisting him.⁹¹ Franklin thought that Bancroft might prove an additional resource⁹² along with Dubourg and Le Roy. Deane found Le Roy to be of limited usefulness and after some initial meetings he played no further role in Deane's introduction into French politics. Bancroft, rushing to Paris to meet Deane on his arrival, on the other hand, had a far more involved, if insidious role: the Londoner turned out to be the most famous and important spy to work against the United States prior to the 20th century.⁹³

After spending one or two weeks with Deane, Bancroft hurried back to London where he and Deane had planned on speculating on the London Stock market, hoping to make a killing based on their advanced knowledge of military and technical developments. While in London, Bancroft also made a secret deal with William Eden, the British Under secretary of state in charge of its secret service, agreeing – for a not so small sum-- to spy on the American on behalf of the King. In October, Bancroft returned to France, acting as Deane's unofficial secretary and confidant and “feeding” Deane useless or false “disinformation”⁹⁴ supplied by the British government.⁹⁵ He would continue to play this role with Franklin as well, writing down the intelligence he garnered listening to Deane or Franklin and depositing it in a hollow tree in the Tuileries to be picked up every Tuesday evening after 9:30 pm by another British agent.

Dubourg, however, both had contacts at the French court and was supremely loyal to Franklin, if less than proficient or adept at managing his own financial affairs. Even prior to Deane and Franklin's arrival in 1776, Dubourg had been working to involve the French government in American affairs. In July of 1776, some scholars contend that he took Deane to see Vergennes, the French Foreign Minister at Versailles, where each explored the views of the other. Vergennes remarked he could hardly risk another war with Britain at the time, stating that before consideration of any definitive agreement the Colonies would have to declare their independence and present a formal proposal for alliance. Vergennes did advise, however, that he looked kindly on the American cause and encouraged commercial ventures relating to military and non-military supplies, although conceding he could not guarantee their safety in transport from pirates, privateers or the British navy. Shortly thereafter, the direct relationship that Deane had understood he had with Vergennes was intercepted by one M. Pierre-Augustin Caron de Beaumarchais, a sleazy character whom Dubourg had cautioned him against dealing with, and who, as early as 1775, had negotiated some secret deals with Arthur Lee, (promising- without authority- that the French would be able to supply the insurgents with any materials they needed, in return for which Lee guaranteed, also without authority – that the Colonists would fight for independence). Rushing back to seek assurances from Vergennes that Beaumarchais was trustworthy, assurances that he received, Deane thereupon promptly dumps Dubourg and continues to parlay procurement of equipment and supplies through Beaumarchais. Their agreement eventually was contractually secured, but Franklin was apparently never made aware of it,⁹⁶ at least not until it may have been revealed years later by Beaumarchais, himself.⁹⁷

The French Academy of Sciences

According to Capefigure, one historian with a bent of seeing Franklin in an unflattering light, Franklin, who had transferred from his Parisian hotel to the du Chaumont Hotel in Passy (which became his diplomatic retreat of sorts) a fairly short time after his arrival, and laid low (so as not to give cause to Vergennes and the rest of the ministers to complain of any rabble-rousing – but according to Capefigure this conduct was to cultivate an air of mystery) so except for visits to the Academy, where interspersed with reports on his scientific experiments, Franklin offered political insights, “solemn and sad” which would awaken the sympathies of those men of science and literature who were leaders of the 18th century.”⁹⁸

Marie Antoinette

Franklin’s introduction to Marie Antoinette was as auspicious as the beginning of his diplomatic mission was not. The meeting -- Franklin’s presentation to the Queen as a member of the scientific elite-- came in 1778, and augmented by Franklin’s ensuing contacts with her ⁹⁹ all but guaranteed both his acceptance at court and the ultimate success of his diplomatic mission. While the introduction for his inaugural visit¹⁰⁰ was predicated on his scientific stature, Franklin’s success at Court hinged on its predilection for titillating conversation on intriguing and au-courant topics, talents at which the scientific statesman excelled. Yet, Marie Antoinette’s personal regard for Franklin was premised on something far more significant -- although significantly less substantive – an interest in fashion¹⁰¹ and their shared desire to flout convention in dress. Whether Franklin could have known of Marie-Antoinette’s famous corset rebellion - a stint where she refused to don the prescribed bodily strictures, a practice for which she received much criticism at court and loud complaint on the streets of Paris – along with an expanded waistline, (reversing her habit only when she was stridently ordered to by the supreme authority of the day on the matter --her mother),¹⁰² or whether it was just Franklin’s shrewd psychological assessment of the tenor of the times, or his marketing savvy that prompted the unconventional garb that became known as “authentic” American, is unknown. The fact is that Marie Antoinette was taken with the elder gentlemen, (who at 72 was old enough to be her grandfather) favoring him with both her company and other court favors. These graces could hardly have been overlooked by the King’s ministers and certainly influenced the light in which Franklin was received in France.

It was on this tableau of connections and contrivances, with a scientific portfolio of international renown and a personal repute so great that even John Adams (no friend of Franklin, he) was forced to concede “Franklin’s reputation was more universal than that of Leibnitz or Newton, Frederick or Voltaire, and his character more beloved than all of them,”¹⁰³ that Benjamin Franklin sets foot on French turf in December, 1776 to begin the most important diplomatic assignment of his life and the life of the American republic. With this background, as at least one historian has stated “it cannot be doubted, ... that his years of scientific research proved to be of primary importance in his greatest political service to his country.”¹⁰⁴

Personal Note

It must be noted that some call Science the International Language of Diplomacy, the rancorous disputes that have emerged between scientists claiming priority of discovery notwithstanding. Nor is this contentious claim to intellectual property, ownership of idea or passionate advocacy of belief in a position a new phenomenon. Mechnikov in the 1800s frequently debated Ehrlich over the correct formulation for hemalogical immunity; Mechnikov saying it lay in red blood cells, Ehrlich in white, with the resolution that both were right, ultimately winning both the Nobel Prize (albeit in different years). A different kind of dispute was witness more recently between Gallo and a French counterpart, each claiming priority over the discovery of the HIV virus. The end result was that the conflict was resolved as a draw. The priority of discovery problem could have been one suffered by Franklin, the issue pertaining to who performed the actual kite experiment first, himself or D'Alibard. However, D'Alibard possessing sufficient humility, afforded all due honor of the discovery to Franklin. The issue of correct interpretation of experimental results was a far different matter; the abbe Nollet having one view, Franklin another. Only, however, due to the broad and far-reaching publication of Franklin's works, (literally papering Europe with it,) a feat accomplished through the efforts of Franklin's supporters, Buffon, Le Roy, Dubourg and Dalibard and Collinson, was Franklin able to drown out the dogmatic views of Nollet. But it was only on the death of the abbe that Louis XV felt comfortable enough to nominate Franklin to the French Academy, which would certainly have been regarded as an affront by Nollet, the Royal tutor to Louis' children, had he been alive.

It must be noted, that the truth (or validity) that Franklin's interpretations provided was hardly sufficient to conquer the outdated and erroneous phlogistanical theories of his rival. Only time, resources and powerful friends enabled him to prevail.

This said, it must be seen that whoever believes that Science is wholly objective diviner of ultimate truth on an emerging issue or controversial matter -- any more than the diplomatic portfolio of an ambassador -- has never embarked on such scientific research of his or her own. Thomas Kuhn, the modern-day scientific philosopher notes, in effect, that the more serious the controversy, the more likely an imminent paradigm shift is to follow the "old-science," its adherents clinging rabidly on to their beliefs and their power before being replaced by the new. Examples of younger scientists and proponents of new ideas being crowded out or silenced can be found by rummaging through the press and its morgue. One can only hope that ultimately that the truth of "true" science eventually prevails, just as one can only pray that the progressive diplomacy of ambassadors is powerful enough to circumvent war.

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² He left Paris on June 12, about a month after receiving orders recalling him, and set sail for America on June 28, according to Thomas Streissguth, in "Benjamin Franklin," Lerner Publications, Minneapolis, Minn. 2002.

³ Marie Antoinette's sedan chair was in actuality a litter slung between two Spanish mules, in which Franklin could recline gently rocked while travelling. James Strodes, Franklin the Essential Founding Father, Regnery Publishing.

⁴ The benefits of using a sedan chair appeared to have first been communicated to Franklin by Abigail Adams in a letter dated December 3, 1784 in expressing her sympathies at an unnamed indisposition which caused Franklin to miss a dinner party hosted by the Adams in Paris. See Letters of Benjamin Franklin.

⁵ Benjamin Franklin is given this sobriquet according to the official history of the US State Department. See Under Secretary for Public Diplomacy and Public Affairs, Bureau of Public Affairs, Office of the Historian, Timeline of U.S. Diplomatic History, 1775-1783. Between 1776 and 1778 Franklin was part of a three-man commission charged with gaining French support for American independence. In 1779, he became the first American Minister (the 18th century equivalent of Ambassador) to be received by a foreign government. When Thomas Jefferson succeeded Franklin in 1785, Vergennes, the French Foreign Minister asked: "Is it you who has come to replace Dr. Franklin?" to which Jefferson replied, "No one can replace him, Sir; I am only his successor." U.S. Department of State, Diplomacy in Action. USA.gov.

⁶ At least until 1778, when at the recommendation of John Franklin, the three man commission was dissolved .Abigail Adams by Charles Akers(2002) p. 107

⁷ Stacy Schiff (in Franklin: A Great Improvisation,) suggests that Deane was incapable of accomplishing anything significant other than an alliance with Beaumarchais, and had not been able to secure a meeting with Vergennes, while other historians disagree, as noted below.

⁸ According to Thomas J Schaeper, in the six months that Deane preceded Franklin, with the help of French mercenaries, racketeers and advisors recommended by Franklin, he was able to procure 8 shipments of munitions and supplies, at a cost of five million livres (about five million dollars), half for arms and ammunition acquired from the Royal arsenal and half for clothing and supplies. See "France and American in the Revolutionary Era, The Life of Jacques-Donatien Leray de Chaumont" by Thomas J Schaeper. 1995, Bergahan Books, New York.

⁹ Arthur Lee had loudly accused Silas Deane of mixing his profiting from his diplomatic assignment my mixing public and private business, an accusation which Deane refuted, retaliating in a newspaper address. “By then Franklin and the French foreign minister considered Lee and enemy of the alliance.” Charles W. Akers, *Abigail Adams, An American Woman*, Person Longman, N.Y, 2002 at page 102. Deane in turn pointed fingers at Dubourg. See Stacy Schiff.

¹⁰ In actuality, John Adam’s lack of rapport with Vergennes, the French Foreign Minister, and the architect and force behind many of the commercial and trade initiatives is what caused Adam’s diplomatic career in France to careen. Not only were his written demands of Vergennes to enter into an alliance with the United States unusually direct and rather chauvinistic, but Adam’s view that other countries , notably Holland and Spain could supplant France’s usefulness did not sit well with Vergennes. In a letter to Franklin, Vergennes shuts the diplomatic door with Adams by refusing to deal with him or receive his letters. See “The Life of Benjamin Franklin, vol 2, by Benjamin Franklin, p535. By John Bigelow, Lippincott Publishing, Pa.1875.

¹¹ According to *American History Illustrated*, edited by Mrs. Martha Lamb, 1886, *The Magazine of American history with notes and queries*, Volume 16, July –December; By Abbatt, William, 1851-1935, John Austin Stevens, Benjamin Franklin DeCosta, De Costa, B. F. (Franklin was first presented to Marie Antoinette in 1778, where he was invited to stand by her side so that the 22year old Queen could converse with the 72 year old Franklin about the cause of the America, a subject she made fashionably smart for discourse at court (failing to perceive its ultimate implications for France, no doubt). His attire, which conspicuous by its absence did not include the otherwise de rigueur wig and sword, captivated her (she who tried vainly to avoid the feminine equivalent of corsets, to no avail – see what Marie Antoinette Wore to the Revolution), liking the “effrontery with which she imagined he had to pass the Chamberlain at court, “and her attentions to him were all that much more gracious and flattering for that reason.” The Court, took her lead and followed suit, affording Franklin the most extreme of courtesies. Id. His natural with and charm furnished him with the other social connections upon which he was lavished. While Franklin, on his arrival was regarded as a person of importance due to his scientific discoveries, as Abbatt writes, “From the hour he was ushered into the presence of the Queen in 1778 and invited to stand by her side that she might converse with him as opportunity offered, he was a star of the first magnitude in the French mind.”

¹² James Strodes, *Franklin, The Essential Founding Father*, Regnery Publishing, Washington D.C. 2002, at page 326. Strodes, however, asserts that Franklin was wearing a brown velvet suit at the time of his first audience with the Queen in March of 1778.

¹³ The French card game of Quadrille having gone out of fashion by this time, with English whist taking over in popularity, see Edward Everett Hale, *Franklin in France*.

¹⁴ Franklin began his study of French in 1733, and while he states that I “I soon made myself a Master of the French as to be able to read the Books with ease,” see page 82, Benjamin

Franklin's Autobiography, edited by J.A. Leo Lemay and P.M. Zall, WW Norton and Co, N.Y. 1986, others have indicated that Franklin's spoken ability was less than masterful, See James Strodes, "Franklin: The Essential Founding Father," Regnery Publishing, Washington DC 2002. That Franklin's letter of acceptance to the French Academy of Sciences was written in English supports this view. Adams, a Harvard educator lawyer was certainly better schooled, and Abigail, while, too, unpracticed in speaking French had at least learned it as a young girl, reading her way through her father's not inconsiderate library, see Charles Akers, Abigail Adams, An American Woman, Pearson Longman, New York 2006.

¹⁵ .pbs.org/benfranklin/13_world_france.html, The World of Influence, citing biographer Claude-Anne Lopez.

¹⁶ According to Ellen Cohen, the editor of "The Papers of Benjamin Franklin," prepared by Yale University Press, "French support was entirely due to Franklin." www. Amphilsoc.org,

¹⁷ See "Benjamin Franklin: A Man in Paris or How he wooed the French to win the Revolutionary War," by the *counterpunch*; see also heros4u.com

¹⁸ Franklin was to meet with Vergennes on December 28, just one a week after arriving in Paris, and only three days after briefing Lee and Deane – on Christmas Day – about the specific objectives of their mission: to negotiate an agreement of amity and commerce, and to procure war material, according to Strodes in Franklin, the Essential Founding Father, at page 301.

¹⁹ James Campbell, "Recovering Benjamin Franklin: An exploration of a life of science and service" J. Carus Publishing Company, Ill. 1999.

²⁰ According to Ellen Cohen, editor of The Papers of Benjamin Franklin," "In terms of world fame, there is no question that during this time Franklin was the most famous American in the world."

²¹ Near the town of Auray, See Stacy Schiff, "A Great Improvisation: Franklin, France and the Birth of America." Henry Holt and Co. 2005.

²² Thomas Streissguth, "Benjamin Franklin," According to this author, Franklin and grandsons William Temple Franklin and Benjy Franklin Bache, arrived in Western France in late November, and then travelled by coach to Paris, by way of Nantes where he had arranged to secure his baggage as well as secure letters of credit. See Stacy Schiff (2005).

²³ It appears Franklin sends three letters to Deane before receiving suitable reply, along with one entrusted with his friend Dubourg. See The Letters of Benjamin Franklin, Packard Humanities Institute.

²⁴ Franklin contacts Dubourg upon Dean's no show in Auray on December 4th, sending a direct letter to Deane. A second letter is sent to Deane on December 7th from Nantes where Franklin is waiting for his baggage, still aboard ship. Having received no reply, Franklin sends yet a third letter on December 20th.

“Versailles, Friday, Dec. 20. 1776 4. PM, a la belle Image

[*Torn: My dear Friend?*]

Finding myself too much fatigu'd to proceed to Paris this Evening, *and not knowing whether you have receiv'd my Letter wherein I requested you to provide me a Lodging*, I have concluded to remain here to-night. If you are in Paris, I hope to hear from you to-morrow Morning before I set out, which will hardly be till about Noon. With the sincerest Esteem, I have the Honor to be, Dear Sir, Your most obedient humble Servant

B Franklin

Honble. Silas Deane Esqr

Notation: Doct. Franklin 20 Dec 1776627245 = 023-047a.html [emphasis in the original] From the Letters of Benjamin Franklin; Packard Humanities Institute

²⁵ According to the American Magazine of History, Illustrated, edited by Martha Lamb and published in 1886, at Franklin's first formal presentation before Marie Antionette he was dressed in a plain black velvet suit, white shirt, ruffled at cuff and bosom, white silk stockings and silver buckles. Missing were the requisite wig and sword. (Strodes claims Franklin was wearing a brown velvet suit on his first presentation to the Queen in March of 1778.)

²⁶ In 1768, the Dutchman Corneille de Pauw published his *Recherches philosophique sur les Americains* in which he claimed that the cold damp American climate caused all things living there to degenerate, including the White settlers, whom he asserted were physically, culturally and morally inferior to Europeans. A similar treatise was ascribed to George Louis LeClerc, the Comte du Buffon who ostensibly included similar language in his *Histoire Naturelle* in 1766. However, LeClerc was also the earliest translator and avid follower of Benjamin Franklin's work in 1747, and it appears that LeClerc's observations were limited to animals in that he must surely have recognized that at least some Americans were not similarly affected. www.ansp.org./museum/jefferson/otherPages/degeneracy-1.php The ensuing conclusion in the 1770 publication, *Histoire philosophique et politique des deux Indes* (Philosophical and Political History of the Two Indies), of the abbe Raynal, that "One must be astonished that America has not yet produced one good poet, one able mathematician, on man of genius in a single art or a single science," id. is certainly one with which Buffon would have taken exception.

²⁷ Jerry Weinberger, "Benjamin Franklin, Unmasked: On the Unity of His Moral, Political and Religious Thought," University of Kansas Press, 2005. P112, 115,255.

²⁸ Summed up by Fr. Beccaria in Italy who described the “truth of Franklinian theory is established by appealing to the two masters of true learning, observation and experiment.” Note 35 in Benjamin Franklin’s *Science* by L Bernard Cohen.115,

²⁹ Forget not mee & my garden--": selected letters, 1725-1768, of Peter Collinson, Alan W. Armstrong

³⁰ John Bartram, 1699-1777. *Observations on the Inhabitants, Climate, Soil, Rivers, Productions, Animals, and Other Matters Worthy of Notice*. London: Printed for J. Whiston and B. White, 1751. John Bartram was a Philadelphia farmer, self-taught botanist and close friend of Franklin. His botanical garden on the banks of the Schuylkill River was a frequent meeting place for Philadelphia's scientific community. With Franklin's help, Bartram developed a thriving trade supplying plants and seeds to British gardeners and later was appointed King's Botanist to the Colonies. Benjamin Smith Barton, 1766-1815. *Elements of Botany*. Philadelphia: Printed for the author, 1803. Benjamin Smith Barton, nephew of the scientist David Rittenhouse, was America's leading academic botanist of the late eighteenth century and author of this standard text on botanical medicine. His primary career was as a physician and he succeeded Benjamin Rush as Professor of Medicine at the University of Pennsylvania. He was a close associate of William Bartram (the son of John Bartram), many of whose drawings were used in his books. University of Delaware Library, special collections.

³¹ Wikipedia, Peter Collinson, see also the Autobiography of Benjamin Franklin.

³² Franklin, himself credits his interest in electrical experimentation with his observation of the “imperfect” experiments of a Dr. Archibald Spence, whom he met for the first time in Boston in May and June 1743; see the Autobiography of Benjamin Franklin and editorial notes of JA Leon Lemay p 130.

³³ These correspondences between Franklin and Collinson were not limited to Franklin’s electrical experiments, nor even science, generally but included, at least by the 1750s, Franklin’s observations on climatology and ocean currents as well as his sociological theories. See, generally, Joyce Chaplin “The First Scientific American: Benjamin Franklin and the Pursuit of Genius,” Basic Books, New York 2006.

³⁴ Benjamin Franklin's *Experiments and Observations* is the most important scientific book of eighteenth century America and established Franklin as the first American scientist with an international reputation. In this famous treatise on electricity, Franklin outlined experiments which proved that lightning is an electrical phenomenon and deduced the positive and negative nature of electrical charges. The text is in the form of a series of letters and papers addressed to Peter Collinson, a London merchant and naturalist. These communications were originally published in three separate pamphlets in 1751, 1753 and 1754. By 1774, five editions had appeared, and by 1783 the work had been translated into French, Italian and German. This copy is the fourth edition, which was the first to contain all three pamphlets in a single volume.³⁴

Experiments and Observations on Electricity, made at Philadelphia in America. London: David Henry, 1769.

³⁵ How Franklin Made His Kite, Written by Benjamin Franklin to Peter Collinson, October 19, 1752: Make a small cross of two light strips of cedar, the arms so long as to reach to the four corners of a large thin silk handkerchief when extended; tie the corners of the handkerchief to the extremities of the cross, so you have the body of a kite; which being properly accommodated with a tail, loop, and string, will rise in the air, like those made of paper; but this being of silk is fitter to bear the wet and wind of a thunder gust without tearing. To the top of the upright stick of the cross is to be fixed a very sharp pointed wire, rising a foot or more above the wood. To the end of the twine, next the key may be fastened. This kite is to be raised when a thunder-gust appears to be coming on, and the person who holds the string must stand within a door or window, or under some cover, so that the silk ribbon may not be wet; and care must be taken that the twine does not touch the frame of the door or window. As soon as any of the thunder clouds come over the kite, the pointed wire will draw the electric fire from them, and the kite, with all the twine, will be electrified, and the loose filaments of the twine, will stand out every way, and be attracted by an approaching finger. And when the rain has wetted the kite and twine, so that it can conduct the electric fire freely, you will find it stream out plentifully from the key on the approach of your knuckle. At this key the phial may be charged: and from electric fire thus obtained, spirits may be kindled, and all the other electric experiments be performed, which are usually done by the help of a rubbed glass globe or tube, and thereby the sameness of the electric matter with that of lightning completely demonstrated.

[://www.ushistory.org/franklin/info/kite.htm](http://www.ushistory.org/franklin/info/kite.htm)

³⁶ through the efforts of a Dr. Wright, Mr. Canton and Dr. Watson

³⁷ Although some biographers contend the award was made in 1952, (Benjamin Franklin, His Life as He Wrote It, Esmond Wright) according to Franklin's autobiography, the award was made in 1753. The autobiography of Benjamin Franklin

³⁸ [w.ushistory.org/franklin/info/timeline.htm](http://www.ushistory.org/franklin/info/timeline.htm), The Electric Ben Franklin

³⁹ A letter dated December 17, 1772 to the Royal Society demonstrates Franklin's serving some commission with these gentlemen.

⁴⁰ The diploma of membership and the Copely medal were apparently presented to Franklin on August 22 1756 by Captain Denny, the Governor of New York, on his arrival from London. An ensuing celebration was held by the "City Corporation of New York.

⁴¹ History of the Royal Society of London

⁴² The nomination was made in January, and the balloting and election the following May, signed by the Earl of Macclesfield, and Messrs. Parker, Willoughby, Collinson, Watson, Birch, Parsons and Canton, who was to introduce Franklin to Joseph Priestly.

⁴³ Gutenkarte, the Autobiography of Benjamin Franklin

⁴⁴ Although some say they were well regarded, largely because Watson, the leading authority of the day approved, states scientific historian Roderick Weir Home: In the Development of Science; the Effluvial History of Electricity,” at page 204., Arno Press Inc., 1981.

⁴⁵ Buffon: a life in natural history By Jacques Roger, Leslie Pearce Williams, translated by Sarah Lucille Bonnefoi, 1997 Cornell University Press, NY claiming that Dalibard reproduced the Franklin’s experiment establishing that pointed metal could attract electricity from a storm cloud on May 10, 1752 and Buffon on May 19, only a few weeks before Franklin would perform his famous kite experiment on June 22. Buffon’s antagonistic relationship with Nollet doubtless instigated the publication and translation of Franklin’s writings, but his natural affinity for Franklin may have arisen from an unconscious filial connection, Buffon’s father having the name of Benjamin-Francois www.chlt.org/sandbox/lhl/dsb/page.576.php, Cultural Heritage Technologies, Linda Hall Library History of Science Collection, Buffon, Georges Le Clerc, Comte de.

⁴⁶ Esmond Wright , Benjamin Franklin, His Life as He Wrote It

⁴⁷ Franklin may not have met Le Roy personally until his French visit in 1767, after which he recounts his great appreciation for LeRoy’s gracious hospitality; letter to Le Roy dated March 14, 1768 (drafted on January 31) . In Le Roy’s response, dated September 21, he adjures Franklin to send his best wishes to M. Pringle and introduces his own acquaintance, M. l’abbe Taglieri to Franklin with a request that a further introduction be made to Pringle. Interestingly, while Le Roy corresponds in French, Franklin replies in English, begging off for his poor French but noting LeRoy’s greater facility with English. The letters with Le Roy also evidence Le Roy’s interest in the American revolutionary struggle.
<http://franklinpapers.org/franklin/framedVolumes.jsp?vol=17&page=125a>

⁴⁸ The Princess and the Patriot, edited by Sue Ann Prince, section by Karen Duval, at page 61.

⁴⁹ wapedia.mobi/en/Georges-Louis_Leclerc,_Comte_de_Buffon, although some say that his induction did not occur until 1753 See also *The Columbia Encyclopedia, Sixth Edition* Copyright© 2004, Columbia University Press. Licensed from Lernout & Hauspie Speech Products N.V. All rights reserved.

⁵⁰ In 1749 he began publishing a massive *Histoire Naturelle* (which reached 44 volumes⁵⁰) which set out to organize all that was then known about the natural world.

⁵¹ [.philosophyprofessor.com/philosophers/comte-de-buffon.php](http://philosophyprofessor.com/philosophers/comte-de-buffon.php)

⁵² [.philosophyprofessor.com/philosophers/comte-de-buffon.php](http://philosophyprofessor.com/philosophers/comte-de-buffon.php)

⁵³ Buffon: a life in natural history By Jacques Roger, Leslie Pearce Williams

⁵⁴ Private correspondence of Benjamin Franklin, Volume 1, letter to Buffon by Franklin, November 19, 1787.

⁵⁵ “The princess & the patriot: Ekaterina Dashkova and Benjamin Franklin,” edited by Sue Ann Prince.

⁵⁶ It has been told that upon happening on Buffon in the park at Marly, the famed mistress of Louis XV, tapped him lightly with her fan and remarked, “Vous etes un joli garçon.” [You’re such an attractive man]. While Buffon declined Pompadour’s amorous advances, (out of allegiance to the Queen), she remained an admirer having read his *Histoires Naturelle*, (although she disagreed with parts), and bequeathed to him her dog, parrot and monkey on her death.” *Madame de Pompadour*,” by Hugh Noel Williams and Jeanne Antoinette, Le Normand d’Etioules.

⁵⁸ The rich young man was now able to make an impression in the highest ranks of the political and scientific circles in Paris. Jean-Frédéric Phélypeaux Comte de Maurepas, the minister to the navy, was undertaking the huge task of reorganizing the severely demoralized French navy. He wanted to improve the construction of ships of war, and he asked Buffon to study the tensile strength of timber to assist in this task. He next published *Mémoire sur le jeu de franc-carreau* which introduced differential and integral calculus into probability theory. As a result of this fine memoir Buffon was elected to the Royal Academy of Sciences in Paris on 9 January 1734. [/www-history.mcs.st-and.ac.uk/Printonly/Bufferon.html](http://www-history.mcs.st-and.ac.uk/Printonly/Bufferon.html)

⁵⁹ [//wopedia.mobi/en/Georges-Louis_Leclerc,_Comte_de_Buffon](http://wopedia.mobi/en/Georges-Louis_Leclerc,_Comte_de_Buffon)

⁶⁰ The private life of Marie Antoinette, queen of France and Navarre, Volume 1 By Campan (Jeanne-Louise-Henriette, Mme), François Barrière, Mme Maigne.

⁶¹ The writings of Benjamin Franklin, Volume 10, By Benjamin Franklin, 327

⁶² Pringle, a Scotsman was known for his studies of military hospitals and jails, is sometimes referred to as the Father of Military Medicine. In 1742 he negotiated an agreement with the French commander that military hospitals be considered immune sanctuaries for the wounded, an agreement which served as the predicate for the International Red Cross charter, and likely garnered appreciation from both English and French physicians in the process.

⁶³ Wikipedia

⁶⁴ Benjamin Franklin: An American Life; By Walter Isaacson Collinson introduced Franklin to Pringle, and to Dr. John Fothergill

⁶⁵ Straubes

⁶⁶ [p://www.clanpringle.org.uk/html/dr_john_pringle.html](http://www.clanpringle.org.uk/html/dr_john_pringle.html)

⁶⁷ The two were practiced travelling companions; Franklin having accompanied Sir John the year before to Germany and the Netherlands.

⁶⁸ Benjamin Franklin's interest in medical science has been given short shrift. As early as 1759, in his introduction to the book that Franklin asked Dr. William Heberden co-member of the Royal Society to write about Inoculation for Smallpox to be circulated in America, Franklin writes perhaps the first epidemiological study performed in this country, comparative mortality statistics between inoculated and non-inoculated, and the differences in response to the practice and between blacks and whites, showing data he apparently conducted in 1753 and 1754. "Smallpox in the Americas: 1492 to 1815, Contagion and Controversy," by Charles Beatty prepared for the John Carter Brown Library, Rhode Island, 2002.

⁶⁹ Franklin in France, By Edward Everett Hale.

⁷⁰ Likely his exposure to Pringle and the epidemiology used in Pringle's military hospital investigation of sepsis was not lost on Franklin and may have served as inspiration in Franklin's own little known epidemiological studies. r John Pringle's Observations on the Diseases of the Army.<http://jech.bmj.com/cgi/reprint/59/11/966.pdf>

⁷¹ Franklin in France, By Edward Everett Hale

⁷² Id.

⁷³ Benjamin Franklin: An American Life by Walter Isaacson By Walter Isaacson

⁷⁴ /franklinpapers.org/franklin/yale?d=-749780936&trans=true&vol=19&page=306b, letter from Jean Babtiste LeRoy to Ben Franklin dated September 30, 1772

⁷⁵ Letter from Pringle to Franklin inviting the latter to dinner to meet Dr. Inglehousz and Mlle. Biheron. Dated Dec6 1771,

⁷⁶ Apparently it was Pringle who affected Frankin's personal introduction to M. Dalibard, his French translator.

⁷⁷ Letter from Franklin to Dallibard dated September, 1769

⁷⁸ Upon performing Franklin's kite experiment before Louis XV, D'Alibard was awarded a life pension by the King for "performing an experiment so interesting."

⁷⁹ Priestly's scientific circle included John Canton, the first person in England to repeat the experiment of drawing electricity from thunderclouds, who introduced him to Ben Franklin Joseph Priestley, scientist, philosopher, and theologian By Isabel Rivers, David L. Wykes The future discoverer of oxygen would eventually follow his mentor to Pennsylvania and into in the new American Republic.

⁸⁰ becoming President after the resignation of Sir John Pringle (who resigned on refusing to side with the King's view of a scientific proposition, claiming science was not a subject of any realm) in 1778. /homepage.newschool.edu/het/profiles/priestley.htm

⁸¹ Wkipedia Benjamin Franklin.

⁸² Priestly's work also contained an important a description of contemporary theories about electricity and suggestions for future research.

⁸³ lonial-america.suite101.com/article.cfm/benjamin_franklin_environmentalist

⁸⁴ /royalsociety.org/page.asp?tip=1&id=4873

⁸⁵ The princess & the patriot: Ekaterina Dashkova, Benjamin Franklin, and the Age of Enlightenment, edited by Sue Ann Prince, American Philosophical Society, Pa. 2006. See A Man Made to Measure, Benjamin Franklin, American Philosophe, by Karen Duval

⁸⁶ Thomas Scheper.

⁸⁷ The duke succeeded Choiseul as Foreign minister from 1770-1774, when he was replaced on Louis XVI's ascension by the the 74 year old comte le Maurepas (who was Naval Minisiter to Louis XV from 1723 to 1749) Maurepas (who supported Vergennes activities to aid the new America) also functioned as prime minister until his death in 1781.

⁸⁸ ://franklinpapers.org/franklin/yale?d=1043043642&trans=true&vol=20&page=483a

⁸⁹ "France and America in the revolutionary era: the life of Jacques-Donatien' By Thomas J. Schaeper

⁹⁰ The Great Improvisation, Franklin, France and the Birth of America, by Stacy Schiff, Henry Holt & Co, NY, 2005, at pages 14- 15.

⁹¹ He had also been given other strict instructions, such as not walking the streets of Paris, lest he talk to the wrong people. Id.

⁹² The Committee of Secret Correspondence: Instructions to Silas Deane Copy: Connecticut Historical Society; copy: Yale University Library; copy: South Carolina Historical Society Philadelphia March 3rd. [*i.e.*, 2,] 1776, letter to Silas Deane sent by Ben Franklin date March 3, 1776 to wit,:

“When you come to Paris, by delivering Dr. Franklin’s letters to Monsieur Le Roy at the Louvre, and M. Dubourg, you will be introduced to a set of acquaintance, all friends to the Americans. By conversing with them, you will have a good opportunity of acquiring Parisian French, and you will find in M. Dubourg, a man prudent, faithful, secret, intelligent in affairs, and capable of giving you very sage advice.

“It is scarce necessary to pretend any other business at Paris, than the gratifying of that curiosity, which draws numbers thither yearly, merely to see so famous a city. With the assistance of Monsieur Dubourg, who understand, English, you will be able to make immediate application to Monsieur de Vergennes, *Minister des Affaires Etrangeres*, either personally or by letter, if M. Dubourg adopts that method,

“You will endeavor to procure a meeting with Mr. Bancroft by writing a letter to him, under cover to Mr. Griffiths at Turnham Green, near London, and desiring him to come over to you, in France or Holland, on the score of old acquaintance. From him you may obtain a good deal of information of what is now going forward in England, and settle a mode of continuing a correspondence. It may be well to remit him a small bill to defray his expenses in coming to you, and avoid all political matters in your letter to him. You will also endeavor to correspond with Mr. Arthur Lee, agent of the colonies in London.”

⁹³ id

⁹⁴ See TJ Schaeper, *ibid.* France and America in the revolutionary era: the life of Jacques-Donatien LeRay Chaumont

⁹⁵ Some say Bancroft recruited Deane into spying against America for Britain. See “Gallantry in action: A biographic dictionary of espionage in the American ... By Harry Thayer Mahoney, Marjorie Locke Mahoney

⁹⁶ Life and times of Benjamin Franklin, Volume 2 By James Parton

⁹⁷ The writings of Benjamin Franklin, Volume 10, By Benjamin Franklin, The Writings Collected and Edited with a Life and Introduction Albert Henry Smyth 1789-1790.

⁹⁸ Hale, Franklin in France at page 142

⁹⁹ He sends here a note in 1781 offering his best wishes and that of the American people.s

¹⁰⁰ Mme du Defand writes to Horace Walpole on march 22 1778 that Franklin wore a dress of Reddish Brown velvet, white hose and a white hat hanging under his arm with spectacles on his nose. The writings of Benjamin Franklin, Volume 10, By Benjamin Franklin

¹⁰¹ According to Hale, Franklin in France: From original documents, most of which are now ..., Volume 1 quoting from a January 10 report from the French police made to the French government, By Edward Everett Hale: Franklin wore the fur cap all the time, no powder, was neat of dress, the linen of his shirt was very white and he had a brown coat. This may be the source of the conclusion he was presented to the court in a suit of Brown velvet.

¹⁰² Queen of Fashion, What Marie Antoinette Wore to the Revolution, by Caroline Weber, Henry Holt, NY 2006, By Edward Everett Hale: Franklin wore the fur cap all the time, no powder, was neat of dress, the linen of his shirt was very white and he had a brown coat. This may be the source of the conclusion he was presented to the court in a suit of Brown velvet.

¹⁰³ Science and the founding fathers: By I. Bernard Cohen

¹⁰⁴ Id see also *Peter Collinson and the Eighteenth-Century Natural History Exchange*, by Jean O'Neill and Elizabeth P. McLean(1937) American Philosophical Society, Benjamin Franklin: An American Life; By Walter Isaacson Collinson introduced Franklin to Pringle, and to Dr. John Fothergill.