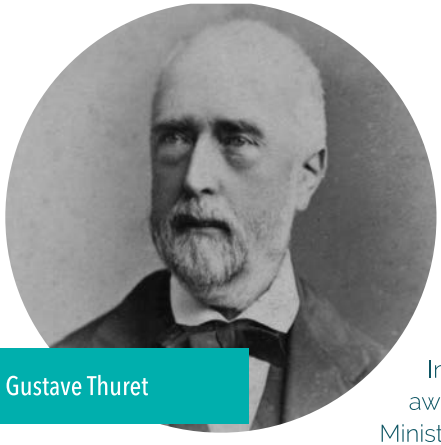
Villa Thuret

a Maison d'Illustres



Gustave Thuret

Villa Thuret, a Maison d'Illustres

Preamble

In 2018, the Villa Thuret and its botanical garden were awarded the Maisons des Illustres label by the French Ministry of Culture.

In support the recognition that comes with the label, INRAE has set up a museum room inside the Villa as a tribute to the work initiated by Gustave Thuret.

Financial support from the Région Sud Provence-Alpes-Côte d'Azur has contributed to the acquisition of items for this development.

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Gustave Thuret,
the story of a man, the story of a site

Gustave Thuret was born in Paris in 1817 to a Dutch family of French origin who had emigrated to the Netherlands when the Edict of Nantes was revoked.

1817 birth of Gustave Thuret

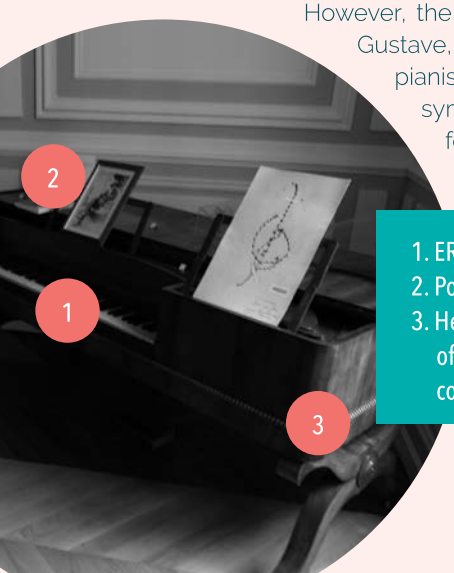
With the help of a private tutor, his mother gave her children a full and rounded education at the family château of Rentilly in Seine-et-Marne. Gustave was brilliant: he obtained his bachelor's degree in literature in 1835.

He went on to study law, obtaining a bachelor's degree in law on 4 December 1837 and became a licentiate on 24 August 1838, having written his thesis entirely in Latin at the age of 21. It was during this period that he applied for and acquired French nationality.

Gustave Thuret
well-informed music lover

A well-informed music lover, Gustave Thuret benefited greatly from the lessons given by his regular music teacher at Rentilly, Maître Zimmerman.

Through music, Gustave met Alexandre de Villers, a young Prussian citizen sent by his father to Paris to work in the printing industry. However, the job was not to Alexander's taste. Like Gustave, Alexander was a highly accomplished pianist and together they played Beethoven's symphonies and Schubert's compositions four-handed at the Conservatoire and the Italian Opera.

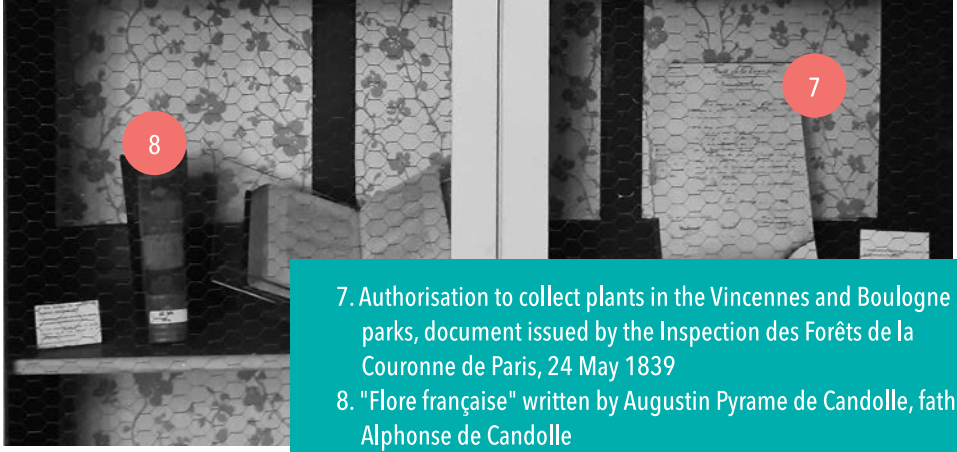


1. ERARD piano from 1841, donated by Gilles Tamagne
2. Portrait of Alexandre de Villers
3. Herbarium sheet in the form of a treble clef: sample of *Euphrasia salisburgensis* Funck ex Hoppe var. *salisburgensis* collected by Gustave Thuret in Seine-et-Marne in 1849

In the summer of 1833 or 1834, Alexandre de Villers, who was also interested in botany, came up with the idea of walking from Paris to Rentilly and collecting plants along the way.

The young Gustave was intrigued by his friend's green box and his attire, but even more so by the inventory of his box, which, with the help of Bautier's "Flore parisienne", convinced Gustave once and for all of the importance of plant identification.

2. Portrait of Alexandre de Villers
4. "Flore parisienne" by Bautier
5. Messenger bag with shoulder strap, used for collecting plants in the 19th century
6. The oldest known Gustave Thuret herbarium plate, a sample of gentian collected on 7 August 1835 on the island of Canna



7. Authorisation to collect plants in the Vincennes and Boulogne parks, document issued by the Inspection des Forêts de la Couronne de Paris, 24 May 1839
8. "Flore française" written by Augustin Pyrame de Candolle, father of Alphonse de Candolle

1839 meeting with Joseph Decaisne

For Gustave, it was a revelation that was possible to follow a procedure in order to identify a plant, to observe anatomical details that would ultimately enable each of these plants to be classified and named!

His joy prompted him to take botany classes with Joseph Decaisne (1807-1882), whom Alexandre de Villers had met at Adrien de Jussieu's plant collecting sessions at the Jardin des Plantes in Paris.

Gustave Thuret attended these courses at the Museum of Natural History in Paris (MNHN) from 1839. It was the start of a great adventure for Gustave and a fruitful and lasting relationship with Joseph Decaisne.

Joseph Decaisne

What's more, the many species of plants in the Parc de Rentilly made it a veritable laboratory for the novice botanist.

Bautier's "Flore parisienne" was soon replaced by Augustin Pyrame de Candolle's "Flore française", which was a more complete work for our young enthusiast. Plants that proved difficult to identify were sent to Joseph Decaisne.

On 24 May 1839, Gustave Thuret obtained permission from the Crown Forest Inspector to collect plants in the Vincennes and Boulogne parks.

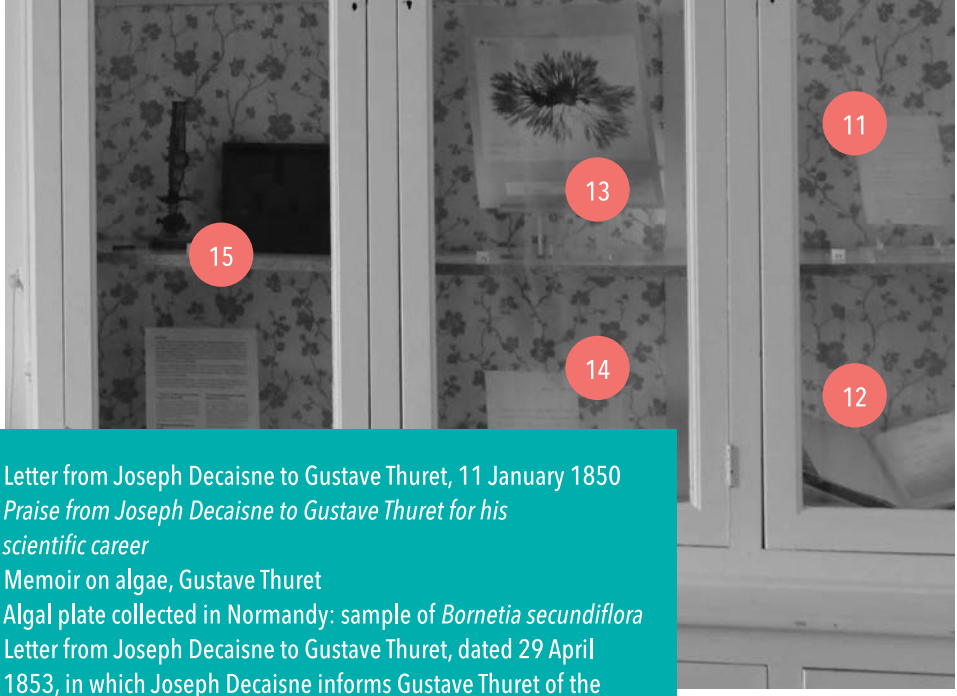
In autumn 1839, Gustave accompanied the French ambassador, Monsieur de Pontois, a family friend, on a journey to Constantinople.

In 1840, Gustave Thuret accepted a position as an embassy attaché. His passion for botany remained a constant, and Gustave brought back a few seaweeds from the Bosphorus.

During his time in Constantinople, Gustave Thuret and Joseph Decaisne continued their correspondence, and Joseph Decaisne soon convinced Gustave Thuret that only a thorough knowledge of fruiting bodies could provide the basis for a classification of the algae on which he was working.

Back in France, Gustave set up a laboratory at the family château of Rentilly for his research with a microscope.

9. Letter from Joseph Decaisne to Gustave Thuret, 24 September 1839
   Encouragement from J. Decaisne for G. Thuret to continue his activities as a botanist
10. Fumitory (*Fumaria thuretii*) plate dedicated to Gustave Thuret by Edmond Boissier



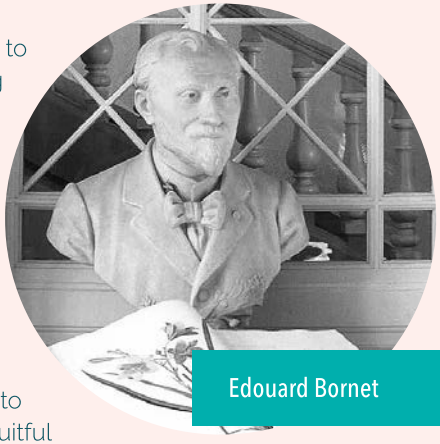
11. Letter from Joseph Decaisne to Gustave Thuret, 11 January 1850 *Praise from Joseph Decaisne to Gustave Thuret for his scientific career*
12. Memoir on algae, Gustave Thuret
13. Algal plate collected in Normandy: sample of *Bornetia secundiflora*
14. Letter from Joseph Decaisne to Gustave Thuret, dated 29 April 1853, in which Joseph Decaisne informs Gustave Thuret of the forthcoming presentation of the latter's dissertation to the Académie
15. Oberhauser microscope, similar to the one used by Gustave Thuret in the 19th century

A first dissertation was presented to the Académie des Sciences in 1847. Not only did the dissertation demonstrate that there was sexual reproduction in an alga, which had been unknown until then, but Gustave Thuret also discovered the existence of a locomotor organ in a plant for the first time. He was only 23 years old!

Four years later, he observed sexual reproduction in a seaweed of the genus *Fucus*. His first discoveries led to genuine recognition in the scientific world of the young man's atypical career. In a letter, Joseph Decaisne writes to him: "I presented your dissertation at the Grand Prix of Natural Sciences, and it was a triumph".

Joseph Decaisne gradually entrusted him with the study of algae. To get a better idea of how they reproduce, Gustave abandoned those found in poor condition on fish market stalls to study them *in situ* on the Normandy coast.

1852 meeting with Edouard Bornet



Edouard Bornet

His personal fortune enabled him to rent a pied-à-terre in Cherbourg and to procure all the fresh plant material he needed for his observations. In March 1852, he was joined by a young 24-year-old assistant recommended by Joseph Decaisne, Edouard Bornet.

A talented watercolourist at the end of his medical studies, he was sought after by Gustave Thuret to draw seaweed. And so began a fruitful 23-year partnership. Joseph Decaisne also recommended the draughtsman Alfred Riocreux, an artist "attached" to the MNHN in Paris.

At the time, a suitable photographic technique was not yet available. It was therefore necessary to enlist the services of artists capable of capturing the reality of the observations through drawings and paintings.

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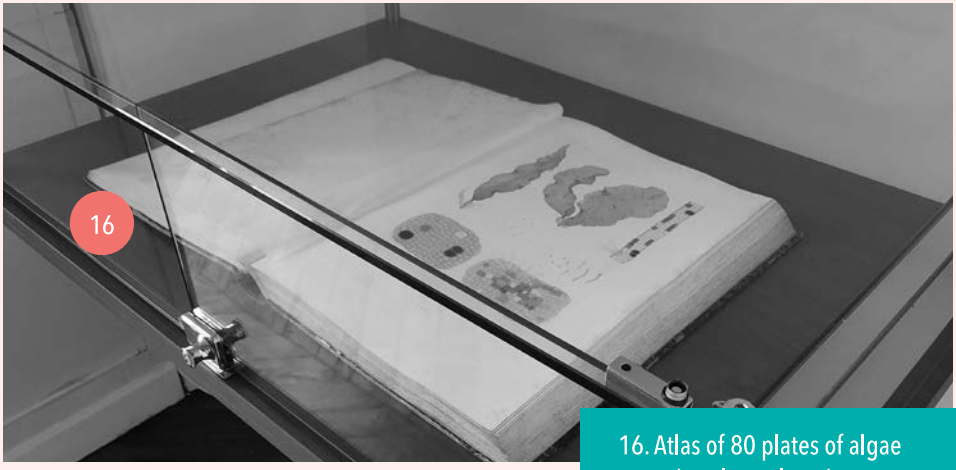

16. Atlas of 80 plates of algae
"Phycological studies"
Gustave Thuret and Alfred Riocreux

In his letter of 29 April 1853, Joseph Decaisne told Gustave Thuret that he had read his dissertation and would be proud to present it to the Académie des Sciences. He wrote that this was one of the greatest discoveries of the first half of the nineteenth century, namely the first observation, on a cellular scale, of fertilisation in a living being and the first rigorous demonstration establishing the existence of shared basic characteristics between animal and plant reproduction.

1857 Gustave Thuret moves to Cap d'Antibes

Extended periods in cold water had harmful consequences for Gustave's health: asthma and rheumatic pains led him, on medical advice, to move closer to the Mediterranean coast in the winter of 1855. Relieved of his ailments, he decided to settle on this coastline and ended up choosing the Antibes coast, which is very rich in seaweed, and more particularly the Antibes peninsula.

Magnificently located between the Gulf of Juan and the Gulf of Nice, with a breathtaking view of the Alps, the Antibes peninsula is the place that best suited his needs. After visiting every nook and cranny, none seemed more beautiful than the one that became his property a year later, made up of shrubs and food crops.

Villa Thuret in 1935

At the time, Cap d'Antibes was rural and virtually deserted. This solitude was a further source of appeal for Gustave, who became the first 'foreigner' to settle in Cap d'Antibes and remained so for a long time.

The locals called him le "Parisien du Cap". From autumn 1857 onwards, Gustave settled on the site and began landscaping the garden and building the house. He asked Joseph Decaisne to recommend horticulturists who could supply him with the plants he was looking for, as there were none locally. Thuret's main supplier was undoubtedly the Jardin des Plantes in Paris, through the attentions of Joseph Decaisne,

who sent him quantities of plants and seeds. The first major shipment (135 species) took place in December 1857.

This marked the beginning of an undertaking to introduce a huge number of species (4,190), with the garden stabilising at 2,691 acclimatized species by 1875.

The garden of the Villa Thuret in 1905

The garden became a veritable subsidiary branch of the Jardin des Plantes in Paris. All successful introductions were studied and samples were placed in the herbarium. Their seeds were then collected and distributed, either directly (Index Seminum of the Villa Thuret) or through the Index Seminum of the Jardin des Plantes in Paris from 1863 (seed catalogues of the MNHN in Paris - 1860 and 1869).

2691 species introduced and cultivated in 1875

Alongside this work, Gustave continue to study algae, collect plants in the countryside or mountains in the hinterland or during his and Bornet's travels, and carry out research on the heritability of genetic characteristics, on the spread of seeds across the seas and oceans, on meteorology and on photography in the service of botany.

Many scientific and illustrious visitors gradually included the Villa Thuret in their travel plans. Following her visit, George Sand wrote in her "Lettres d'un voyageur à propos de botanique" in 1868, that at Villa Thuret there was *"the most beautiful garden I have seen in my life"*.

1875 death of Gustave Thuret

Gustave Thuret died suddenly in 1875 in Nice.

Louise Fould

In 1877, Gustave Thuret's sister-in-law, Louise Fould, offered 200,000 francs to the French State to buy, conserve and preserve the Villa and garden. The government accepted the donation and a Higher Education Laboratory was created by decree. Edouard Bornet was offered the position of director of the establishment, but he turned down the honour in order to complete and publish Gustave Thuret's unfinished work on algology. He was succeeded by Charles Naudin until 1899, then Georges Poirault.

In 1927, the Villa Thuret was transferred from the Ministry of Public Education and Fine Arts to the Ministry of Agriculture, where it became the Institut des Recherches Agronomiques.

In 1946, the I.n.r.a - Institut national de recherches agronomiques - was founded. Antibes became one of its most important centres, focusing on horticulture and crop protection. INRAE - Institut national de recherche pour l'agriculture, l'alimentation et l'environnement - was created in 2020.

Villa Thuret is now an INRAE experimental unit, with research and scientific outreach missions on the subjects of global change, climate change, biological invasions and biodiversity erosion.

Villa Thuret today

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