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# A Calvinist republican at the court of His Catholic Majesty: Jacques-François Deluc, the *Fabrique de Genève* and Genevan-Spanish relations during the eighteenth century

## Part II: The *Fabrique* intervenes in Spain

William Eisler

[William Eisler, «A Calvinist republican at the court of His Catholic Majesty: Jacques-François Deluc, the *Fabrique de Genève* and Genevan-Spanish relations during the eighteenth century. Part II: The *Fabrique* intervenes in Spain», 45, 2016-2018, p.3-23]

### **Dassier's medal of Ferdinand VI (1746): the Genevan citizenry celebrates a new king's reign**

The Dassiers, engravers of the Republic's coinage from 1677 to 1780, were intimately involved in the production and sale of a wide range of the *Fabrique*'s goods for many years. They employed their coin and medal presses in the striking of cases, dials and cocks for their watchmaker colleagues, and like their friend Deluc were equally engaged as agents in the luxury goods trade, selling watches, snuffboxes, rings and toothpick cases among other items<sup>1</sup>. Medal-making was in a sense a side venture among their commercial

activities, one however of immense international prestige.

Although he styled himself «graveur médailliste de la République de Genève», Jean Dassier never received such a title from the government. In reality very few of his works were commissions from the *Seigneurie*, and almost all were undertaken on his own initiative as a means of enhancing the image of

<sup>1</sup> William EISLER, *The Dassiers of Geneva: eighteenth-century European medallists*. 1: Jean Dassier, medal engraver: Geneva, Paris, London, 1700-1733, Lausanne, Geneva, 2002, p.15-38; William EISLER, *Lustrous Images from the Enlightenment: the medals of the Dassiers of Geneva*, Milan, 2010, p.34-35. The Dassiers' activities as merchants are clearly revealed in a letter of 21 March 1752 to one of their most prestigious clients, the Prince of Waldeck (cited in William EISLER, «The Dassiers of Geneva and the creation of the Prince of Waldeck's numismatic image», dans Claudia BRINKER-VON DER HEYDE et al. (éd.), *Frühneuzeitliche Bibliotheken als Zentren des europäischen Kulturtransfers*, Stuttgart, 2014, p.135).

a vulnerable state and its artisans. This was especially true in regard to his famous series, commencing with *Les Hommes illustres du siècle de Louis XIV* (1723), seventy-three medals commemorating the great figures from the age of the Sun King, which he offered to the French regent Philippe d'Orléans. Subsequent sets, created in conjunction with the theologian Jean-Alphonse Turretini (1671-1737), were intended to improve relations with England: *Les Reformateurs de l'Eglise*, twenty-four medals presented in 1725 to William Wake, Archbishop of Canterbury, and *Les Rois d'Angleterre* (1731), an historical series of thirty-three works for George II and Queen Caroline<sup>2</sup>. During the political crisis of the 1730s, Dassier's works reflected his direct participation in events as a *représentant*. In 1737, he offered on his own initiative a portrait medal to Louis XV's prime minister, Cardinal Fleury, as a means of securing his support for the Genevan bourgeoisie. After the arrival of the count of Lautrec, Dassier like Deluc developed a close relationship with the royal ambassador, engraving his portrait as well as the official commemorative medal of the Mediation in 1738<sup>3</sup>. It is certain therefore that the artist would have been cognizant of the political impact for Genevan trade and foreign relations of a work honoring the arrival in 1746 of Ferdinand VI, half-brother of the infante Philip, on the throne (fig. 1). Ferdinand's coronation following the forty-six year reign of his father Philip V brought about renewed hope for a Spanish revival in an era of peace and prosperity.

The medal's obverse bears the image of the king in profile wearing a peruke. It is inscribed FERDINANDUS VI HISPAN. M REX., and signed I. DASSIER ET FILS. On the reverse the legend reads REGNORUM SUSCEPTO REGIMINE. («Having undertaken the direction of the realms»)<sup>4</sup>. The king is depicted at left, in Roman military attire, holding the rudder of the state in his right hand and proceeding towards a group of female figures representing the Four Parts of the World, who kneel before him: America (left foreground), Europe (right foreground), Africa (left background) and Asia (right background, holding the anchor of Navigation). A rabbit appears



Fig. 1 Jean Dassier and sons, Ferdinand VI, King of Spain (1713-59), takes possession of the kingdom, 1746, bronze, 41 mm. © Geneva, Musée d'art et d'histoire, inv. no. CdN 004478. Photo: Matteo Campagnolo.

under Europe's feet symbolizing Spain, an image derived from Roman imperial coinage. The exergue reads IX. JUL. MDCCXLVI | I. D. F.<sup>5</sup>

In her volume on the art of the medal during the Spanish Enlightenment, Elvira Villena states that

- 2 W. EISLER, *Jean Dassier, medal engraver: Geneva, Paris, London, 1700-1733*, op. cit., p. 85-266; W. EISLER, *Lustrous Images*, op. cit., p. 36-40. On the diplomatic importance of the *Rois d'Angleterre*, see also W. EISLER, «Jean Dassier and his medallic series, *The Kings of England*», *Proceedings of the Huguenot Society*, 29, 2012, p. 694-717.
- 3 W. EISLER, *The Dassiers of Geneva: eighteenth-century European medallists. 2: Dassier and sons: an artistic enterprise in Geneva, Switzerland and Europe, 1733-1759*, Lausanne, Geneva, 2005, p. 35-73; W. EISLER, *Lustrous images*, op. cit., p. 42-47. See also W. EISLER, «Art et politique dans les médailles genevoises de Jean Dassier (1734-1738)», *Bulletin de la Société d'histoire et d'archéologie de Genève*, 32-35, 2002-2005, p. 65-82.
- 4 I wish to thank Matteo Campagnolo, Curator of the Cabinet de numismatique, Musée d'art et d'histoire de Genève, for his assistance in translating the legend.
- 5 W. EISLER, *Dassier and sons*, op. cit., cat. no II.7.4; W. EISLER, *Lustrous images*, op. cit., cat. no 216; Elvira VILLENA, *El arte de la medalla en la España ilustrada*, Madrid, 2004, cat. no 1, p. 27, 176, 387.

Dassier was charged with the commission, and that for this purpose a profile drawing would have been sent from Madrid, executed in all probability by Louis Michel van Loo (1707-1771), who was responsible for the monetary busts for the new royal coinage. Whereas no documentary evidence has been uncovered concerning the work, it is clear that Dassier's medal constituted the official numismatic image for the coronation. It corresponds in nearly every detail to a larger medal (52 mm as opposed to 41) struck in Madrid in gold, silver and bronze, which was distributed during the ceremonies commemorating the king's enthronement (fig. 2)<sup>6</sup>. The latter work was executed by Carlos Casanova (1709-1770), an obscure painter and engraver with no experience as a medalist. Casanova's medal differs from Dassier's in certain respects. The peruke is considerably longer on the obverse bust as well as on the reverse. Likewise on the reverse the king is dressed in an ermine mantle and wears a chain with the Order of the Golden Fleece. The design and execution is clearly inferior to the Genevan work; certain flaws in the striking of the letters can also be detected. These details support Villena's argument that Dassier's medal was the model for Casanova's and not the reverse. The assumption of a task of such importance by a distinguished foreigner was common practice, as no native Spanish court medalist was employed at the time; moreover Deluc's correspondence indicates that Jean Dassier's son Antoine (1718-1780), younger brother of Jacques-Antoine, had been under consideration for such a position<sup>7</sup>.

In Spain as in every European court the medal commemorating the commencement of a reign was a work of primary political and diplomatic importance. The acceptance of Dassier's work as the official medallic image of the new king reflects the court's appreciation of Genevan expertise. No doubt Ensenada was especially impressed by the medal and sought to employ it within his program of reform in the arts, sciences and manufacture. Its appearance in Madrid at this critical moment undoubtedly influenced his decision to extend an invitation to Dassier's friend Jacques-François Deluc three years later.



**Fig. 2** Carlos Casanova, *Ferdinand VI, King of Spain (1713-59), takes possession of the kingdom, 1746*, silver, 52 mm. © Madrid, Museo Nacional del Prado, inv. no. 001236

### Ensenada, Ulloa and the quest for Genevan expertise

The coronation of Ferdinand VI marked the rise to summit of power of a major figure in the Spanish Enlightenment: Zénon de Somodevilla y Bengoechea, named Marquess of Ensenada in 1736 by Charles VII, King of Naples (1716-1788) and the future Charles III of Spain<sup>8</sup>. The son of a poor hidalgo, Ensenada

6 E. VILLENA, *El arte de la medalla*, *idem*, cat. no 2, p. 31, 176, 387; Marina CANO CUESTA, *Museo del Prado: catálogo de medallas españolas*, Madrid, 2005, cat. no 30, p. 148.

7 Jacques-François Deluc, Geneva, to Antonio de Ulloa, Madrid, 30 March 1753 (Bibliothèque de Genève [désormais-BGE], Ms. fr. 2482, p. 238).

8 José Luis GÓMEZ URDÁÑEZ, «Zénon de Somodevilla y Bengoechea, Marqués de la Ensenada», dans Gonzalo ANES Y ÁLVAREZ DE CASTRILLÓN (éd.) *Diccionario biográfico*



entered naval service at a young age, and at twenty-six was named royal commissioner of the fleet (1728). In 1732 his efforts at reorganization culminated in the reconquest of Oran and, two years later, the taking of Naples and Sicily. In 1737 he was named secretary to the infante Philip in his capacity as admiral of Spain and the Indies. After the outbreak in 1740 of the War of the Austrian Succession, Ensenada became Philip's secretary of state and, as we have seen, was at his side during his triumphal entry into Chambéry on 5 January 1743. Following his recall from Savoy in April of that year he would receive appointments as Minister of Finance, War, the Navy and the Indies. Although no mention is made in the documents of any horological gifts he may have personally received from the Genevan magistrates, he would undoubtedly have been impressed by the quality of the presents bestowed upon General Mina and his colleagues.

Ensenada was named prime minister in 1746 subsequent to the coronation of Ferdinand. In the tranquil period which ensued two years later after the Peace of Aix-la-Chapelle, he was able to institute an ambitious reform program encompassing a reorganization of the administration and taxes, the institution of a central bank, and the drafting of the cadastral plan which remains his most important monument. Likewise, his contributions to the cultural sphere were considerable, in particular regarding the development of the theater and the decoration of the king's residences, most notably the new Royal Palace of Madrid. He developed a close friendship with the celebrated castrato singer Farinelli (Carlo Broschi Barrese, 1705-1782), supporting the latter's efforts to transform Madrid into a capital of European opera<sup>9</sup>.

Perhaps the most vexing problem confronting the reforming minister was the deplorable state of Spanish manufacturing and technology. Ensenada's dream was to transform his country from an economic backwater to a modern state on a par with other European powers. To this end he dispatched two brilliant naval officers, Jorge Juan y Santacilia (1713-1773) and the aforementioned Antonio de Ulloa, on extended voyages of industrial espionage<sup>10</sup>. Whereas

Juan journeyed to England (1749-1750), his colleague's travels took him to France, Switzerland, the Netherlands, Denmark, Sweden and Germany between November 1749 and January 1752. After a stay in Lyon where he undertook a thorough investigation of the city's silk industry, Ulloa arrived in Geneva sometime in December 1749. Owing to the clandestine nature of the journey Genevan records are silent regarding the dates of his arrival and departure. We know however from the Deluc correspondence that Ensenada's envoy was accompanied on his Genevan sojourn by the prime minister's natural son Juan Bautista Torres, knight of Malta<sup>11</sup>.

The decision to engage Juan and Ulloa for such delicate missions was entirely logical<sup>12</sup>. Both had demonstrated precocious scientific talents. Each had served at a very young age in the geodesic expedition to Peru, organized in 1734 by the French Academy of Sciences with the support of the Spanish navy. Headed by the astronomer Louis Godin (1704-1760), the journey constituted the first scientific voyage to the Americas. Both Juan and Ulloa remained in the Western Hemisphere for a decade, carefully examining the natural history and geography of the regions under Spanish control. In the course of these investigations Ulloa discovered platinum, an event of far-reaching importance. The significance of the expedition was immediately recognized abroad. In

*español [DBE]*, 47, Madrid, 2013, p. 83-89. See also Didier OZANAM and Diego TÉLLEZ ALARCIA (eds.), *Misión en París: correspondencia particular entre el Marqués de la Ensenada y el Duque de Huéscar (1746-1749)*, Logroño, 2010, p. 15-23.

<sup>9</sup> On Farinelli, see María Salud ÁLVAREZ MARTÍNEZ, «Carlo Broschi Barrese, *Farinelli*», *DBE*, 9, 2009, p. 505-509.

<sup>10</sup> Juan HELGUERA QUIJADA, «Antonio de Ulloa en la época del Marqués de la Ensenada: de espionaje industrial al canal de Castilla (1749-1754)», dans Manuel LOSADA VILLASANTE and Consuelo VARELA (éd.), *Actas del II Centenario de Don Antonio de Ulloa*, Seville, 1995, p. 205 et Juan HELGUERA QUIJADA, «The Beginnings of Industrial Espionage in Spain», *History of Technology*, 30, 2011, p. 1-12.

<sup>11</sup> Jacques-François Deluc, Geneva, to Juan Bautista Torres, Paris, 14 June 1754 (BGE Ms. fr. 2482, p. 305). According to Deluc, the latter was the «fils naturel de S. E. M.<sup>r</sup> Le Marquis De La Ensenada».

<sup>12</sup> Manuel LOSADA VILLASANTE, «Antonio de Ulloa y de la Torre-Guiral», *DBE*, 48, 2013, p. 619-623.

the course of his return voyage in 1746 Ulloa was captured by the British at Louisburg. Brought to England as a prisoner of war, he soon realized that his reputation and the potential impact of his findings had preceded him. He was greeted by Martin Folkes (1690-1754), President of the Royal Society, who promptly had him elected as a fellow of that institution<sup>13</sup>. Reunited with Jorge Juan in Madrid the same year, the two men collaborated on works of major scientific and historical importance: *Relación histórico del viage a la América Meridional* (1748); *Observaciones astronómicas y físicas en los reynos del Perú* (1748) and *Dissertación histórica y geográfica sobre el meridiano de demarcación entre los dominios de España y Portugal* (1749). A fourth work, containing a highly critical account of abuses and corruption within the Spanish colonies, *Noticias secretas de América*, was commissioned by Ensenada in 1747 but remained unpublished until 1826.

In succeeding years Ulloa became a driving force in the Spanish Enlightenment. Among his many accomplishments were the construction of the Canal of Castile and the founding of the Casa de Geografía, the Gabinete de Historia Natural, the Laboratorio Metalúrgico, the Jardín de Plantas de Madrid, as well as the mercury mine of Almadán and the cloth factories of Ezcaray, Navarra and Segovia. In Cadiz, he joined forces with Juan and Godin in the creation of the Academia de Guardias Marinas and the Observatorio Astronómico. Ulloa later returned to the Americas, serving as governor of Huancavelica in Peru (1758-1764) and Louisiana (1766-1768).

By this time however his patron Ensenada was no longer in power. His Francophile, anti-British policies incurred the displeasure of Sir Benjamin Keene (1697-1757), His Majesty's ambassador in Madrid, who lent his support to his destitution in 1754 in favor of Ricardo Wall (1694-1777)<sup>14</sup>.

Among Ulloa's multiple interests, his passion for horology has attracted little attention, however his expertise in this field as in many others was undeniable. Moreover he played an important role in the enrichment of the royal collection of clocks and watches under Ferdinand VI. The king's fascination for

objects of this nature is well known<sup>15</sup>. Ferdinand inherited a number of works from his father Philip V, and it is known that his stepmother, the dowager queen Elizabeth Farnese (1692-1766), likewise possessed an important horological collection<sup>16</sup>.

Ulloa's knowledge of horology and his role in the development of the collection is well documented<sup>17</sup>. On 20 September 1748 the king wrote to Ricardo Wall, then serving as a diplomat in England, asking him to acquire a gold astronomical clock by the celebrated master horologist John Ellicott (1706-1772), author of several pieces for the Spanish court. The object was said to resemble a work recently produced by the latter for Ulloa. Accompanying the letter was a drawing and a note by the navigator describing in great detail the clock's fabrication and its special technical characteristics. On 5 December Ulloa provided a report requested by His Majesty regarding the mechanism of another astronomical clock made in London. It contained nine spheres marking the hours, minutes and seconds, the movements of the sun, the lunar calendar, the movements of the stars, planets etc. Ulloa recommended that the clock should not be acquired without examination of the exactitude of its measurements over a period of time. As the object was in London, he advised that George Graham, Ellicott or another member of the Royal Company of Clockmakers should do so. Further evidence of Ulloa's passion for horology was revealed during the course of his European mission in 1749-1752. Among the reports drafted in 1750 during a stay in Paris was

13 On Folkes, see William EISLER, «The construction of the image of Martin Folkes (1690-1754): art, science and Masonic sociability in the age of the Grand Tour», *The Medal* 58-59, 2011, p. 4-29, 4-16.

14 J. L. GÓMEZ URDAÑEZ, «Marqués de la Ensenada», *op. cit.*, p. 86-87.

15 Amelia ARANDA HUETE, «Los relojes del reinado de Fernando VI y Bárbara de Braganza», *Reales Sitios*, 46, 2009, p. 60-76.

16 The inventory of Elizabeth Farnese's collection of watches, drafted after her death in 1766, has been published in Yves BOTTINEAUX, *L'art de cour dans l'Espagne des Lumières, 1746-1808*, Paris, 1986, p. 417.

17 A. ARANDA HUETE, «Los relojes del reinado de Fernando VI y Bárbara de Braganza», *op. cit.*, p. 70.

a report on new clocks presented at the Academy of Sciences of Paris by a certain Mr. Ribaz, most certainly Pierre de Rivaz (1711-1772), a multitalented engineer and inventor from the Valais. Twenty of his instruments were brought before the academicians, including clocks for measuring longitude which must have been of particular interest to the navigator<sup>18</sup>. Ulloa would most likely have had prior knowledge of Rivaz's work. Following his arrival in Paris in 1749 the latter had been planning to create industries in Spain. In that year the Spanish ambassador had requested him to bring his talents in mechanics and hydraulics to Madrid<sup>19</sup>. Although this voyage never took place, Rivaz's project could have influenced Ulloa's decision to invite Deluc to Spain, and likewise may well have played a role in the latter's decision to accept the offer, as the Genevan was very familiar with Rivaz's work. In December 1757, he responded positively to a request from the Bern government to promote one of the Valaisan's inventions at the court of Madrid: a clock designed to run for an entire year<sup>20</sup>.

### Antonio de Ulloa in Geneva; Jacques-François Deluc in Madrid

No magistrate of the Republic greeted the secret agent of His Catholic Majesty when he arrived in the Calvinist Rome in December 1749 from Lyon, accompanied as we have seen by Juan Bautista Torres, son of the Marquess de la Ensenada<sup>21</sup>. Nothing is known specifically of his itinerary or who served as his guide; we may suppose it was Deluc, although details as to how the navigator and watchmaker met are lacking. We know that Ulloa was particularly impressed by the hydraulic machine bringing water from the Rhône to the city, constructed in 1708 by Joseph Abeille (1673-1752). In March 1751 he sent a model of this apparatus to Ensenada from Paris, in the hope that it might be adapted for use in Spain<sup>22</sup>. We can safely assume that he was shown the *Bibliothèque publique* and its collections by Deluc.<sup>23</sup> Among the persons he encountered was Firmin Abauzit (1679-1752), honorary librarian and universal genius in the arts and sciences who made a strong impression on numerous personalities

including Rousseau. Another was the *Bibliothèque's* librarian Jean Jallabert, the noted physicist, mathematician and chemist who had published an important work, *Expériences sur l'électricité* one year earlier. Most certainly he would have informed Ulloa regarding experiments on electricity he had recently conducted in collaboration with Deluc's sons. He also encountered members of the influential Sellon family with whom Deluc had particularly close ties: Jean (before 1682-1757) and his son Gaspard (1702-1785). Finally he was introduced to Jean Dassier, author of the Spanish king's medal and many other noteworthy works, a number of which the navigator possessed in his personal cabinet.

Ulloa returned to Paris via Lyon impressed by what he saw. On 31 December, Deluc, addressing him as «*Mon très cher & très honoré mentor*», wrote an effusive letter expressing his extreme pleasure regarding his upcoming voyage to Spain<sup>24</sup>. He discusses the consignment of goods to be transported to Madrid, in particular the important collection of jewels by his compatriot Jean-Jacques Pallard, whom he describes as one of the most celebrated jewelers in Europe, the recipient of commissions from the courts of Vienna, Dresden and Munich. An accompanying note attached to the letter<sup>25</sup> lists only Pallard's

18 J. HELGUERA QUIJADA, «Antonio de Ulloa en la época del Marqués de la Ensenada», *op. cit.*, p. 208-209. On the presentation in Paris of Rivaz's works, see Henri MICHELET, «Pierre de Rivaz, inventeur et historien, 1711-1772», *Vallesia*, 46, 1986, p. 129-148.

19 H. MICHELET, «Pierre de Rivaz», *idem.*, p. 75-77.

20 Jacques-François Deluc, Geneva, to Louis de Muralt, Bern, 9 December 1757 (BGE Ms. fr. 2482, p. 344-345).

21 J. HELGUERA QUIJADA, «Antonio de Ulloa en la época del Marqués de la Ensenada», *op. cit.*, p. 204 (Torres is not mentioned).

22 Antonio de Ulloa, Paris, to the Marquess de la Ensenada, Madrid, 9 March 1751 (AGS Marina, leg. 712, f. 721 (cited in J. HELGUERA QUIJADA, «Antonio de Ulloa en la época del Marqués de la Ensenada», *op. cit.*, p. 204).

23 Information regarding the persons encountered by Ulloa during his visit to Geneva is contained in letters from Deluc to his distinguished friend dated 11 August and 22 September 1752 (BGE Ms. fr. 2482, p. 161-163, 181-182).

24 Jacques-François Deluc, Geneva, to Antonio de Ulloa, Lyon, 31 December 1749 (AGS Marina, leg. 712, ff. 252-254).

25 AGS Marina, leg. 712, f. 251.

works, but Deluc states that his own portion of the shipment consists of about thirty to thirty-five watches, including ten cylinder watches signed with his name. Among the prized objects by Pallard enumerated in the list is a hunting knife mounted in finely chased gold, with a sardonyx handle engraved in relief, the entirety enriched with brilliants, weighing twenty-four carats, together with a brilliant of eight grains, as well as a woman's repeating watch in a green enameled case enriched with brilliants, conceivably a collaborative work by the two masters.

Two weeks later Ulloa wrote an enthusiastic letter to Ensenada requesting a passport for Deluc whom he refers to as the most famous watchmaker in that city, admired by all of its professors of mathematics<sup>26</sup>. He expresses his admiration for the works he saw from his hand, executed by a master with significant experience in London and Paris, whose presence can benefit the development of Spanish horology, notably in regard to the training of students. Upon his arrival he would be received by Alonso Perez Delgado, Madrid's chief magistrate, who will provide him with introductions to ministers, in order to obtain official patronage while avoiding conflicts with potentially resentful Madrid watchmakers. In Ulloa's view the only objection that could be raised regarding Deluc is his Protestant affiliation, however he adds that there are others of his faith residing without difficulties in Cadiz. Indeed, Genevan watch merchants had been established in that city for some time<sup>27</sup>. He offers unstinting praise for the work of Pallard, noting that his jewels might be employed for the upcoming marriage of the infant Maria Antonia with Victor Amadeus, Duke of Savoy. Ensenada replied positively to Ulloa's request, granting the passport on 16 February, and the watchmaker accompanied by his son departed from Geneva in May 1750, arriving at the royal palace of Aranjuez on 7 June<sup>28</sup>.

Deluc's rationale for undertaking an unprecedented voyage in a country which, outside of the Cadiz enclave, had been essentially off-limits for artisans of the *Fabrique*, was both political and commercial. He expresses his views to John Williamson, chaplain to the English community in Lisbon, in

a letter of 31 December 1751 written from Madrid. The passage, referring to the proposition of training Spanish apprentices in Geneva, is pertinent to Deluc's endeavor as a whole:

*En effet cette circonstance [ the apprenticeship project ] me paroît très favorable pour concilier à Geneve la bienveillance du roy d'Espagne & faire prosperer nôtre manufacture d'horlogerie en lui procurant une plus grande consommation de ses ouvrages dans ce royaume & c'est le but principal que je m'étois proposé en acceptant l'honneur de cette commission*<sup>29</sup>.

Throughout his journey Deluc acted as an ambassador representing simultaneously his country and the bourgeois faction, conducting himself in a similar manner as the medalist Jean Dassier had in his dealings with Cardinal Fleury during the 1730s. Would he have been aware that a decade earlier, Genevan luxury goods had likewise been employed by patrician magistrates in their negotiations with Ensenada and his colleagues? No doubt this was the case given his cognizance of the workings of the government and the *Fabrique*.

Deluc's engagement in Spain was initially predicated upon evoking interest in the goods of his compatriot Pallard. The plan would seem to have good chances for success, for the watchmaker's characterization of his friend as «*un de plus célèbres jouïllers qu'il y ait en Europe*» was no exaggeration. No monographic studies have ever been appeared on one of the Republic's most renowned and wealthy artists<sup>30</sup>. The prestige Pallard enjoyed was apparent

26 Antonio de Ulloa, Paris, to the Marquess de la Ensenada, Madrid, 14 January 1750 (AGS Marina, leg. 712, ff. 244-246 (cited in J. HELGUERA QUIJADA, «Antonio de Ulloa en la época del Marqués de la Ensenada», *op. cit.*, p. 204).

27 See Hugues JAHIER, «L'horlogerie genevoise dans le Cadix de l'âge d'or: la clientèle Dufalga», *Genava*, n.s., 52, 2004, p. 119-130.

28 Jacques-François Deluc, Aranjuez, to Jean-André Deluc, Geneva, 7 June 1750 (BGE Ms. fr. 2482, p. 1).

29 Jacques-François Deluc, Madrid, to John Williamson, Lisbon, 31 December 1751 (BGE Ms. fr. 2482, p. 96).

30 Corinne Walker refers to Pallard as a «banquier et homme d'affaires» with no mention of his artistic activities (Corinne WALKER, «Les pratiques de la richesse. Riches Genevois au XVIIIe siècle», dans Jacques BERCHTOLD, Michel PORRET (éds.), *Etre riche au siècle de Voltaire. Actes du colloque de Genève (18-19 juin 1994)*, Genève, 1996, p. 157.



to everyone, as was evident from the baptismal ceremony held for his daughter Elizabeth on 2 July 1748 in the Temple de la Fusterie<sup>31</sup>. The child's godmother was none other than the dowager empress of Austria, Elizabeth Christine of Brunswick-Wolfenbüttel (1691-1750), honoring one of her most valued artists who had left Vienna the previous year. Acceding to her request, Premier Syndic Pictet represented her at the ceremony. The temple was full on the occasion, and one can well image that Deluc was in attendance. The empress offered Madame Pallard a diamond worth 20000 gulden as a baptismal gift, and her portrait was proudly displayed in the richly-furnished family residence facing the Rhône<sup>32</sup>.

Nothing to our knowledge has been published concerning Pallard's work for the Habsburg court, yet it is conceivable that a pastel portrait of Elizabeth's daughter Maria Theresa by Jean-Etienne Liotard (1702-1789), executed in Vienna in 1762 and bequeathed to the *Société des Arts* in 1839 by Pallard's granddaughter, provides visual evidence of his artistry (fig. 3)<sup>33</sup>. In the picture Liotard has perfectly captured the simple elegance of the empress's black lace *coiffe* studded with diamonds and her beautiful diamond earring. These elements may well have been executed by Pallard and would explain the portrait's presence in his collection. The work may have been offered to the artist by Maria Theresa herself, or perhaps by Liotard, who would have encountered the jeweler during his initial sojourn in Vienna (1742-1745).

Pallard's most celebrated surviving works were executed for August III, King of Poland (1696-1763), and are on display in the *Grünes Gewölbe* in Dresden<sup>34</sup>. His first major undertaking for the king was the remodeling of the Order of the Golden Fleece, commissioned while he was still in Vienna and delivered on 16 May 1746. As a result of the success of this endeavor Pallard was given the task of modernizing all of the most important court jewels. A decade later, a new version of the same decoration was executed in Brazilian yellow topazes; the king is depicted wearing this jewel in his portrait by Pietro Rotari<sup>35</sup>.

Among other extraordinary works by Pallard for the king is an ornament in the form of a palmette



Fig. 3 Jean-Etienne Liotard, *Maria Theresa, Empress of the Holy Roman Empire* (1717-80), 1762, pastel on parchment, 890 × 725 mm. © Geneva, Cabinet d'arts graphiques des Musées d'art et d'histoire, inv. no. 1839-0010. Photo: Bettina Jacot-Descombes.

consisting of brilliants, gold and silver (1746), and the insignia of the Polish Order of the White Eagle (1746-1749) in brilliants with gold and silver<sup>36</sup>. An additional example of this decoration, in silver and gold garnished with five large and 220 small diamonds as well as ninety-two rubies, is signed and dated «Geneva 1753».<sup>37</sup>

31 «Journal des représentants 1748-1750. Relation de ce que s'est fait et passé à Genève depuis le commencement de l'an 1748» (BGE Ms. fr. 876), p. 20.

32 «L'Imperatrice Douairière aussi avec son cadre» («Inventaire des biens de feu Mons.<sup>r</sup> Jean Jaques Pallard du 20<sup>e</sup> janvier 1777», p. 53, item 5).

33 Musée d'art et d'histoire, Genève, Inv. 1839-10, Marcel ROETHLISBERGER, Renée LOCHE, *Liotard: catalogue, sources et correspondance*, Doornspijk, 2008, cat. 396, fig. 568, p. 544-546.

34 On Pallard's works for Dresden, see Uli ARNOLD, *Die Juwelen Augusts des Starken*, Munich and Berlin, 2001.

35 U. ARNOLD, *Die Juwelen Augusts des Starken*, op. cit., p. 99, figs. 79-81.

36 U. ARNOLD, *Die Juwelen Augusts des Starken*, op. cit., p. 205-6, figs. 180, 182-183.

Pallard's fame was not confined to Austria and Saxony but extended far and wide, linked with the activities of expatriate colleagues in the *Fabrique*, notably Jérémie Pauzié (1716-1779), court jeweler to Elizabeth Petrovna, Empress of Russia (1709-1762). In 1751 during a visit home to Geneva Pauzié met Pallard who agreed to execute a small ring with a diamond-encrusted watch for his patron. Upon his return Pauzié presented the precious object to the empress in the Peterhof, «*qu'elle mit à son doigt, en me disant «Si vous avez eu ma main avec vous, vous n'auriez pas pu la faire plus juste»*»<sup>38</sup>. A gold snuffbox garnished with brilliants made in Paris, bearing the portrait of the Russian empress and valued at 3950 livres in Pallard's inventory, was undoubtedly a gift from the court and constitutes further evidence of his reputation in St. Petersburg<sup>39</sup>.

Regrettably Pallard's extraordinarily good fortune could not bolster Deluc's Iberian venture. It seems that his brilliant success in the courts of Central and Eastern Europe could not be repeated in Bourbon Spain. Initial optimism regarding the sale of Pallard's items soon evaporated. Deluc arrived bearing with him the glowing written recommendations of the Dowager Empress Elizabeth on behalf of her esteemed jeweler. On 28 September 1750 Deluc had the pleasure of informing his colleague that he will receive 660 pistoles for his diamond-studded hunting knife and 12600 for his earrings, adding that the sales were due in no small degree to his own gifts of watches valued at 180 pistoles<sup>40</sup>. A week later however hopes for further sales had vanished. On 5 October Deluc reported that the jewels were deemed too expensive for Spain, and that he had decided to bring the shipment to Lisbon in the expectation of greater success<sup>41</sup>. The Portuguese journey proved equally discouraging. On 19 January Deluc wrote to Pallard informing him that upon inspection the keeper of the Portuguese king's jewels declared that what were purported to be balas rubies were in reality red topazes, and hence not worth the proposed price<sup>42</sup>. All attempts at negotiation proved fruitless and Deluc returned to Madrid having abandoned his efforts. The jewels were finally remitted in June 1752 by Ensenada

to the Spanish ambassador in Paris, the Marquess de Massonés de Soto Mayor<sup>43</sup>.

Furious over what he deemed improper handling of his interests, Pallard entered into a lengthy lawsuit against his erstwhile friend, terminating in 1754 with a decision rendered in Deluc's favor, obtained thanks to Gaspard Sellon's legal assistance<sup>44</sup>. The reasons for the failure of the sales venture cannot be ascertained with certainty. Against Pallard's claims of duplicity and Jean-André Deluc's later comments regarding his father's incompetence in business, we might postulate jealousy of Pallard's success abroad, or rivalries existing between the Spanish Bourbons and the Austrian Habsburgs, their erstwhile opponents in the recently terminated war. Effusive recommendations from the dowager empress in Vienna may not have had the desired effect in a court where the taste for French *objets d'art* predominated<sup>45</sup>. Whereas hopes of obtaining great personal fortune had to be abandoned, Deluc's initiative cannot be dismissed as a failure. Thanks to his own personal diplomacy he was able to accomplish his intersecting goals of improving Geneva's relations with Spain and establishing new markets for the goods produced by its *Fabrique*.

37 U. ARNOLD, *Die Juwelen Augusts des Starken*, op. cit., p. 181, figs. 163-164.

38 See EISLER, *Dossier and sons*, op. cit., p. 362-363.

39 Archives d'Etat de Genève [désormais AEG] Jur. Civ. F 555, p. 34, item 25.

40 Jacques-François Deluc, Madrid, to Jean-Jacques Pallard, Geneva, 28 September 1750 (BGE Ms. fr. 2482, p. 7). Unfortunately we have been unable to obtain information regarding the presence of Pallard's works in the collections of the Spanish Patrimonio Nacional.

41 Jacques-François Deluc, Madrid, to Jean-Jacques Pallard, Geneva, 5 October 1750 (BGE Ms. fr. 2482, p. 12-14).

42 Jacques-François Deluc, Lisbon, to Jean-Jacques Pallard, Geneva, 19 January 1751 (BGE Ms. fr. 2482, p. 26-29).

43 Guillaume-André Deluc, Madrid, to Jean-André Deluc, Geneva, 5 June 1752 (BGE Ms. fr. 2482, p. 146).

44 Jacques-François Deluc, Geneva, to Gerónimo Ortiza, Alicante, 4 October 1754 (BGE Ms. fr. 2482, p. 319).

45 On the acquisition of french jewelry by the Spanish court during this period, see Amelia ARANDA HUETE, *La joyería en la corte durante el reinado de Felipe V y Isabel de Farnesio*, Madrid, 1999, p. 127-136.



### Spanish friends and clients

Deluc's success was predicated on his ability to gain favor in an environment where no one of his background had ever set foot prior to his arrival in 1750. He was obliged to establish a network of friends to further his aims. In doing so he and his son Guillaume-Antoine displayed social skills comparable to those of patricians with long experience in court circles.

Even before arriving in Spain Deluc had established an important contact with Gerónimo Ortiza, royal intendant in Alicante, who possessed good relations in the world of Mediterranean commerce. The prime minister had charged Ortiza with the task of recruiting French experts to bring about improvements to the silk industry in Valencia, in accordance with the reports transmitted from Lyon by Ulloa during his voyage. Deluc had already been introduced to Ortiza through one of the sons of Jean Sellon, active as a banker in Lyon<sup>46</sup>. During the course of his stay in Spain the watchmaker employed Ortiza as a link in a chain of commercial contacts he had established. On 24 October 1750 Deluc wrote to his friend in Alicante, requesting him to expedite the forwarding of a shipment of watches sent from his representatives in Marseilles to his agents in Cadiz; Deluc had intended to travel to the Atlantic port city from Lisbon but had to cancel his plans because of bad weather<sup>47</sup>.

Deluc's most important contact in Madrid was the Basque officer Joaquín José de Aguirre y Oquendo (d. 1764), Ulloa's colleague and major general of the fleet, who served as his principal liaison while the navigator was absent on his tour of Europe<sup>48</sup>. Aguirre was also employed by Ensenada, having been commissioned to codify the royal ordinances of the navy. These were published as *Ordinanzas de SM para el gobierno militar, politico económico de su Armada naval* in 1748. Hence both Ortiza and Aguirre were deeply engaged in Ensenada's program of reform, which Deluc would serve as a preceptor in horology.

At the court the watchmaker and his son succeeded admirably in ingratiating themselves with leading personalities. The site of a number of these encounters was the Royal Palace of Aranjuez south

of Madrid. Built by Philip II, it was considerably amplified under Ferdinand VI. The painted decorations were undertaken by the Venetian artist Jacopo Amigoni (c. 1682-1752), who became one of the Delucs' closest friends<sup>49</sup>. After enjoying considerable success as a fresco painter in Bavaria, Amigoni moved to England in 1730 where he became engaged in a number of important decorative cycles, notably at Thonkerville Palace, Poun House, Moor Park and the opera theater of Covent Garden. In the course of his work in the opera he developed a friendship with Farinelli, then at the height of his career on the London stage. In 1736, the pair traveled to Paris where the artist encountered Charles-Joseph Flipart (1721-1797), the painter and engraver who would become his closest collaborator<sup>50</sup>. Returning to England he met and married Maria Antonia Marchesini *La Lucchesina*, a leading diva who in 1738 created the role of Rosimonda in Handel's *Faramondo*. In 1746 Amigoni together with his wife traveled with Flipart to Spain, reuniting with Farinelli who had been engaged as director of the Madrid Opera.

The Delucs soon became fast friends with the Amigonis with whom they spent many pleasurable hours in their Madrid residence, sharing their box at the opera. Guillaume-Antoine was particularly taken by *La Lucchesina* as he recounts in a letter to Jean-André of 14 February 1752:

*Pour moi, mon cher frere, je suis aussi devenu amoureux, j'ai trouvé une femme qui a fondu mon cœur & cette chere personne est madame Amiconi, née à Lucques. Elle est douée d'un caractère si doux, si affable & si sincère à cela joint beaucoup de bon sens, d'esprit & de discernement, aimant les bonnes choses, & ayant p.<sup>r</sup> Mr Amiconi son époux qui pourroit etre son*

<sup>46</sup> *Ibid.*

<sup>47</sup> Jacques-François Deluc, Madrid, to Gerónimo Ortiza, Alicante, 24 October 1750 (BGE Ms. fr. 2482, p.18-19).

<sup>48</sup> Elena LEGORBURU FAUS, «Joaquín José de Aguirre y Oquendo», *DBE* 1 (2009), p.828.

<sup>49</sup> Macarena MORALEJO ORTEGA, «Jacopo Amiconi», *DBE* 4 (2009), p.106-108 (the name is normally spelled Amigoni in Italian).

<sup>50</sup> Juan CARRETE PARRANDO, «Charles-Joseph Flipart», *DBE* 20 (2009), p.195.

*père & audelà, toute la tendresse, toute l'attention, toute la complaisance & le respect possible. J'ajoute encore à cela qu'elle possède la musique à fond avec une des plus belle voix que j'aye entendue & j'accompagne du clavecin. Quelques fois je fais la partie du violon & je puis dire avoir fait quelques progrès due à sa complaisance & à sa bonté.*

*Toutes ces excellentes qualités lui ont attiré une estime toute particuliere de la part de mon cher père & de la mienne l'amour, mais c'est un amour chaste, pur, en un mot un Amour platonique. Ce soir & demain j'auerois le bonheur avec mon cher pere d'être avec elle à l'opera dans leur loge, car le roi leur en a donné une*<sup>51</sup>.

*Monsieur & Madame Amiconi ont l'estime generale mais ils sont honorés particulièrement de celle de Leurs Majestés & du ministre [Ensenada] qui leur en font ressentir les effets, outre cela Mr Farinelli est leur ami intime*<sup>52</sup>.

The warm spirit of friendship emanating from this text is identical to that which permeates Amigoni's painting depicting himself together with his friends Farinelli, the latter's librettist Pietro Metastasio (1698-1782) and the soprano Teresa Castellini, prima donna of the Madrid Opera (c. 1750-1752; Melbourne, National Gallery of Victoria). The painter's arm is placed around the shoulder of the maestro, who together with Castellini holds a musical score incorporating lyrics by Metastasio. The scene evokes a performance by the singer analogous to that recounted by Guillaume in his letter<sup>53</sup>.

If we consider diplomacy broadly as an aspect of social behavior, we might then view the encounters between the Delucs and the Amigonis in the framework of negotiations encompassing a series of interactions that are at once interpersonal, emotional and aesthetic. The bourgeois Guillaume-Antoine's performances in the intimacy of the Amigoni apartment may then be compared with parallel actions by the equally young patrician Gédéon Turretini in the company of the infante Philip in Chambéry eight years earlier. Both may be said to have advanced Genevan interests vis-à-vis the Spanish court.

The Delucs' appreciation for Amigoni as an artist and friend can be ascertained from their reaction to his death on 22 August 1752, shortly after their return to Geneva. His assistant Charles-Joseph Flipart had offered to supply them with his engraving of the painting that his master had been working on at the time of their departure from Spain. The picture in question, *King Ferdinand VI, Queen Maria Barbara and the Spanish Royal Household*, was left incomplete at Amigoni's death and is known only from the print (fig. 4 next page)<sup>54</sup>. The engraving depicts the king and queen with their court, with Fame shown floating above their heads. In the background at right standing in a balcony is Farinelli and a musician holding a score: the latter is said to be the celebrated composer Domenico Scarlatti (1685-1757), likewise employed by the court. No doubt the Delucs sought to obtain a copy of this extraordinary image not only as memento of their late friend but also as a souvenir of the magnificent performances they had attended in Spain. On 26 April 1754 Jacques-François wrote from Geneva to Jean-André Roch requesting him to ask Flipart if he had completed the work, and, in the case of an affirmative answer, if he could furnish him with two proofs<sup>55</sup>, the delivery of which was acknowledged on 9 August<sup>56</sup>. The presence of the engraving

51 According to Farinelli's own manuscript account, the opera performed on this occasion was *La Armida aplacada* by the Neapolitan composer Giovanni Battista Mele (1693/1694 or 1701-after 1752). Performances were held in the Coliseo of the Buen Retiro palace (Carlo Broschi Barrese (Farinelli), «Descripción del estado actual del Real Theatro del Buen Retiro» (1758), published in facsimile as *Fiestas reales* (Madrid, 1992). I wish to thank María Salud Álvarez Martínez for this reference.

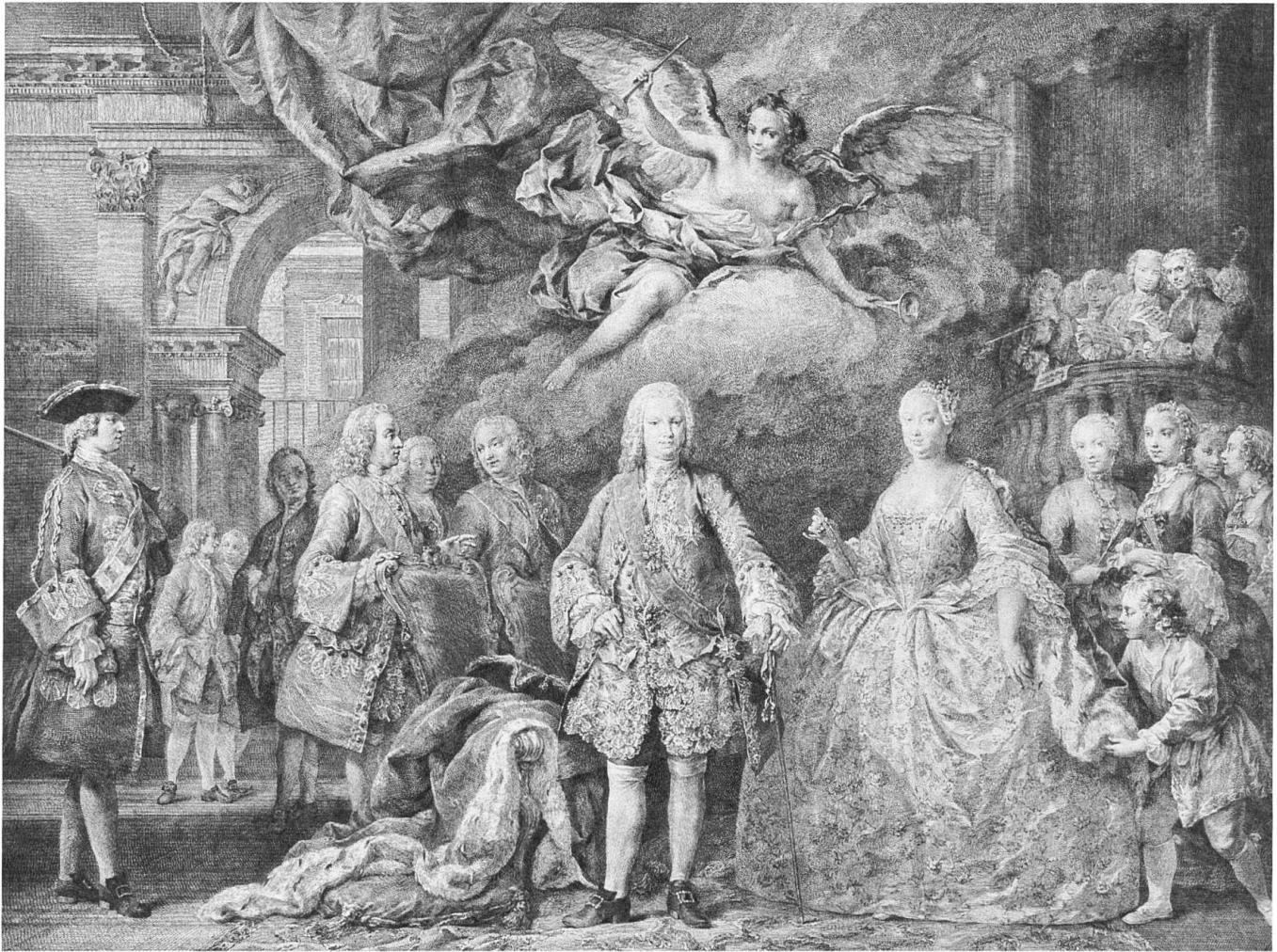
52 Guillaume Antoine Deluc, Madrid, to Jean-André Deluc, Geneva, 14 February 1752 (BGE Ms. fr. 2482, p. 119-120).

53 *The singer Farinelli and friends*, oil on canvas, 172.8 × 245.1 cm (Felton Bequest, 1950, 2226-4); see Ursula Hoff, *European Paintings before 1800 in the National Gallery of Victoria*, Melbourne, 1995, p. 1-3.

54 Ralph Kirkpatrick, *Domenico Scarlatti*, Princeton, 1983, p. 118, figs. 36, 38.

55 Jacques-François Deluc, Geneva, to Jean-André Roch, Madrid, 26 April 1754 (BGE Ms. fr. 2482, p. 301).

56 Jacques-François Deluc, Geneva, to Jean-André Roch, Madrid, 9 August 1754 (BGE Ms. fr. 2482, p. 311).



**Fig. 4** Charles-Joseph Flipart after Jacopo Amigoni, *Ferdinand VI, Barbara de Braganza and their court*, 1752, etching, burin and copperplate engraving, 490 × 640 mm. © Madrid, Museo Nacional del Prado, inv. no. G1557.

after Amigoni's work in Geneva, where contemporary Italian art of any kind was a comparative rarity<sup>57</sup>, attests to a remarkable relationship based on friendship and shared interests.

Throughout their stay the Delucs took evident pleasure in the courtesies they received from the court, reinforcing their self-image as persons of high stature nearly on a par with official state envoys. Upon their arrival in Aranjuez in June 1750, Jacques-François recounted in a letter to Pallard the gracious reception he received from Ensenada, no doubt pleased to renew his contacts with Genevans<sup>58</sup>. On 23 September 1751, Guillaume-Antoine wrote to Jean-André of his audience with the royal family during the fête for the king's birthday, in which he kissed the hands of Their Majesties and the cardinal infante

(Luis Antonio Jaime, Count of Chinchón, 1727-1785) prior to attending the opera<sup>59</sup>. Perhaps the grandest of these occasions was a festival in honor of the king's patron saint Ferdinand which took place at Aranjuez on 30 May 1752. Deluc expresses his extreme delight in the honor he received at the hands of Ensenada, seated at his table in the midst of Spanish grandees

57 On this question, see Mauro NATALE, *Le goût et les collections d'art italien à Genève*, Genève, 1980.

58 Jacques-François Deluc, Aranjuez, to Jean-Jacques Pallard, Geneva, 8 June 1750 (BGE Ms. fr. 2482, p.74-80).

59 According to Luis CARMENA Y MILLÁN, *Crónica de la ópera italiana en Madrid desde el año 1738 hasta nuestros días*, Madrid, 2002, the opera performed on this occasion was *Demetrio* by another Neapolitan composer, Niccolò Jommelli (1714-1774); reference kindly supplied by María Salud Álvarez Martínez.



including the duke of Huéscar. He takes care to emphasize this point in a letter to Isaac Thellusson, the wealthy banker and former Genevan *résident* in France:

*Ce qu'il y a de plus remarquable dans mon dernier séjour de Aranjuez, c'est l'hon.<sup>r</sup> que m'a fait M.<sup>r</sup> le Marquis de La Ensenada de m'inviter lui même à diner pour le lendemain où je fus admis à une table de 24 couverts seul d'étranger parmi des personnes du premier rang, & où S. E. me donna des marques de son attention*<sup>60</sup>.

The seemingly illogical friendship between the haughty Thellusson, avowed enemy of the *représentant* cause, and one of the leaders of the bourgeoisie, appears to have served the interests of both parties. Deluc obviously expected to profit from Thellusson's influence with the Seigneurie and the French government, obtained during his years of service as Genevan *résident* in Paris. The latter in turn hoped to take advantage of Deluc's contacts within the Spanish court for his business affairs, or more specifically those of his son-in-law, Pierre Naville (1714-1790), auditor of the Republic who had married the banker's eldest daughter Anne Sara in 1745<sup>61</sup>. A merchant dealing in *dorures* and lace, Naville sought to utilize Deluc's services in order to sell an extraordinarily expensive bed to Ensenada<sup>62</sup>. We do not know the final result of this negotiation, but we can suppose that the affair was not the only one of its kind involving the watchmaker and his wealthy friend. The contact with the Thellusson family would have enhanced Deluc's image of himself as a man of the world and self-appointed ambassador.

Persuaded of his own worth and buoyed by the social graces and talents of his son, Jacques-François sought successfully to ingratiate himself with members of the court. The good relations established with a wide circle of individuals including the prime minister and the king's artist enhanced his ability to put his plans into effect. From the time of his arrival in Aranjuez in June 1750 he had consistently declined the court's offers of the position of first horologer to the king, Concerns regarding his advanced age and disdain for the quality and character of the clock

and watchmakers of Spain conjoined with a desire to return home reinforced his decision<sup>63</sup>. In the ensuing months Ensenada enlisted him in an alternative scheme: the training of two young Spaniards in the art of watchmaking in his own atelier in Geneva. Bringing foreign trainees of a different faith and nationality to the *Fabrique* was an extraordinary initiative but not without precedent. Deluc would have been aware that in 1734 his brother-in-law, the merchant George-André Merklin, arranged an apprenticeship in his friend Jean Dassier's atelier for a student in medal-making, Johann Leffkyn, on behalf of Antioch Cantemir (1708-1744), Russian ambassador to Great Britain<sup>64</sup>. The success of this venture may well have influenced the decision to accept Ensenada's offer. The new proposal coincided perfectly with the minister's program of training artists and other professionals abroad, notably in Paris<sup>65</sup>. In a letter to Jean-André of 15 November 1751, Deluc gave details of the project which called for apprenticeships of seven years at an annual cost to the court of 1000 écus

60 Jacques-François Deluc, Madrid, to Isaac Thellusson, Geneva, 5 June 1752 (BGE Ms. fr. 2482, p. 141).

61 Naville is chiefly known to scholars for having written a refutation of Rousseau's *Contrat social*. For biographical details, see Jean Fabre's introduction to Pierre NAVILLE, «Examen du Contrat Social de J. J. Rousseau, avec des remarques pour servir d'antidote à quelques principes, publié d'après le manuscrit original par Jean Fabre», *Annales de la Société Jean-Jacques Rousseau*, 22, 1933, p. 17-20.

62 Jacques-François Deluc, Madrid, to Isaac Thellusson, Geneva, 15 May and 5 June 1752 (BGE Ms. fr. 2482, p. 136-137, 141). According to Deluc, the bed had been estimated by a Parisian embroiderer at the considerable price of £ 36 000.

63 Jacques-François Deluc, Madrid, to Jean-André Deluc, Geneva, 15 November 1751 (BGE Ms. fr. 2482, p. 75); Jacques-François Deluc, Geneva, to the count of Lautrec, Paris, 10 January 1753 (BGE Ms. fr. 2482, p. 99).

64 Louis DUFOUR, «Deux contrats de graveurs en médailles genevois», *Bulletin de la Société suisse de numismatique*, 10, 1891, p. 204-209; W. EISLER, *Dassier and sons, op. cit.*, p. 125. Merklin was married to Camille-Antoinette Huaud, a sister of Deluc's wife Françoise.

65 In the same year in which Deluc brought his apprentices to Geneva, Ensenada sent four young men to Paris to study drawing: Manuel Salvador Carmona, Tomás López, Juan de la Cruz Cano and Alfonso Cruzado (Fernando SOLER JARDÓN, «El arte tipográfico bajo en reinado de Carlos III», *Boletín de la Real Academia de la Historia*, 186, 1989, p. 104).

neuf<sup>66</sup>. On 20 December he informed the premier syndic and *commis sur l'art de l'horlogerie* Jean-Louis Chouet (1678-1756) of the plan<sup>67</sup>. Deluc took pains to gain the support of this key figure who was known to have been partial to the bourgeoisie, incurring the wrath of his colleagues in the *Conseil* for a number of his positions<sup>68</sup>. He expresses his belief that the venture will help to overcome Spanish prejudice against Genevan horology, in part due to a number of poorly made watches, but more generally provoked by professional jealousy of the advanced state of the art in the Republic. It was his fervent hope that once his students became watchmakers to the king, confidence in their ability would extend beyond the court to the country as a whole and have positive repercussions for Genevan industry.

On 28 December 1751, Ensenada addressed a gracious letter to the *Conseil* announcing the project:

*Magnifiques Seigneurs*

*Le roy mon maitre a pris le parti d'envoyer dans  
vôtre ville deux jeunes gens de ses sujets pour y  
apprendre l'horlogerie sous la direction,  
et conduite de Mr De Luc votre citoyen dont  
l'habilité est si recommandable à S. M., qu'il a  
mérité sa confiance pour le même effet.  
Et d'autant que l'intention du roy est d'employer  
ces deux gens dans sa chambre des qu'ils seront  
bien instruits dans cet art, Sa Maj.te m'ordonne  
de vous requérir de sa part de vouloir bien  
accorder votre protection, & toutes les facilités  
nécessaires, tant au d.<sup>t</sup> S.<sup>r</sup> De Luc, qu'aux deux  
jeunes gens ses disciples, afin que les uns, et les  
autres puissent remplir d'autant mieux l'attente  
de Sa Majesté: et soyés très persuadés qu'Elle  
aura en revange pour Votre Illustre Magistrat les  
égards les plus sensibles en tout occasion, et qu'en  
mon particulier je souhaite celles de vous servir,  
et vous faire connoître les sentiments de  
consideration avec les quels j'ai l'honneur d'être*

*Magnifiques Seigneurs*

*au Buen Retiro le 28.<sup>e</sup> Xbre 1751*

*Votre très humble, et très obeïssant serviteur*

*Le Marq.<sup>es</sup> De la Ensenada<sup>69</sup>*

The Seigneurie responded positively on 17 January 1752<sup>70</sup>. Four days later, Chouet replied to Deluc's letter conveying the approval of the watchmakers' corporation, pleased with the potential access to Spanish markets offered by the plan<sup>71</sup>. Encouraged by the support of the government, Deluc began to contemplate his return to Geneva with his students and the undertaking of commissions for watches received from the court. The task of satisfying a royal patron must have seemed daunting to a master who for all of his knowledge and skills had never served such a prestigious client. Anticipating the difficulties posed by the undertaking, a week prior to departing from Madrid he requested the assistance of a friend and compatriot, the celebrated watch and clockmaker Jean Romilly (1714-1796)<sup>72</sup>. At the age of twenty Romilly emigrated from Geneva to Paris, where he established himself as one of the capital's most distinguished practitioners and theoreticians. A friend of Rousseau, he was a prominent figure in French intellectual circles, contributing several articles on horology for the *Encyclopédie* of Diderot and D'Alembert. Of particular relevance were his technical innovations which permitted him to manufacture watches capable of running for eight days. This was precisely the task confronting Deluc in his commission for the king of Spain. Not long before his departure from Madrid he wrote to Romilly attempting to convince him to return to Geneva and aid him in the production of watches for the court, addressing him in flattering terms: «J'ai planté une vigne dans ce païs avec beaucoup de soin, de peines & de dépenses, mais elle a besoin d'un vigneron tel que vous pour la

66 Jacques-François Deluc, Madrid, to Jean-André Deluc, Geneva, 15 November 1751 (BGE Ms. fr. 2482, p.74-78).

67 Jacques-François Deluc, Madrid, to Jean-Louis Chouet, Geneva, 20 December 1751 (BGE Ms. fr. 2482, p.86-88).

68 Jean PICOT, *Histoire de Genève*, t.3, Genève, 1811, p.262.

69 AEG RC 252, 1752, p.36.

70 The Petit Conseil, Geneva, to the Marquess de la Ensenada, 17 January 1752 (copy in BGE Ms. fr. 2482, p.108-109).

71 Jean-Louis Chouet, Geneva, to Jacques-François Deluc, Madrid, 21 January 1752 (copy in BGE Ms. fr. 2482, p.110-111).

72 On Romilly, see Gillian WILSON et. al., *European Clocks in the J. Paul Getty Museum*, Los Angeles, 1996, p.193-195.

*cultivar*»<sup>73</sup>. Deluc wrote at the same time to his nephew Jacques Roux, employed as a finisher in Romilly's atelier, expressing confidence in his talents and entreating him to return home to assist him, as his failing eyesight inhibited him greatly<sup>74</sup>. Nothing came of the proposed partnership, and we do not know if any assistance was forthcoming from Roux, whose ill health may have prevented him from joining his uncle's workshop. In any case, Romilly's eight-day movement may well have provided a model for the mechanism of the work presented by Deluc to King Ferdinand four years later.

A week after the grand fête at Aranjuez of 30 May 1752, the Delucs bid farewell to the Amigonis and departed from Madrid for Geneva with their two young companions, Francisco Xavier de Moya (c. 1737-1760) and Manuel Zerella Icoaga, both of whom would have been approximately fifteen years of age. Upon arrival their master was pleased with their initial enthusiasm and assiduity, writing to Ulloa on 11 August that «*les jours de fêtes leur font autant de peine pour la privation de travaille qu'ils font à d'autres de plaisir*»<sup>75</sup>. Deluc took advantage of his engagement to promote the *Fabrique* to his friend and patron. In letters to Ulloa addressed in March 1753 and again in July of that year he praises the virtues of Jacques-Antoine Dassier, recently returned from England where he was engaged at the Royal Mint in order to visit his father Jean<sup>76</sup>. He reminds his correspondent of a promise given prior to his departure for Geneva to commission medals of the king and Ensenada from Jacques-Antoine, for which profile medallions by the court sculptor Gian Domenico Oliveri (1708-1762) would serve as models<sup>77</sup>. The artist's talent exceeded not only his father's but also those of his brother (Antoine), who had been proposed as a court medalist. Jacques-Antoine confided in Deluc that if the prime minister so wished, he would abandon his post in London and move to Madrid where he would not only engrave medals but also instruct young Spaniards in his art. To impress Ulloa with his talents Deluc sent him three medals from his hand of English personalities for his cabinet<sup>78</sup>. Nothing came of this project, and three years later Jacques-Antoine

departed for St. Petersburg to take up the post of medalist to the Empress Elizabeth<sup>79</sup>. Nevertheless, the works of the Dassiers would continue to play a role in the history of the medal in Spain, no doubt due to the influence of Ulloa and others of his circle. Their most famous series, sixty works tracing the history of the Roman Republic from Romulus to Augustus (1748), would be employed as teaching tools by the founder of Spanish medal-making of the Enlightenment, Tomás Francisco Prieto (1716-1782), chief engraver of the Real Casa de la Moneda and professor of engraving at the Real Academia de Bellas Artes de San Fernando<sup>80</sup>.

### Ortiza as friend and colleague of Deluc; other Spanish visitors to Geneva

As Deluc commenced his tutoring of young watchmakers, his friend and colleague Gerónimo Ortiza was engaged in a parallel task for Ensenada: the recruiting of French specialists for the Spanish silk industry. Valencia, the center of production, had enjoyed royal protection for years, but a sustained effort was now required to surmount two major inconveniences: the demoded style of the designs and the excessive weight of the products (twenty percent

73 Jacques-François Deluc, Madrid, to Jean Romilly, Paris, 5 June 1752 (BGE Ms. fr. 2482, p. 144).

74 Jacques-François Deluc, Geneva, to Jacques Roux, Paris, 24 July 1752 (BGE Ms. fr. 2482, p. 154-157).

75 Jacques-François Deluc, Geneva, to Antonio de Ulloa, Madrid, 11 August 1752 (BGE Ms. fr. 2482, p. 162).

76 Jacques-François Deluc, Geneva, to Antonio de Ulloa, Madrid, 30 March and 27 July 1753 (BGE Ms. fr. p. 238, 262).

77 On Oliveri, see Carmen CUESTA MELLADO and Carlos MURIEL CEGARRA, «Gian Domenico Oliveri», *DBE* 38, 2009, p. 468-469.

78 On Jacques-Antoine Dassier's medals of famous Britons, see W. EISLER, *Dassier and sons*, *op. cit.*, p. 269-313.

79 On Jacques-Antoine's medals for the Russian court, see W. EISLER, *Dassier and sons*, *op. cit.*, p. 355-374.

80 For this series, see W. EISLER, *Dassier and sons*, *op. cit.*, p. 173-268. Regarding the presence of these medals in Prieto's collection, see R. JAVIER GIMENO PASCUAL, «Nacimiento de la medalla de arte española en el siglo XVIII», dans *La medaglia neoclassica in Italia e in Europa. Atti del quarto convegno internazionale di studio sulla storia della medaglia 20-23 giugno 1981*, Udine, 1984, p. 254.



heavier than foreign goods). The prime minister undertook two measures to remedy the problem. The first was financial and involved one of the most important institutions of the period: the *Real Fábrica de los Cinco Gremios* [ Guilds ] of Madrid. Founded in 1686 under Charles II, it played an important role in providing funds for manufacturing under Ensenada. The other was the recruitment of specialists from Lyon, traditional center of the French silk industry. Following the recommendations made by Ulloa during his European voyage, Ortiza traveled to Lyon in 1753 to obtain the services of talented collaborators. The foremost member of the group was a well-known manufacturer, Jean-Baptiste Phelipot, who would later oversee production in Valencia. Ortiza likewise recruited the gifted draftsmen René-Marie Lamy, Jean-Joseph Georget and Pierre Sauvan<sup>81</sup>.

At the beginning of March 1753 Ortiza traveled from Lyon to visit Deluc<sup>82</sup>. We can be quite sure that Sauvan was in his company, for according to Michel Zylberberg a contract was signed on 16 March in Geneva between the draftsman and the representative of the Marquess de la Ensenada, most certainly Ortiza<sup>83</sup>. The agreement called for Sauvan to assume the direction of a school and academy for the design of silk fabrics in Valencia. We do not know why the signing took place in Geneva, but perhaps it was thought best not to arouse suspicions of French authorities who looked unfavorably upon the loss of skilled hands in their industries.

Ortiza was not the only significant Spanish personage to visit Deluc during this period. In January 1754 Ensenada's son Juan Bautista Torres returned to Geneva, four years after his sojourn in the company of Ulloa. He was joined by William Bowles (c. 1714-1760), royal professor of natural history in Madrid and one of the most important scientists in Enlightenment Spain<sup>84</sup>. Born in County Cork, Ireland, Bowles arrived in France in 1740 to study chemistry, anatomy and metallurgy. Ulloa met him in Paris during the course of his European voyage, persuading him to enter the service of King Ferdinand as an expert in mining and to establish a chemistry laboratory as well as a cabinet of natural history. Arriving in Madrid in 1752,

he traveled extensively throughout Spain, inspecting mines on behalf of Ensenada. His classic work, *Introducción a la Historia Natural y a la Geografía Física de España*, published in 1775, appeared in French the following year. We can be certain that the Deluc brothers profited from the visit of the two men. Four months later, Jacques-François wrote to Torres in Paris, requesting him to procure fossils for his sons from the environs of the capital, in particular a bone specimen found in a limestone quarry. He likewise comments on the positive impact of Bowles upon the young men, citing his discoveries of fossilized marine plants in the marble destined for the façade of the Cathedral of St. Pierre, completed two years later after designs by Benedetto Alfieri (1699-1767):

*La découverte que fit Mr Bowls de quelques plants marines dans le marbre destiné à la construction de la face de nôtre cathedrale, a donné lieu à mes fils de faire des recherches, qui n'ont pas été infructueuses, car ils se sont procurés des morceaux presque entièrement composés de ces plantes & de plusieurs espèces avec quelques coquillages*<sup>85</sup>.

Presumably these specimens would have found a place in the famous natural history cabinet formed in Geneva by the two brothers.

81 On the recruitment by Ortiza of silk workers from Lyon for Valencia, the basic study is Luis PÉREZ BUENO, «Fábricas de tejidos de seda, oro y plata di Valencia. Su relación con los Cinco Gremios Mayores de Madrid. Años 1753, 1754 y 1755», *Archivo español de arte*, 19, 1946, p. 326-339. See also Santiago RODRÍGUEZ GARCIA, *El arte de las sedas valencianas en el siglo XVIII*, Valencia, 1959, p. 85-93; Y. BOTTINEAU, *L'art de cour dans l'Espagne des Lumières*, op. cit., p. 221-225.

82 Ortiza's visit is referred to in a letter by Deluc to the *négociant* Antoine Blusset in Lyon of 10 March 1753 (BGE Ms. fr. 2482, p. 233).

83 Michel ZYLBERBERG, *Une si douce domination: les milieux d'affaires français et l'Espagne vers 1780-1808*, Paris, 1993, p. 99.

84 Jacques-François Deluc, Geneva, to Joaquín José de Aguirre, Madrid, 11 January 1754 (BGE Ms. fr. 2482, p. 283). On Bowles, see Francisco PELAYO LÓPEZ, «Guillermo (William) Bowles», *BDE*, 9, 2009, p. 328-331.

85 Jacques-François Deluc, Geneva, to Juan Bautista Torres, Paris, 14 June 1754 (BGE Ms. fr., 2482, p. 305). On the façade of Saint-Pierre, see Amedeo BELLINI, *Benedetto Alfieri*, Milan, 1978, p. 172-182.

His Spanish guests would have witnessed Deluc hard at work on his pieces for the court, in spite of age, infirmity and the absence of a collaborator on the level of his friend Romilly. In October 1753 he was able to send an alarm watch to Aguirre together with five silver watches for others in his entourage, notably his secretary and Ulloa's intendant<sup>86</sup>. However the most important commission was for the king himself. Deluc announced its completion in a letter of 2 July 1756 to Juan Francisco de Gaona y Portocarrero, Conde de Valdeparaíso (1696-1760), finance minister in the cabinet of Ricardo Wall who had replaced Ensenada two years earlier as head of the government<sup>87</sup>. The object and an accompanying *mémoire* had been sent to Francisco Ventura de Llovera, treasurer of the king in Paris, who transferred it to Aguirre in Madrid for delivery to Valdeparaíso. Deluc describes it as a «*montre d'observation à huit jours*», placing it within a typology of modern scientific instruments being produced during these years. In the copy of the *mémoire* attached to the letter he cites comparable works by contemporaries which he had examined: a watch by the famous French master Pierre le Roy (1717-1785) in the possession of Ulloa, whose mechanism had ceased to function, and another by John Ellicott. As we have already noted, Deluc's friend and would-be collaborator Jean Romilly also produced instruments of this sort.

The object was preserved in the horological cabinet of the Royal Palace of Madrid and is listed in the inventories drafted in 1788-1789 under Deluc's name as «*Una muestra à segundos de ocho dias de cuerda, caja torneada*», valued at 2100 reales (a second and unidentifiable watch by the Genevan master, described simply as «*Otra con un caja lisa*», is valued at 1200 reales or roughly half the price)<sup>88</sup>. The inventory was signed by Manuel Zerella, Deluc's former pupil and curator of the collection.

Whereas Deluc had reason to be satisfied with the works he was able to furnish the court, he was less than pleased with the progress of Moya and Zerella. At first things seem to run smoothly for his *Españolitos* (as he calls them in a letter to Ensenada's

son)<sup>89</sup>; by October 1754 he was sufficiently confident in their abilities to be able to send some samples of their handiwork to Madrid<sup>90</sup>. Four years later they had become considerably less cooperative and the project began to unravel, well before the death of Moya in July 1760 and the departure of Zerella in October of that year brought it to an end. The problems were provoked to a considerable degree by the inherent conflicts of values encountered by Deluc, a dedicated Calvinist republican from Geneva, in attempting to act as an agent of His Catholic Majesty's industrialization program.

In a lengthy letter to Valdeparaíso of 22 September 1758, Deluc rebuts complaints addressed to the latter by his students concerning their alleged maltreatment at his hands<sup>91</sup>, later expounding on the same theme in a missive to Valdeparaíso's successor Leopoldo de Gregorio y Masnata, Marquess of Esquilache (1700-1785), dated 28 November 1760<sup>92</sup>. The disobedience and lack of industriousness exhibited by his apprentices increased after they were prohibited to attend the theatrical performances of a French troupe in neighboring Carouge. As a consequence they had written to the minister in the hope of terminating their studies. According to Deluc, the young men had not understood the gravity of

86 Jacques-François Deluc, Geneva, to Joaquín José de Aguirre, Madrid, 26 October 1753 (BGE Ms. fr., 2482, p. 275-277).

87 Jacques-François Deluc, Geneva, to the count of Valdeparaíso, Madrid, 2 July 1756 (BGE Ms. fr., 2482, p. 338-342). On the fall of Ensenada, see Diego TÉLLEZ ALARCIA, *Ricardo Wall. Aut Caesar aut nullus*, Madrid, 2008, p. 171-191.

88 Fernando FERNÁNDEZ-MIRANDA Y LOZANA (éd.), *Inventarios reales: Carlos III, 1789-1790*, 1, Madrid, 1988, p. 115, nos. 1069-70.

89 Jacques-François Deluc, Geneva, to Juan Bautista Torres, Paris, 14 June 1754 (BGE Ms. fr. 2482, p. 306).

90 Jacques-François Deluc, Geneva, to Gerónimo Ortiza, Alicante, 4 October 1754 (BGE Ms. fr. 2482, p. 319).

91 Jacques-François Deluc, Geneva, to the count of Valdeparaíso, Madrid, 22 September 1758 (BGE Ms. fr. 2482, p. 351-354).

92 Jacques-François Deluc, Geneva, to the marquess of Esquilache, Madrid, 28 November 1760 (BGE Ms. fr., 2482, p. 388-391). On Esquilache, see the article by Didier OZANAM, *DBE*, 24, 2009, p. 663-666.

attending spectacles that were anathema to the very principals governing the Republic. One of the students, presumably Moya, had even taken up a dangerous relationship with a comedienne! The minister, who had difficulty comprehending why Deluc was so adamantly against such apparently innocent pleasures, may have reacted differently had he been aware of the intense local polemics surrounding the issue.

The question of the theater in Geneva has been studied most recently by Rahul Markovits<sup>93</sup>. The evil represented by the stage was a basic tenet of the Republic since its inception. Initially prohibition was motivated by religion, and ordonnances against its establishment within its territories had been in place since 1617. After the crisis leading to the Mediation of 1737-1738 the nature of the issue changed, becoming more political. The *représentants* opposed the introduction of the *comédie française* advocated by Voltaire and his allies within the Republic as an aberrant form of socialization undermining the traditional *cercles* so admired by Rousseau. Deluc, alleged leader of the bourgeois party, was considered by his opponents as the champion of the anti-theater movement. In an article of 26 April 1758 which appeared in the *Journal Helvétique* he condemns actors not only from a moral perspective as degenerates but also politically. He states that Genevan morality was governed by the laws and customs of a small state, contrary to the permissive behavior prevalent in large cities such as Paris. In doing so he placed the question of the theater in a republican context, a position expressed likewise by his friend Rousseau in his *Lettre à d'Alembert* published in October 1758. During the following decade Deluc remained identified with the issue, and in 1768 was accused of setting fire to the Theater of the Bastions, the first permanent stage ever established within the city walls.

Deluc's project of reconciling Genevan and Spanish interests, bolstered by his undeniable social and diplomatic skills, nearly foundered as a consequence of incompatible cultural and political values. An enthusiastic spectator at one of Europe's finest operatic stages in Madrid, he could not tolerate persons belonging to a different culture participating in

theatrical events that in his view infringed upon the rights of Genevan citizens.

The end of the experiment became inevitable following the death of Francisco de Moya. His long ordeal is described in a letter by Guillaume-Antoine Deluc to Jean-André Roch in Madrid, with whom he and his father had developed strong ties during their Spanish sojourn<sup>94</sup>. The best efforts of the physician engaged by the Delucs, the celebrated Genevan savant Charles Bonnet (1720-1793), proved fruitless and the young man succumbed on 14 July 1760. The family took some solace in Moya's expressions of regret for his past behavior toward his master prior to his death. Prohibitions against the burial of persons not of the Protestant faith within the city walls led to inhumation in the neighboring village of Le Grand-Saconnex, at the time part of France<sup>95</sup>.

According to the Delucs, Moya's agonizing demise did not alter the comportment of Zerella. The student-teacher relationship became increasingly conflictual, culminating in the young man's departure for Madrid on 24 October. In his letter to Esquilache of 28 November 1760 his master expresses regrets that despite all of his efforts Zerella had not yet acquired the requisite training to become an excellent horologist<sup>96</sup>.

If Zerella harbored any ill will towards his teacher there is no trace of any such sentiments in the accounts of his career. Regardless of whether his level of competence would have satisfied Deluc's exigencies, he does not seem to have suffered from any deficiencies in his training. On the contrary he would become one of the best watchmakers in Bourbon Spain,

93 Rahul MARKOVITS, «L'incendie de la comédie de Genève (1768): Rousseau, Voltaire et l'impérialisme culturel français», *Revue historique*, 4, 2009, p. 831-873.

94 Guillaume-Antoine Deluc, Geneva, to Jean-André Roch, Madrid, 4 July 1760 (BGE Ms. fr. 2482, p. 366-367).

95 Jacques-François Deluc, Geneva, to Joaquín José de Aguirre; Guillaume-Antoine Deluc, Geneva, to Jean-André Roch; both Madrid, 18 July 1760 (BGE Ms. fr. 2482, p. 367-372).

96 Jacques-François Deluc, Geneva, to the marquess of Esquilache, Madrid, 28 November 1760 (BGE Ms. fr. 2482, p. 389).

playing a significant role in the development of the country's arts and industries<sup>97</sup>.

After returning to Madrid Zerella opened his own workshop, establishing an important clientele among leading figures in the aristocracy, the church and the governmental bureaucracy. No doubt contacts with Deluc's friend Aguirre, a fellow Basque, facilitated his advancement. In 1769 he presented to Ulloa's colleague Jorge Juan a project for a marine chronometer designed to measure longitude at sea. A decade later Charles III named him *Reloxero de Camara*. For the next twenty years he was entrusted with the upkeep of the royal collection of clocks and watches.

In addition to his personal workshop and his activities for the court Zerella received commissions from prominent Bourbon institutions. From 1776 to 1783 he was ordered by the *Junta del Comercio y Moneda* to oversee the *Real Escuela de Relojería* which had been established by the French horlogers Philippe and Pierre Charost in 1771. One of his most important tasks involved the *Real Sociedad Económica Matritense de Amigos del País*. Similar to parallel institutions established throughout Europe, it was created under Charles III to promote the arts, agriculture and industry. Zerella belonged to its commissions judging projects to establish schools and factories. In 1777 it began to offer prizes for the best works by clock and watchmakers. Zerella was named as one of the judges for the competitions which were held until the French occupation of Spain in 1808.

In the course of his service to the king and his institutions, Zerella was likewise engaged in studies and reflections regarding his profession, culminating in the publication of a treatise in 1789: *Tratado general y matemático de relojería*. In the full title its author underscores his training in Geneva on behalf of Ferdinand VI<sup>98</sup>. He likewise mentions in the text that he had collaborated on the production of Deluc's eight-day watch, providing a description of its mechanism<sup>99</sup>.

The *Tratado* should be seen as part of a concentrated effort on the part of the government and the Enlightenment elite to amplify the number and

quality of technical manuals. It is divided into two parts: in the first section the author considers the manner of fabricating distinct types of watches, discussing possible malfunctions and their solutions. The second part is devoted to subjects deemed essential for a total mastery of horology: arithmetic, algebra, geometry, astronomy, geography, physics, mechanics, music and drawing. Twenty-two plates fully elucidate the textual explanations. In the course of his discussions Zerella demonstrates that during his apprenticeship he was fully conscious of the multiple activities occurring within the Deluc household:

(...) estando yo en Ginebra, Monsieur de Luc, hijo de mi maestro, gran matemático y físico, inventó un barometro portátil, que mereció los aplausos de la Academia de París, con el qual en qualquier montaña o llano, se puede saber la altura de aquel sitio sobre el nivel del mar<sup>100</sup>.

## Summary and conclusion

The citation of Jean-André Deluc's invention within the learned treatise by his father's pupil constitutes

97 On Zerella, see Antonio Manuel del MORAL RONCAL, «Manuel Zerella Icoaga, un relojero vasco en la corte del siglo XVIII», *Boletín de la Real Sociedad Bascongada de los Amigos del País*, 53, 1997, p. 159-171. I wish to thank Professor Moral Roncal for supplying a copy of his article.

98 *Tratado general y matemático de relojería, que comprende el modo de hacer relojes de todas clases, y el de saberlos componer y arreglar por difíciles que sean, acompañado de los elementos necesarios para ella, como son aritmética, álgebra, geometría, maquinária, música y dibujo; precisos para poseer á fondo el noble arte de la relojería. Su autor Don Manuel de Zerella y Ycoaga, relojero de cámara de S. M. (que Dios guarde), enseñado en Ginebra á expensas del Sr. Rey Fernando VI, é individuo de las Reales Sociedades Matritense y bascongado. Con superior permiso, Madrid, En la Imprenta Real, 1789).*

99 ZERELLA, *Tratado*, op. cit., p. 98.

100 ZERELLA, *Tratado*, op. cit., p. 364. On Jean-André Deluc's barometers, see Marc J. RATCLIFF, «Gens de haut et gens du bas: Deluc and the politics of accuracy» dans J. L. HEILBRON et R. SIGRIST (éd.), *Jean-André Deluc: historian of earth and man*, Genève, 2011, p. 46-62 et Marc J. RATCLIFF, «Patriciens et praticiens: Jean André Deluc entre Fabrique et science», dans M. J. RATCLIFF et L.-I. STAHL GRETSCH, *Mémoires d'instruments: une histoire des sciences et des savants à Genève, 1559-1914*, Genève, 2011, p. 102-111.



a final testament to exchanges between Geneva and Spain initiated during the War of the Austrian Succession. If the clash between two entities separated over centuries as much by divergent cultural, social, political and religious identities as by geography was provoked by a European conflict, their ensuing dialogue was enhanced by the employment of the *Fabrique's* products. Strongly attracted by the watches, medals and other objects they received as diplomatic gifts from Genevans, they sought to comprehend the secrets governing their design and manufacture.

In our study we have considered three distinct episodes within the history of these encounters. The process began in 1743 with the offering of watches as gifts by emissaries of the Republic's patrician government to officials in Savoy. The chief negotiator on the Spanish side, the Marquess de la Ensenada, was undoubtedly impressed by the quality of objects offered to his colleagues. Three years later, Jean Dassier's coronation medal for Ferdinand VI, a diplomatic gesture by a Genevan bourgeois artist, constituted yet another prestigious gift to a regime incapable of producing an equivalent object. The final episode commenced with the clandestine voyage of the explorer and scientist Antonio de Ulloa to the Republic, dispatched there by Ensenada, now prime minister, to uncover information concerning the secrets of the *Fabrique*. During his visit Ulloa met Jacques-François Deluc, master watchmaker and political leader of the bourgeois faction. The latter's desire to establish new markets for himself and Geneva's horological industry coincided with Ensenada's program of improving Spanish manufacturing. Deluc's two-year sojourn in Iberia, and his subsequent recruitment by the prime minister as a preceptor for student watchmakers marked the beginning of a final stage of the dialogue, ultimately crowned by the success of his pupil Manuel Zerella in planting the roots of a native watchmaking industry during the reign of Charles III.

The voyage of Jacques-François Deluc to Iberia remained a forgotten episode in the histories of Geneva and horology. It was eclipsed by the far more famous sojourn of Pierre Jaquet-Droz (1721-1790),

the extraordinary clockmaker from La Chaux-de-Fonds, to Madrid in 1758-1759, for which it most certainly served as the prelude. This expedition was initiated by George Keith (1692/3? -1778), *Milord Maréchal*, governor of Neuchâtel for Frederick II, King of Prussia<sup>101</sup>. Keith, who had resided for years in Spain, recognized Jaquet-Droz's talents and put him in contact with Ricardo Wall and Jacinto Jover, the son of the Spanish ambassador to Switzerland who served as his host in Madrid. No doubt political motivations paralleling those of Geneva underscored the initiative of *Milord Maréchal*, eager to ingratiate himself and his sovereign Frederick II with the Spanish court. The most precious object brought to Spain by Jaquet-Droz, a remarkable astronomical clock surmounted by a flute-playing shepherd known as *El Pastor*, was accompanied by five equally inventive automates. The lot was presented to the king at Villaviciosa de Odón on 4 September 1758 during a spectacular demonstration which greatly impressed Farinelli, director of the opera beloved by the Delucs. Serving as chief liaison for these Protestant visitors to the court of His Catholic Majesty was Jean-André Roch, the Genevan-born chaplain of the Dutch Embassy and the friend and confidant of Jacques-François and his son.

Whereas the *Pastor* of Jaquet-Droz for Ferdinand VI enchants present-day visitors to the Royal Palace of Madrid, Jacques-François Deluc's watch for the same monarch has long since vanished. Ironically, it was Deluc's pupil Zerella who succeeded in maintaining the *Pastor* in good working order in his capacity as curator of the royal collection<sup>102</sup>.

101 See André TISSOT, *Voyage de Pierre Jaquet-Droz à la cour du roi d'Espagne 1758-1759: d'après le journal d'Abraham Louis Sandoz, son beau-père*, Neuchâtel, 1982. Tissot's publication does not constitute a scholarly edition as it lacks adequate notes and commentaries. The role of Keith and his contacts with Wall for Droz's mission has been underscored by Diego TÉLLEZ ALARCIA in his *Absolutismo e ilustración en la España del siglo XVIII. El despotismo ilustrado de D. Ricardo Wall*, Madrid, 2010, p. 204-205. Keith himself undertook a diplomatic voyage to Madrid three months after the horologist's return to Neuchâtel (Diego TÉLLEZ ALARCIA, *El ministerio Wall. La «España Discreta» del «Ministro Olvidado»*, Madrid, 2012, p. 185-191).

102 A. M. MORAL RONCAL, «Manuel Zerella Icoaga», *op. cit.*, p. 162.

No doubt Jaquet-Droz was made aware of the voyage of his predecessor by Roch, although no reference to it can be gleaned from the surviving accounts of his journey, proving once again that written documents, however valuable, cannot fully explicate any particular historical episode. As this essay has hopefully helped to demonstrate, broad-based studies of a wide range of contemporary events are required to elucidate the past. These should moreover be grounded in a multiplicity of historical disciplines and a variety of sources. We have attempted to apply these principals in our investigation of Deluc, considered not merely as a friend of a profound thinker, but as an actor of importance for political, cultural, social and economic history.