

POST-WAR BOTANY

THE JOURNEY MADE BY JOAN SALVADOR AND ANTOINE DE JUSSIEU AROUND SPAIN AND PORTUGAL

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Between 1716 and 1717, Joan Salvador i Riera, an apothecary from Barcelona and Antoine de Jussieu, a professor of botany at Le Jardin du Roi in Paris, travelled the roads of Spain and Portugal, sometime by calash, sometimes on mule back, to make «botanical observations». This article provides a brief overview of the Salvador family and a glimpse of the journey made by these two naturalists.

Keywords: Joan Salvador, Antoine de Jussieu, Spain, Portugal, travel.

■ A FAMILY OF ENLIGHTENED APOTHECARIES

In the early seventeenth century, the young Joan Salvador i Boscà (1598-1681), full of hope, left his hometown, Calella, for the jostling city of Barcelona. At just 18 years of age, he was admitted to the College of Apothecaries and at 28, in 1626, he married the daughter of his benefactor, the wealthy apothecary Gabriel Pedrol. He had been lucky. His enthusiasm went beyond his officinal-related obligations and he explored various fields of natural history and began a herbarium, as well as a collection of curious natural objects (De Bolòs, 1946). Shortly before his death, he was visited by the 24-year-old botanist Joseph Pitton

«JAUME SALVADOR I PEDROL'S REPUTATION WAS WIDESPREAD, AND THUS TOURNEFORT MADE HIS WAY TO THE SALVADORS' HOME IN 1681, WHEN OLD JOAN SALVADOR WAS STILL ALIVE»

de Tournefort (1656-1708) from Provence, who was making his first exploratory expedition to the Iberian Peninsula. Thus began the Salvador family's naturalist vocation (Font i Sagué, 1908).

Joan's son, Jaume Salvador i Pedrol (1649-1740), took over the apothecary's work, inheriting both the shop and the collections. He also inherited his father's curious spirit and collector's obsession. However,



Joan Salvador i Riera in an oil painting from his epoch.

unlike his father, who was basically self-taught, Jaume received a formal education. In fact, he was educated in Montpellier, which was then the hub of medicine, chemistry and natural science in the western Mediterranean. His reputation was widespread, and thus Tournefort made his way to the Salvadors' home in 1681, when old Joan Salvador was still alive. Indeed, on his way there, he was robbed by the *angelets de les*



The Salvador family were undoubtedly the most famous Catalan naturalists. Engravings of the Salvador Museum founders and those who maintained it, from bottom to top and numbered: **1.** Joan Salvador i Boscà (1598-1681). **2.** Jaume Salvador i Pedrol (1649-1740). **3.** Joan Salvador i Riera (1683-1726). **4.** Josep Salvador i Riera (1690-1761). **5.** Jaume Salvador i Salvador (1740-1805). **6.** Joaquim Salvador i Burgès (1766-1857).

*Alberes*¹ and it is said that he had to hide his money inside the black bread he carried in his rations, because there were thieves and brigands everywhere. These were not good times for travellers, especially if they got entangled in wild and little-frequented places, as those daring naturalists did. However, on one of these expeditions, Tournefort reached Valencia, accompanied by Jaume Salvador. In gratitude, Tournefort maintained a close friendship with him throughout his lifetime, and was later to put his son, Joan, up in Paris. He also sent him many vouchers containing the dried plants collected during his famous expedition to the Eastern Mediterranean (1700-1702), which were added to the Salvadors' already sizeable collection. In 1723, Jaume Salvador, along with his children, set up the first botanical garden in Catalonia, in Sant Joan Despí (De Bolòs, 1959).

¹ *Angelets de les Alberes* - these «angels», would be called guerrilla resistance fighters nowadays. They had been putting up resistance to French domination of Roussillon and Cerdanya since 1660, after the Pyrenean Treaty. But by 1681, when Tournefort crossed the Pyrenees, they had degenerated into bandits.

The third generation of this apothecary family started in 1683 with the birth of little Joan and, in 1690, with the birth of Josep, both sons of Jaume. Josep Salvador i Riera (1690-1761) was a reserved apothecary and a somewhat mediocre naturalist, but managed family affairs well and busied himself organizing the plant collections and the library, for which he had special furniture made (still preserved in Barcelona's Institut Botànic). Joan Salvador i Riera (1683-1726), however, was an outstanding apothecary and a prominent naturalist. He was to raise the family to scientific heights that his grandfather Joan, who had died shortly before he was born, could not have imagined in his wildest dreams. Indeed he was the most knowledgeable naturalist of the family, despite his untimely death. He studied in France and Italy under first-rate teachers. He made botanical expeditions to Italy, France, Portugal, Spain, the Balearic Islands and, of course, particularly around Catalonia. It seems he was to write *Botanomasticum Catalanicum*, which had it not unfortunately been lost, would have been the first floristic catalogue of Catalonia (Camarasa, 1989).

The family legend was to continue by way of Josep Salvador i Riera but neither his son, Jaume Salvador i Salvador (1740-1805), nor his grandson, Joaquim Salvador i Burgès (1766-c.1857) were to follow the family tradition. However, they maintained the collections, as did Jaume Salvador i Salvador's widow, Francesca Burgès (d. 1830). In fact, their cabinet crammed with curiosities (along with the natural elements it also contained coins and archaeological bits and bobs) was the only museum in Barcelona during the eighteenth and early nineteenth centuries. It was located in Fusteria Street, which intersects the well-known Carrer Ample, near where the central post office now stands (Camarasa, 1988).

The naturalistic vein of the Salvador family finally petered out when Josep Salvador i Soler (1804-1855), great grandson of Josep Salvador i Riera, lost his life on drowning in the Garonne near Agen. His descendants showed no particular interest in botany or science in general. Fortunately, the collections and the library were saved on being deposited by Silví Salvador, son of Josep Salvador i Soler, on the Bleda's estate, a house in Sant Martí Sarroca near Vilafranca, Penedès. In 1937, amid the Spanish Civil War, Pius Font i Quer learnt of this, and negotiated the safe relocation of this valuable heritage to Barcelona's Institut Botànic.²

² In May 2013, after the writing of this article, Barcelona City Council located and purchased books, documents and objects pertaining to the Salvador Cabinet, recovered in 1937, the existence of which was unknown. Once catalogued and studied, these valuable materials will undoubtedly shed new light on the scientific and social lives of the Salvador family.



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Itinerary followed by Joan Salvador and Antoine de Jussieu during their expedition around the Iberian Peninsula. It shows the main stages and dates of arrival in the major cities visited.

■ THE SETTING OF SALVADOR'S EXPEDITION

In 1689, Jaume Salvador i Pedrol became a member of Barcelona's Consell de Cent (meaning Council of One Hundred). He was an important citizen, owner of an apothecary store, museum and urban properties (at least one property comprising two hectares at Clot de la Mel³). After 1705, due to the War of Spanish Succession, scientific gatherings were held in the room behind the store, bringing together apothecaries, physicians and surgeons of the Austrian armies present in Barcelona (Camarasa, 2011).

The war was to catch Joan Salvador i Riera by surprise in France, where he had gone to study aged just seventeen. There he remained until 1706, and in view of the course of the conflict he chose to disappear from the Bourbon realm and go to Italy. But he was to soon return to Barcelona, thus at the age of 23 he joined in with the half-war and half scholarly atmosphere of the room behind his father's store. It must have been exciting for a young man like him. Certainly his heart

must have been divided between the Catalans' effusion for the Austrians and his sympathy for France, inherited with his family's tradition and time spent there and many friendships made in Montpellier and Paris. Years later, after his untimely death, his brother Josep maintained ties with Bourbon high authorities, including the Duke Lluís Enric de Borbó, brother of Philip V. This does not imply the Salvadors were supporters of Philip V (known as *botiflers*), but they were Francophiles.⁴

During the war, the Salvador family could only maintain contact with scientists from the countries forming the Grand Alliance, namely Austrian supporters. But after 1714, it was possible to resume relations with French scientists. Furthermore, in 1715, Joan Salvador was nominated as member of the Académie des Sciences in Paris. Thus, all told, it is not surprising that in 1716 he gave a warm welcome to Antoine de Jussieu (1686-1758), whom Joan Salvador had met previously in Montpellier. Jussieu arrived in Barcelona, accompanied by his younger brother Bernard

³ They paid annual rates of «8 lliures, 15 sous i 6 diners». In 1835, Joaquim Salvador and his son Josep Salvador i Soler built 18 terraced houses, which still stand (2013) and form the most endearing part of this street: Carrer del Clot.

⁴ An entry in Joan Salvador's travel diary stirs up doubt about this. Referring to the town of Sax, he writes: «In this town, the people have always been good royalists, opposing and defending the place from imperial and English troops ... » (5 November 1716). «Good royalists» seems to reveal coinciding positions. Or perhaps simple caution, given the times...



Pictures of the double page: Ana Ponce & Ivo Rovira

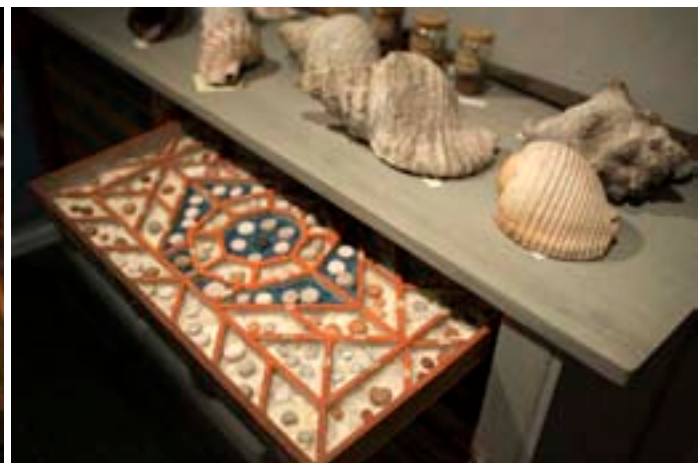
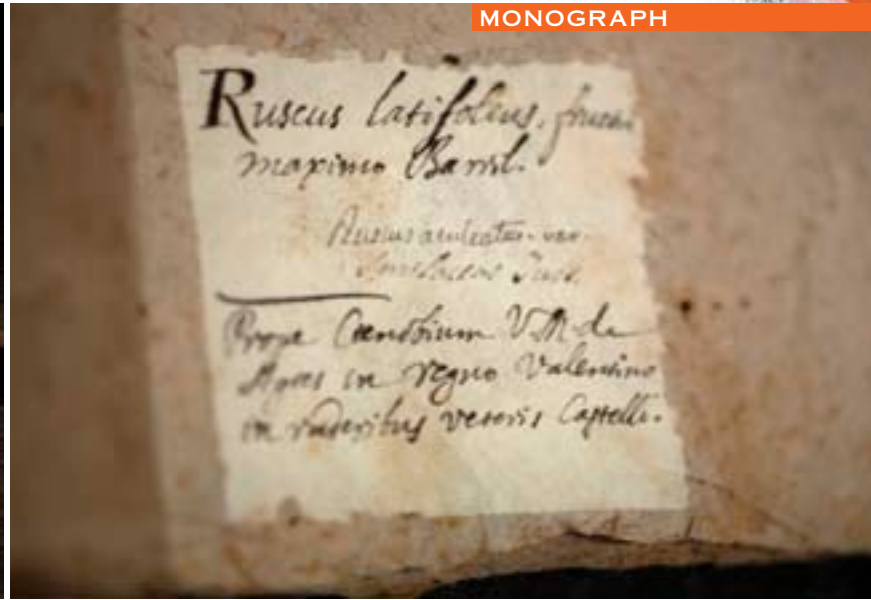
The Salvador library collections (1,300 volumes) are preserved at Botanical Institute of Barcelona (IBB) in the same drawers and bookcases that Josep Salvador i Riera had built in the mid-eighteenth century. The Herbarium vouchers that appear in the image correspond to the plants collected during the expedition around Spain and Portugal.

and the artist Philippe Simonneau, to complete the Iberian expedition made by Tournefort years before. It was a decision taken by the Académie des Sciences, supported by the regent Philippe d'Orleans. France was euphoric over the Bourbon victory in Spain of 1714, and it must have seemed like venturing into their own back garden. Jussieu entreated Joan Salvador to accompany him. How could he refuse? He had to do it, and no doubt he was dying to go. In the year 1711, at the height of the war, he had been collecting plants in Mallorca. Now he had the opportunity to travel Spain and Portugal. The war was over, Barcelona was like a prison and he was 33 years old. So, on with the expedition!

■ JOURNEY THROUGH SPAIN AND PORTUGAL

«Seventh day of October, departed from Barcelona by calash, two saddled mules and a groom travelling on foot (...) and arrived in Martorell having travelled a distance of four leagues (*lleagues*), for which one

needs five hours by calash». Thus Salvador relates the beginning of this journey in his diary, an expedition which ended eight months later, on 30 May 1717. This diary, written in functional and straightforward Catalan, without any literary concern, bore a title that sums it up: *An account of the journey through Spain and Portugal made by order of His Most Christian Majesty Louis XV and Monsignor Duc d'Orleans, regent of France, from October 1716 until May 1717 inclusive, the company being monsieur Antoine de Jussieu, Doctor of Medicine of the School of Paris, demonstrator of plants at the Jardí del Rei, Paris, member of the L'Académie des sciences, etc., monsieur Philippe Simoneau, engraver of this Academy, Joan Salvador, apothecary of Barcelona, Bernard de Jussieu, brother of monsieur le Docteur, medical student, having made several botanical, medical and other observations for the natural history, and some for geometry, etc..* In the eighteenth century, and especially after the war, travelling overland was quite an adventure. Salvador's diary provides



valuable evidence, as he kept careful notes on the route and incidents. One thing it does not say is that it was Salvador who financed the journey. His French *grandeur* called upon him and decreed it so, while his Catalan industriousness assumed the cost anonymously. We know how it is...

The diary contains hardly any scientific observations, because that was Jussieu's duty⁵, but it is easy to imagine that the travellers' conversations revolved primarily around these subjects of common interest. Indeed, after the expedition, the correspondence between Salvador and Jussieu shows this was the case. For example, the diary sums up their passage through Elx (10 November 1716) somewhat succinctly («Then Elx came into view amid a forest of palm trees, not to be seen in such profusion elsewhere, not from San Remo to the banks of Genoa»), but in

⁵ A task only half done, because the full report of the expedition, repeatedly requested by the Académie des Sciences, would never see the light, due to Jussieu's economic hardships and time-consuming medical practice to which he was devoted. However, among the documents recovered recently by the City Council (see note 2) Joan Salvador did make a list of plants collected during the expedition.

a later letter Jussieu writes to Salvador: «*Comme nous n'avons pas pu voir les fleurs du palmier dattier, examinez les a votre loisir et faites nous une description de toutes les parties de la fleur et de ce que vous observerez dans la fructification*», showing that they did in fact visit the palm gardens but did not see them in flower. Jussieu's request was undoubtedly related to the controversial debate he had over plant sexuality with Sébastien Vaillant (1669-1722) at that time. Vaillant, curator of the Paris Jardin des Plantes, defended plant sexuality while Jussieu, in principle, opposed it. However, as he had some doubts he requested information firsthand from Joan Salvador, because Joan knew about date palms, as they grew in the family botanical garden located at Sant Joan Despi (Layssus and Layssus, 1970; Camarasa, 1995).

Portugal was to catch the special attention of this group of travellers, probably because it was unknown and seemed more exotic. They entered by Elvas on 14 January 1717 and left by Moncao on 20 April, i.e., more than three months later. Half of that time was spent in Lisbon and surrounding areas, partly due to interest and partly to recover in the city from hardships

incurred on the way, which were not few: most resting stages had been spent in *ventas* (inns) and cheap shabby hostels. For instance, on 15 November at Mazarron he wrote, «... we put up at the most awful inn (...), the French landlord was drunk and threatened to kill us. We had a very rough night sleeping on the floor». And just a week later, on 22 November, in Cúllar, near Baza, «...they wanted to make us pay three crowns just to cook our dinner and make up the beds, after our having purchased and brought everything (...) it is customary for all innkeepers to swindle travellers, especially foreigners». The essence of the expedition was trudging along muddy roads, eating bad food and sleeping on the floor or on straw mattresses.

Salvador was to notice surprising details or curious things, comprising the signature note of the diary. For example, he states that «In the kingdom of Valencia, all the ceilings are plaster like in Catalonia» (10 November 1716). Also, regarding the mineral wealth of Mazarron his entry (16 November 1716) has details that reveal his pharmaceutical training «We went outside the town to see where they get “ochre”, this earth pigment is abundant here, all the fields are red (...) We went to the lead alum cave, that they call “hair” alum (...) The said alum is found in abundance mixed with vitriol, and on the walls there is another smaller kind. Before entering the cave, the rocks look like those in an iron mine while others look like magna and another stone that seems like *calamita*⁶». Indeed, the fishermen of Mazarron harbour «were all armed because of the danger of Moors, as too those in the town, because the Moors often come to land there».

Otherwise, the spectre of recent war shadowed the travellers at all times. In Manresa, Perello (Tarragona), Alicante and Lleida desolation was palpable. «Many demolished houses can still be seen here», he says of Alicante on 7 November. About Lleida, 26 May 1717 he says: «The city, demolished». Having just begun the journey on 10 October, he explains that Manresa «... due to being burnt down in 1713, was devastated, with a wretched inn, where we had to sleep on the floor on a bit of straw». Of interest are the comments relating to Gibraltar, newly occupied by the British (1704), an act involving a pro-Austrian Catalan battalion. Salvador writes (11 December): «The English have greatly fortified Gibraltar, and have over three hundred cannons (...) The governor promised to let us climb the mountain, [but] later said he did not want us, as we



The Sant Francesc convent in Valencia, from the stables perspective in 1704 (*Valentia Edetanorum*) by Tomàs Vicent Tosca (1651-1723). When Joan Salvador and Antoine de Jussieu visited Valencia in 1716, the convent must have looked like this, and it was in these gardens where the *Persea* grew, as recorded by Salvador in his diary.

could see all the fortifications (...) In Gibraltar there were many Jews from the Barbary Coast».

The friendly face of the journey was reflected in the comfortable city inns, the convents or monasteries and the homes of some well-known friends, who welcomed them generously. And, above all, the joy of collecting new plants, discovering landscapes and visiting unfamiliar cities. The diary is full of comments on monuments, customs and curiosities. He explains (4 November) how they make cakes in Ontinyent, or (26 November) how most of the columns in Granada cathedral bear signs that say: «*Nadie se pasee, hable con mugeres, ni esté en corrillos en estas naves. Pena de excomunió y de dos ducados para obras pías*» (Nobody may stroll, talk to women or huddle in these naves. Penalty of excommunication and two ducats for

⁶ *Calamita* is loadstone, the old name of magnetite; alum is a double sulphate of potassium and hydrated aluminium, while lead alum also includes ferrous sulphate; vitriol, described in the context of the site, was just iron sulphate, ochre or red ochre is a red iron oxide, used for painting.

THE 'PERSEA' AT SANT FRANCESC CONVENT IN VALENCIA

MONOGRAPH
Pathfinders in Science

One of the most curious ethnobotanical observations in the travelogue kept by Joan Salvador refers to a *Persea* in the gardens of the Sant Francesc Convent in Valencia. Salvador wrote: «We went to Sant Francesc and entered the monk's cell to gather branches from the *Persea*, which were abundant. And a young monk told us that the *Persea* fruit is very "hot", and is useful for those who have problems performing the venereal act. Indeed, he was once told in confession of one who had engaged in such acts with a woman fourteen times in one night, due to having eaten the fruit, both pear and date-shaped of the "avocado", which he called the *Persea*». Joan Salvador must have found this story far-fetched, maybe the young monk was pulling his leg (ethnological surveys are full of jokes of this kind, which the interviewer should know how to detect) and, therefore, he deleted this paragraph in the definitive version of his diary. However, the drawing remained in his field notebook (Sunday 25 October 1716), with an explanation of the said properties of the tree whose leaves could be reached from the monk's cell...

The day before, in the Jesús neighbourhood, which then lay on the outskirts of the city, they saw another *Persea*, recorded by the Flemish botanist Carolus Clusius in his journey through Spain and Portugal in 1564 and mentioned in his work *Rariorum aliquot stirpium per Hispanias observatarum historia* (1576). Salvador writes in his notebook: «We went to Jesús, where they cut that *Persea* tree that Clusius saw, called the avocado». Based on this note, I included this Catalan name for the avocado in Great Catalan Encyclopaedia, in the botany section, which I was writing at the same time I was transcribing the diary of Salvador and Jussieu's travels.

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charitable works). He also writes in the diary: «The streets are very dirty, the bread is good and cheap (...) Lawyers, doctors, clergy and others go on horseback, mules, and many wear spectacles on their noses to appear more dignified». He found Lisbon wonderful but Valladolid banal (5 May 1717): «... many people wear ruffs (...) but otherwise there is nothing special». We spent only one day in Madrid, like Segovia, and less than other cities».

■ THREE CENTURIES OF SILENCE

Joan Salvador did not publish his travelogue. We know that he copied it out, i.e., that there is a refined version, but that is all. Without doubt, his only intention was to keep a record of the journey, or maybe he was thinking

of recording the dates and places for the labels of the ultimate herbarium vouchers. However, with the passage of time, writings of this kind have ended up taking on greater interest as scientific documents, and more than just that. Indeed, many botanists have completed the exploratory works of Clusius, Tournefort, Jussieu or Willkomm⁷, but this notary-like description of the landscape, of the country as it was in the early eighteenth century is not to be found in any of their writings (Colmeiro, 1858). So Joan Salvador's travelogue, like Baron Maldà's *Calaix de sastre* or other comparable works, is now a valuable narrative document.

This travelogue remained unpublished, in the Biblioteca Salvador library at Barcelona's Institut Botànic, until 1972, when I organized its publication. I worked on three different manuscripts, all fragmented: the travelogue, the final version written up by Joan Salvador himself, and an anonymous copy of the final version, possibly by Pierre André Pourret (1754-1818), French botanist and biographer of the family (Pourret, 1844). Fortunately, it was possible to reconstruct the whole text from the three fragments. After their publication, the original manuscripts mysteriously went missing from the Salvador library.

If they still exist, I hope they will be retrieved someday. ☺

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⁷ The German geographer and botanist Heinrich Moritz Willkomm (1821-1895), assisted by the Danish botanist Johan Martin Christian Lange (1818-1898) published, between 1861 and 1880 in Stuttgart, *Prodromus Florae Hispanicae* the first complete modern flora of the Iberian Peninsula.