# THE CONTRIBUTION OF SOME GERMAN PERSONALITIES TO BOTANICAL CULTURE IN LIGURIA (NW-ITALY) BETWEEN 19<sup>th</sup> AND 20<sup>th</sup> CENTURIES

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#### ABSTRACT

The author presents a review of some German personalities who have contributed significantly to botanical culture and gardens in Italy, particularly in the Italian Riviera. Many of them have had close relationships with the Hanbury Botanical Gardens or have been in contact with these Gardens.

KEY WORDS German culture, botany, Riviera

#### INTRODUCTION

The contribution of the Germans to the botanical knowledge in Italy is far greater than has been assessed so far. Several people of German culture have distinguished themselves for having studied and spread the values of the wild and cultivated flora, the gardens and the landscape, especially in Riviera. The cultural relationships between Italy and Germany are well represented in the picture "Italia und Germania", painted by Johann Friedrich Overbeck in 1828, at a time when Deutscher Bund and Italy were fragmented. In this allegorical painting, beyond the physical features and clothing of the two female figures, it is possible to see the ancient historical heritage a landscape with some mountains which decline towards the sea and the laurel wreath for Italy and the building skills - with a fortified citadel and the spire of a Gothic church- for Germany (Fig. 1).

Besides many artists (writers, painters, photographers, singers, composers, conductors, actors, industrial designers), architects, engineers, industrialists, we find also scientists, botanists, zoologists,



Fig. 1. "Italia und Germania" by J.F. Overbeck (Directmedia Publishing GmbH)

explorers and travelers. Some of them have showed more interest in the most popular aspects of our country and represented only one side of it, not always in a positive way, with caricatures which can be found in some German newspapers and magazines when there's a description of the Italianness. Others have plumbed the depths of the spirit of Italy and the Italian people and even committed to proposing, sharing and realizing some very important cultural objectives in our country. Some examples of such works are still appreciated in a global context. The contrast between these two views is clearly expressed by comparing some of Giorgio Sommer's pictures (eg. "The spaghetti Eaters") and what Anton Dohrn has been achieved in Naples, above all the renowned zoological station named after him.

During the second half of the 19<sup>th</sup> century several young men, after having been formed in good German technical schools and with a deep "Germanic" culture, gradually came to Italy and contributed to the emancipation and to the development of our unitary state, which was formally born in 1861, despite the continual conflicts which opposed Italy and Germany. The alternate periods of peace and war determined times when the "German" was seen now as a great collaborator and also as a "friend" and now as a bitter enemy who had to be removed or even wiped out even after having been fully integrated and "Italianized".

In the Riviera di Ponente the arrivals of the British, French and German people increased considerably, and this increase marked the start of a real economy based on tourism and holidays, especially after the achievement of the PLM railway line, Paris - Lyon - Mediterranée (1855-1862), which reduced travel times and brought about a remarkable economic, social and urban development along the coast.

In 1872 also the railway line between Genova and Ventimiglia was opened. This new line intensified the trade and the development of this area, gave a remarkable boost to the birth and development of the gardens and determined the birth of floriculture. During that period began also the cultivation of the rose "Safrano" in the plain of Latte, near Ventimiglia: a very important step towards the development of the floriculture in the Riviera.

## GERMAN BOTANISTS, EXPLORERS AND LANDSCAPISTS IN RIVIERA

Both Thomas and Daniel Hanbury, through some contacts with some scientists who gravitated to the Royal Kew Gardens, dreamed about creating a botanical garden that could host the largest number of species, since they were very young. This dream became stronger in Thomas, perhaps after his trip to Germany, Switzerland and Italy in 1852, before leaving for Shanghai, and became true between 1867 and 1868, about one hundred and fifty years ago, when he purchased a good part of the property of Capo Mortola from the families Grandis and Orengo. He aimed to create a very spectacular English landscape and acclimatization garden, but it had to be oriented by the *scientia amabilis*, botany, and equipped to carry out rigorous scientific experimentation.

In order to make his dream of an English garden come true, Thomas Hanbury called a young German since the beginning: Ludwig Winter, who had been formed in Germany, exactly in Erfurt, Potsdam and Poppelsdorf near Bonn, and in France, exactly in Paris, Marseille, Cannes and Hyères. Winter can be considered as the first curator of Hanbury Botanical Gardens, where he worked from 1869 to 1875, before devoting himself - he was only 29 years old - to his own nursery. More information about Winter and his important contribution to the Mediterranean landscape can be found in another chapter (Mazzino, 2017).

Below I will go through other Germanic personalities who made a contribution to the botany as a science on the Riviera. Unfortunately we know very little about some of them, so we are going to list only few data, sometimes uncertain. I will go through neither with Alwin Berger nor with any other important German gardeners, to whom other specific contributions are dedicated (Schmalfuss, 2017; Metzing, 2017; Guiggi, 2017; Littardi, 2017; Zappa & Mariotti, 2017).

# Gustav Cronemeyer

After the Ludwig Winter's departure and Daniel Hanbury's death in 1875, the Hanbury Botanical Gardens were managed directly by Thomas Hanbury without the help of a prominent botanist or landscape gardener. Between 1875 and 1876, Gustave Rütschie, a Helvetian headgardener, seemed to have a more important role than other people, but it's impossible to identify in his work the position of curator. Meanwhile, Thomas Hanbury continued to acquire the lands of Capo Mortola and the last purchase took place in 1893, 25 years after the first one. Therefore, the project of the Botanic Gardens progressively increased its potential and its needs about management. That's why in 1883, after that most of the cultivated areas had been acquired, Gustav Cronemeyer was appointed as curator of Hanbury Botanical Gardens. He was probably born in 1832 and worked as curator from 1883 to 1892, when he died at La Mortola.



Fig. 2. Title page of the first catalogue of the Hanbury Botanical Gardens written by G. Cronemeyer (1889).

We know little about Gustav Cronemeyer's work, but surely it has been relevant and he was probably responsible for a truly scientific approach. He boosted the herbarium and drafted the first catalogue of La Mortola Botanical Gardens with the title "Systematic Catalogue of Plants growing in the open air in the Garden of Thomas Hanbury F.L.S." (Fig. 2) published by Erfurt (Cronemeyer, Koenig, 1889). This catalogue includes 3,600 taxa cultivated at La Mortola and another edition was published with the taxa in alphabetical order. The epithet of a species of Aizoaceae has been

named after Cronemeyer: *Delosperma cronemeyerianum* (A.Berger) H.Jacobsen ex H.E.K.Hartmann (basyonim: *Mesembryanthemum c.* A Berger).

# Moritz Kurt Dinter

Moritz Kurt Albin Dinter (Fig. 3) was born June the 10<sup>th</sup>, 1868 in Bautzen and died December the 16<sup>th</sup>, 1945 in Neukirch/Lausitz. He was an important German botanist and explorer of German South West Africa,



Fig. 3. Portrait of M.K. Dinter (courtesy of Namibian Scientific Society).

curator of the Hanbury Botanical Gardens from 1892 (after Cronemeyer) to 1897 (before Berger). He drafted the "Alphabetical catalogue of plants growing in the open air in the garden of Thomas Hanbury, Palazzo Orengo, La Mortola, near Ventimiglia, Italy", published in Genova in 1897. This catalogue (Dinter, 1897) listed approximately the same number of taxa as the previous one, published by Cronemeyer. Kurt Dinter's behavior at Mortola hasn't always been irreproachable, since he tended to be overcome by alcohol and other debaucheries. However, after having married Helena Jutta Schilde (1871-1949) and having become famous in the South-West African colonies, he got his head together. He subsequently returned for a short vacation at La Mortola and was warmly welcomed by eveyone.

About Kurt Dinter's life we have several information from Alwin Berger's biography, written by Elise Berger (2016). Some passages are mentioned below in italics.

Despite the difference in age and, above all, character, Dinter and Berger were always good friends even before Dinter's arrival at La Mortola.

... In Dresden, father [Alwin Berger] made Kurt Dinter's acquaintance, who one day appeared in the botanical garden from his hometown Bautzen. He wanted to see again the place of his previous job, although the year before he had been fired on the spot in disgrace because of his unworthy behavior. As the two were conversing animatedly, Inspector Poscharsky passed by and called the father: "Mr. Berger do not let yourself be involved with the scoundrel, that isn't the sort of company you should be keeping!"

But father could not be stopped. That same evening he met Dinter. Dinter told him that he wanted to go to Italy, and hoped to find an employment in the large garden of La Mortola, which belonged to a rich Englishman. There a German named Cronemeyer had just died. In fact, he hadn't got any permanent job yet, but he trusted to luck and would travel to Genoa as a journeyman. . . .

Several times the opportunity to leave La Mortola presented itself. The German Colonial Minister, Dernburg, asked whether father [A.B,] was ready to move to German South West Africa. In this case it would have concerned Dinter's removal and father [A.B.] declined.

Dinter brought father [A.B.] many valuable plants, partly dried, partly preserved in alcohol. Then father sat together with Dinter for hours and hours. They identified zealously the new species, then they published them together in the "Englers botanische Jahrbüchern".

During the same week, there was another pleasant surprise! On their way back home from their trip to Switzerland, the Dinters came to visit us. Exactly in the morning, father [A.B.] had gone to Kirchheim unter Teck to tour a large private collection of Cactaceae. We managed to call him by telephone. By Dinter's request we had to prepare a gigantic bowl of "pastasciutta alla mortolese" for dinner. He enjoyed it with relish; his appetite was always astonishing.

We can have a detailed picture of Kurt Dinter's behavior when he was unmarried and his "repentance" from the following passages.

His appetite must have been phenomenal. One evening, when he arrived hungry at home after an excursion, Angiolina [the cook] offered him to prepare something quickly and asked him if he wanted some eggs. He said yes and after having asked again: "How many eggs do I have to take? Two? Three?". The astounding answer was: "No, Twelve". And he really ate up all the twelve eggs and a large bowl of red peppers for dessert.

During the great heat, he used to sleep in the "Cava", the sand cave near the entrance. Usually it was used to store both old junks and various gardening tools. Dinter used to sleep there for weeks and weeks and affirmed that it was more comfortable than his apartment. He was often brought to his room completely drunk by the workers and slept for days. Obviously he neglected his duties. The Italian chief gardener, with whom Dinter had a row almost every day, sent reports to the distant Thomas Hanbury that would have made his hair stand on end.

Since he left Dresden in 1890, Dinter had a very bad time of it. He wrote to father [A.B.] about this bad time: "I've been on the street for two years. I've crossed half Europe. I have worked as a slave in the Rhine Province near Aachen under the name of a gardener in an estate. In Verden and in Hannover I transported bricks in a building site ... Several times I have been on the point of taking my own life in despair, but now I would be very angry if I did. Luck usually comes suddenly, unexpectedly; surely more rarely than bad luck, but it happens". Dinter was right: luck had never left him. When he went to Africa, he was dismissed without notice from his first job at a farm near Windoek after one year: he had become violent during an argument with the owner. So he found himself completely destitute! Without hesitation, he walked on the road to Swakopmund. After months full of the heaviest privations, he arrived there without a penny. He wandered through the town and in the evening he settled in a hostel. There he wrote an article with the title "Wie kann man Stadt und Land aufforsten" (How to reforest cities and countryside) and sent it to the local newspaper without mentioning his name. The following day the article was published and read by governor Solf, who immediately inquired after the author and called for him. Dinter came to him and gave him detailed information about the required plants. Then he left the governmental building as a botanist of the German Colonial Society for South West Africa.

Om June the 7<sup>th</sup>, 1898, he wrote to father [A.B.] about this matter: "So I actually work at the German Colonial Society since mid-March but obviously not in Swakopmund. I've had the choice between so many places along the Swakop River and I chose Salem, 110 km west of Swakopmund, because there is superabundance of water here, a lot of wonderful acacias and the train will go past only 3 hours and a half from here (through Sakalswater near Modderfontein). Now I'm here, a 20-day Malaria is just behind me, while my colleague is still laid up. We both stay here completely alone, without even a single worker; it's impossible to find them: here in the upper Swakop everything is sick and dead. In Okahandja between 5 and 7 blacks die every day! As it is common practice here, I sowed some vegetable seeds on Swakop's wet sand and everything has come up without watering, even the Eucalyptus globulus. Now I want to set up a nursery of date palms with 5-6,000 plants, as soon as I get some help ... The climate is completely tropical, in fact we are in the tropics also from a geographical point of view".

Alarming weeks followed, because Dinter's appearance was the craziest ever. He roamed around between Ventimiglia and Sanremo with any kind of riffraff and even dared to bring some "girlfriends" in the "Cottage". When he came home late at night, he was never sober.

Eventually father [A.B.] had enough of that. In my presence, he made a long and severe reprimand to Dinter, who was much older than him, and concluded with the words: "Look what you could have done all these years! You had the best opportunity to become famous! In your place, I would feel ashamed to go on holiday in Germany!" Dinter listened everything carefully and patiently, and when father [A.B.] finally paused, he said in a very friendly way: "Berger, you're right! Now I return home and ask Jutta, my old playmate, if she wants me: if so, I promise you I'll become a different person!" Three months later we received his engagement announcement.

Three years after Dinter's marriage the intendancy counselor Engel, one of the famous geologist Engel's sons, native of Württemberg, came to visit us from German South West Africa. He brought greetings and some plants from Dinter. Of course we bombarded him with questions on how could the marriage have been canceled. Then he told us that the piece of news about Dinter's engagement in Swakopmund had struck like a bomb: the whole colony couldn't understand, it seemed so incredible to everybody that a woman might decide to marry someone like Dinter. On the day of the bride's arrival, all those who could hurried to the harbor to see the miracle. General astonishment! Instead of the awaited scarecrow, there was a young, tall, slim, extremely pretty woman completely dressed in white! The next day, the wedding day, the church was full of curious persons. Officers, officials, and all the bachelors were of the opinion that the young - and surely unlucky - woman had the honorary obligation to sweeten and - as far as possible - to make the life with such a man bearable. Each morning, a compassionate soul appeared at Dinter's door to invite Mrs. Dinter to a walk or a boat ride. At first Dinter stood back and did nothing about this coming and going and thanked in the name of his wife for all the attentions. But when he had enough of that, he had a tall fence made of canvas erected by his Blacks during the night, to be safe from inquisitive looks. Then he hung a piece of paper at the doorbell: "My wife belongs to me. Dinter".

In July, Kurt Dinter brought his wife at our place. What a change after 5 years! Dinter was unrecognizable. What had become of that mess person? An elegant gentleman with impeccably creases got out of the carriage at the side of his beautiful wife. The whole Mortola was astonished! What had been able to do this woman in that short time! Dinter had worked hard, had published many works, and had made a name for himself with his botanic collections. He was completely under the influence of his wife, but she didn'let it show him. If he became angry as happened in the past, a sweet word, or a gesture of hands from her were enough to calm him down.

However, Dinter's immature behavior didn't adversely affect its overall contribution to botany.

At the end of June 1914 Mr. and Mrs. Dinter came from Okahandja to go again on holiday in Germany. As happened in previous years, Dinter's first stop was La Mortola. This time he had brought with him even more material. He wanted to determine, and then publish, new stapelias and many new mesembriantemums that had been recently discovered together with father [A.B.]. During the last years Dinter had several useful leaflets published about the flora of South West Africa. In the meanwhile, several new plants had been discovered and introduced in Germany by him and his wife. On the 70<sup>th</sup> birthday of the secretary Engler, the Engelmann publishing house of Leipzig published a celebratory volume in which Dinter and father [A.B.] had published a work about the "Plantae Dinterianae".

He became one of the most important experts of succulents and described about 800 new taxa. Four names of genera (*Dinteracanthus* C.B.Clarke ex Schinz, *Dinteranthus* Schwantes, *Dintera* Stapf and *Juttadinteria* Schwantes) and more than 150 species were named in Dinters's honor. Kurt Dinter is also known as the "Father of Botany of Namibia" for his research in Africa. A botanical journal devoted to flora and vegetation of South-West-Africa was named "Dinteria" in his honor on the occasion of the 100<sup>th</sup> anniversary of his birth (Giess, 1968).

## Ottone Penzig

Albert Julius Otto Penzig (March the 25<sup>th</sup>, 1856, Samitz – March, the 6<sup>th</sup>, 1929, Genova), was a Prussian botanist and mycologist, explorer of East Africa and Indonesia. Between 1887 and 1929 he worked as professor at the University of Genova, and completed the rearrangement of the Botanical Garden and the Institute of Botany of Genova after being appointed as Director.

Ottone Penzig (Fig. 4) was one of Thomas Hanbury's great friends and has been for several years his academic advisor in Italy.



Fig. 4. Portrait of Penzig at the age of 26 when he obtained Italian citizenship.

Thanks to a donation of Thomas Hanbury, also in order to express gratitude towards Penzig, the new Institute of Botany was built. The construction began in 1890 and were completed in 1892. The building new was inaugurated during the International Congress of Botany, as part of the  $4^{th}$ celebrations of the centenary of the Discovery of America.

Penzig's contribution to the knowledge of the vernacular plants names of Italy and especially of Liguria, has been remarkable, but he has made other significant contribution to many fields of botany, especially to plant

teratology, mycology, and phytogeography.

Penzig (1883) published a detailed description of the Giardini Botanici Hanbury:

... Below the houses of Mortola, where the Route Corniche is a little awake to form a small square, stands the large gate of the Hanbury garden, adorned with the coat of arms of the family: in front of the entrance is an old twisting olive grove, from whose trunk a water spring sprouts, an artificial fountain, there led by Mr. Hanbury .... (Fig.5).



Fig. 5. A monumental *Araucaria cunninghamii* cited as beautiful by Penzig (1883) in his description of the Hanbury Botanical Gardens.

Penzig (1884) published also a mycological flora (the great majority referred to microfungal taxa) of the Hanbury Botanical Gardens with 37 taxa. This work was recently updated by Ambrosio *et al.* (2015).

Several writings about Ottone Penzig have been published (e.g. Beguinot, 1930; Savelli, 1930) including also the Italian translation of his diary about his expedition in Indonesia (Sergio Carlini, 2017).

Penzig, loved Italy and his culture so much that he even became Italian himself. Nevertheless and despite his older daughter had married and lived together with a member of a strictly Italian family, he suffered during the First World War period, "an ordeal of bitterness and sorrow" (Issel in Savelli, 1930). Nonetheless and despite the premature loss of his wife and daughter Berta, he remained a fine, straightforward, austere and charitable gentleman. He wrote over 130 articles and monographs (28 in German, 2 in French, 2 in English and 104 in Italian). He was a naturalist, a great, almost reflective observer, a traveler, a hiker and, at the same time, an extraordinary bookworm and archive user.

#### Fritz Mader

Friedrich Heinrich (Fritz) Mader (1872, Nice – 1921?, Stuttgart?) was one of the six sons of Philipp Friedrich Mader, lutheran priest at Nice (Binder, 2006) (Fig. 6). He was an alpinist, a photographer, an archaeologist and also a botanist (he corresponded with Burnat) (Maurin, 1938; Bellone, 1999; Fraschia, 2000).

Within twenty years, he published several articles (Mader, 1892; 1896; 1897; 1900a; 1900b; 1901; 1903a; 1903b; 1905a; 1905b; 1907a; 1907b; 1909; 1912a; 1912b) in Italian, French and German on the geography of the Riviera and the Southwestern Alps, including a survey of gardens in the Maritime Alps. Some of his photographs are kept in the Fondazione Sella in Biella (Cassini & Caudano, 2017). His monograph published in 1897 contains the results of repeated travels and investigations as a result of the study of the literature about a very little explored landscape, expressed in a strictly scientific form. This

monograph concerned mainly the flora and the vegetation and contains interesting phytogeographical observations. Fritz Mader's botanical skills are evident in his work published in 1912 about the forest of Saint Baume. In this article, there are many biogeographic comparisons with the flora of the southwestern arch of the Alps, and of other countries. His landscape descriptions provide useful information to analyze land use changes in the Riviera and the Western Alps.



Silvia und Elena Maurin (Enkelinnen)

Fig. 6. Fritz Mader (first from left) in a family photo in 1905 (from Binder, 2006).

Mader has highlighted very contemporary themes: he has dealt with the exploitation and the conservation of rare species, monumental trees, historic gardens (Mader, 1909) and the problem of invasive species (Sant & Alziar, 2013). He was one of the first to propose a park that had the Royal Hunting Reserve of Valdieri and Entracque as its core, but the "vast Karst area with funnels and caves around the Cima Marguareis" had to be included as well. Deforestation was his main concern for the Alpes-Maritimes.

Limitandoci a località determinate, sarebbe forse interessante di proteggere, a parte, qualche tratto di quegli stupendi prati che ricoprono molte giogaie delle Alpi Liguri, e vengono alternativamente falciati e abbandonati al pascolo, con danno di molte piante belle e rare. Ma più urgente è la conservazione dei boschi e degli alberi rimarchevoli, i castagni essendo le sole vecchie piante generalmente non minacciate (se non, purtroppo, dall'impianto di fabbriche di prodotti tannici, le quali poi si chiudono dopo compiuta la strage)<sup>2</sup> (Mader, 1892).

In 1897 Mader played an important role in informing Clarence Bicknell of the existence of rock engravings in Val Fontanalba. They became so much friend that Mader had a mountain named after Bicknell (Cima Bicknell, 1645 m a.s.l.) which is on the crest separating Val Fontanalba from the Valmasca (Avery, 2016). The Genoese climbers Federici and Piccardo dedicated two picks to Fritz Mader: the Torrione Mader (2215 m a.s.l.) and the Dente Mader (2220 m a.s.l.) in the Upega Valley.

Fritz Mader, at a very young age, was able to observe and identify essential processes of plant life, vegetation and landscape: the evolution during geological eras, the consequences of climate change such as glaciations, the competition among species, the dynamism and the succession of plant communities, the role of man in destroying populations of species that have become rare and to be protected. His short paper on *Chamaerops humilis* (Mader, 1905a) is a significant example of his skills to explore, observe, and analyze botanical

<sup>&</sup>lt;sup>22</sup> By limiting ourselves to some specific places, it might be interesting to protect, separately, some stretch of those beautiful meadows that cover many mountain ranges of the Ligurian Alps and are alternately mowed and left to pasture, to the detriment of many beautiful and rare plants. But more urgent is the conservation of the woods and the remarkable trees, since the chestnuts are the only old plants that are generally not threatened (except by the installation of tannic products factories, which then close after the massacre).

information. This work published in French was then almost entirely reproduced and published in English by Berger (1907).

Mader and his family had also friendly relations with Alwin Berger. In the biography written by Elise Berger (2016) a few but significant episodes are reported.

The old German pastor of Nice, Mader, lived in Tenda together with his family. Father [Alwin Berger] had got friendly with his son, Fritz Mader, for years, and had made long excursions in the mountains with him. Dr. Mader was a geographer and photographer and had published a great guide with the title "Die Riviera". Furthermore he adapted every new edition of the "Baedeker" guide of the Riviera.

In such gloomy moments it was the Reverend pastor Mader, who still walked erect despite his 80 years, who reinforced in us, who were younger than him, our confidence in the justness of our German question and the skill of our army, in order for our confidence to persist firmly, even when public opinion towards us was changed more and more ... Afterwards more than ever ...!

Perhaps it might interest large circles and appropriately illuminate the cultural progress of the "Grande Nation" if I added that pastor Mader has told us how he could continue to live in his vicarage of Nice during the 1870-1871 war. Despite all the people's hostility, nothing happened to him, because Napoleon III had placed a sentinel in front of the church and, after his fall, the Republic continued to have that order carried out. Nevertheless, that time the German church and the vicarage were plundered and destroyed after a few months, while the old pastor was in Tenda together with his family to spend the summer, as he had been doing for 35 years. Despite his advanced age, pastor Mader was taken by the Italians from his house of Tenda to Lucca for "suspect espionage"! A few days after the father's [A.B.] arrival in Stuttgart, he saw from a distance on the Castle Square a man who looked very much like his old friend, Dr. Fritz Mader of Nice. Father [A.B.] thought, "If I didn't know that Fritz Mader is still in Tenda, I might think that's him!" As they approached, they recognized each other with great joy. He had come to Stuttgart with his sister Käthe, Mr. Bieler and Mr. Gross, who had lived with us in the outbreak of war in Tenda village. The Mader came from Württemberg.

The second passage shows how wars contribute to degrade souls and to consider suddenly as enemies those who were considered as friends or even brothers or fathers until the time of the declaration of war.

# Eduard Strasburger

Eduard Strasburger (February the 1<sup>st</sup>, 1844, Warsaw – May, the 18<sup>th</sup>, 1912, Bonn) (Fig. 8) is one of the most famous biologists and botanists of the 19t<sup>h</sup> century. He contributes to the development of the modern Cell Theory, demonstrated the double fertilization, and discovered the discrete stages of mitosis and cytokinesis in algae and higher plants, describing cytoplasmic streaming in different systems, and reporting on the growth of the pollen tube into the embryo sac and guidance of the tube by synergides. Strasburger has raised many problems which are hot spots in recent plant cell biology, e.g., structure and function of the plasmodesmata in relation to phloem loading (Strasburger cells) and signaling, mechanisms of cell plate formation, vesicle trafficking as a basis for most important developmental processes, and signaling related to fertilization (Baluška et al., 2012; Wolkmann et al., 2012). His Textbook of Botany is still very popular today, after 36 editions.

In 1895 Eduard Strasburger published the first edition of a travelogue ("Streifzüge an der Riviera") which includes also an inventory of the local flora in addition to the description of the Riviera and people. Other edition were illustrated by Louise Reusch (1865-1955) and published posthumously in 1904 and 1913. After several trips in the



Fig. 7. Portrait of Eduard Strasburger (photo Dr. Wolfram Lobin/Uni Bon from https://www.uni-bonn.de/neues/126-2012)

Mediterranean area, one of which to Egypt and Red Sea with his friend and colleague, the Darwinist Ernst Haeckel, Strasburger's enthusiastic view for nature, biodiversity and life in general. Was reinforced. "Streifzüge an der Riviera" was an insightful compendium of five travel between Hyères (France) and the Cinque Terre (Italy), in which the author described the fascinating life of plants. He has also reported on historical events in the area and regional customs, including ingredients and protocols for the production of different typical alcoholic drinks of the area. He also was fondly interested in the industrial use of plant products as oil and even in perfumes from the Grasse area (Wolkmann et al., 2012). The February 1907 issue of the Gardeners' Chronicle, which contained a reference to the English version of this book, translated by O and R. Comerford Casey under the title of "Rambles on the Riviera", reported, among other things: An account is given of Sir Thomas Hanbury's garden at La Mortola and the volume is dedicated to that generous protector of the sciences.

For his students, he was not just an excellent teacher but also often like a father discussing individual problems during his laboratory visit even or, in particular, at the weekend. Even at the fin de siècle, his team was of international composition, in particular by students from the USA (Wolkmann et al., 2012).

Strasburger had quite close relations with Alwin Berger and the Riviera. The biography of Alwin Berger (Berger E., 2016) reports:

Prof. E. Strasburger was a regular guest at our place. For many years he came regularly on the Riviera at the Easter time. His book "Streifzüge an der Riviera" contains a long chapter about La Mortola. In the fourth edition, whose revised edition he completed on the day before his death, father [Alwin Berger] must have been able to help him. For us his visits were "red letter days". He then sat in his favorite chair and could talk for hours. Usually he came over by foot from Mentone and we were allowed to accompany him on his way back a little way. His wealth allowed him to descend to his first hotel, where he had always lived the same room for twenty years...

He was particularly pleased when he received in 1908 the Darwin Wallace Medal from the Linnean Society of London, which had been given to seven scholars in the last fifty years, including Haeckel, for their services to Darwin's doctrine. He called this his "Pour le mérite"...

In March 1910, we had the pleasure of seeing Prof. Ernst Haeckel again. He came on vacation to Mentone for a longer time. At his request, we settled him in a very modest guest house on the beach of Garavan. On the other hand, his former student and colleague, Prof. E. Strasburger, lived in the first hotel nearby....

In April, a great spring feast took place in Menton, to which father [A.B.] and I [the wife, Elise Berger] were invited by Prof. Strasburger. On this occasion, the Bengal lights lights lit up the harbor and the city. After dinner, in which Häckel took part too, we went through the streets festively illuminated.

Lady Hanbury sent an official invitation to the Stewardess of the Household and invited the Royal Heighnesses to the "5 o'clock tea". The invitation was accepted for a Sunday afternoon. The visit lasted one hour and Lady Hanbury gave the princesses the English translation of Strasburger's book "Streifzüge an der Riviera" in memory of the meeting..

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Fritz [Berger] was often longing for his dad and spoke always of La Mortola. When Antonio Winter [son of Ludwig] sent us some flowers from Bordighera for Easter, he sadly looked them. Together with Mrs. von Tobold, prof. Strasburger's only daughter, the children could go to the zoo and the aquarium.

# Alban Voigt

In 1914 Alban Voigt (1857-after 1937) published "Die Riviera -Junk's Naturfuhrer", a nature guide. One of the volumes includes a very full description of the Hanbury Botanical Gardens at La Mortola (occupying 135 pages) with a complete list of the fine collection and a map with the location of the plants. There are also some short descriptions of the show gardens of Cannes and its district: Château de Thorenc, Château Vallombrosa (Villa Sainte-Ursule and then Hôtel du Parc), Villa Eilenroc, etc. Alban Voigt has been in contact with Alwin Berger: in "Hortus Mortolensis", Berger (1912) expressed his *thanks to those who have given me their kind assistance in compiling this Catalogue, especially to Mr. James Britten, F.L.S., Mr. Clarence Bicknell, M.A., of Bordighera, and to Mr. Alban Voigt, of Dresden.* 

Voigt (1914) was one of the first to correctly identify and report the presence of *Erigeron karwinskianus* DC. as an adventitious species « en grandes masses dans les murs des jardins des maisons n° 47-75 de la route de Nice à Villefranche » and aux « villas du boulevard de Garavan ». A letter sent by Voigt to Società Botanica Italiana and published in its Bulletin (Voigt, 1918) confirmed his botanical skills. Voigt highlighted seventeen plant species collected in Lugano and other places of Canton Ticino, among which *Commelina communis* L., *Pueraria montana* (Lour.) Merr. var *lobata* (Willd.) Sanjappa & Pradeep [sub *P. thunbergiana* (S.Z.) Benth.], and *Ailanthus altissima* (Mill.) Swingle (sub *A. glandulosa* Desf.). At present their invasive potential is yet thoroughly monitored.

In 1918, Alban Voigt, as he was trying to reorganize the herbaria of the Lugano Museum, found two collections of *exsiccata* dating back to the beginning of the 19<sup>th</sup> century. It has been a discovery of the utmost importance, as they were the herbaria that had been considered missing since a long time and belonged two real precursors of Ticinese floristics: abbot Bartolomeo Verda (1744-1820) and doctor Giuseppe Zola (1789-1831) (Voigt, 1920).

Voigt (1920) published a long list of plants of the Flora of the Canton Ticino which he had been collected personally in Lugano and in its surrounding area and/or had been kept in the herbaria of the abbot F. Verda and Dr. G. Zola. The numerous adventitious species confirmed Voigt's interest in exotic species. Some information about Voigt's exploration in Canton Ticino can be gained from his unpublished handwritten notes at the Museum of Natural History Lugano (Bellosi et al., 2011).

Alban Voigt was among the new members of the Botanical Society & Exchange Club of the British Isles during the year 1919-1920.

Several of his botanical notes were published in the 1920s on the German magazine "Allgemeine Botanische Zeitschrift für Systematik, Floristik, Pflanzengeographie". A lot of specimen he collected or revised are kept in the herbaria of the Museo Cantonale di Storia Naturale di Lugano (LUG) (Fig. 8 and 9).



Fig. 8. Specimen of *Gagea villosa* collected by Alban Voigt and kept in LUG (© Museo cantonale di storia naturale, Lugano)

Fig. 9. Specimen of *Stachys alopecurus* of Abbot Verda's Herbarium, revised by Voigt and kept in LUG (© Museo cantonale di storia naturale, Lugano)

## Woldemar Kaden

Woldemar Kaden (February the 9<sup>th</sup>, 1838, Dresden – July, the 26<sup>th</sup>, 1907, Munich) was a German author and translator. He was director of the German School of Napoli from 1867 to 1873 and was chair of German language and literature in the University of Napoli, but resigned in 1882. He traveled extensively in Italy, and his many writings dealt almost exclusively with Italy.

In 1874 Kaden published *Wandertage in Italien* and in 1880 *Unter den olivenbäumen*, a collection of forty-three folk tales from Southern Italy. Probably Kaden had translated these tales from the works of some Italian ethnographers rather than directly from oral sources, to the point that the famous Giuseppe Pitrè (1886) accused him, together with Christian Friedrich Wentrup and Theodor Trede, of having plagiarized works of other authors. However, Kaden published in 1880 also a report on a summer tour in southern Italy with descriptions that linked to the Italian literary movement of the verism and highlighted his exceptional ability to observe and his strong attention to social issues. Masi (2000) talks about Kaden as a refined person of letters. Scamardi (1998) described the important role played by German travelers such as Kaden in promoting the knowledge of Italy.

In 1883 Kaden wrote a description of Isola d'Ischia and in 1884 published *Die Riviera - Wanderziele und Winterasyle der ligurischen Küste von Nizza bis Spezia*, a travel guide illustrated by Hermann Nestel (Fig. 10).

*Die Riviera* has been reissued many times. It's a wonderful illustrated book of geography with descriptions of countries, people, plants, climate and the sea and it provides not only sensations, but also scientific data (temperatures, rainy days, etc.) which can be useful for a comparison between present and past. In this regard, Kaden's descriptions and Nestel's illustrations of the Vallone del Sasso in Bordighera, Ventimiglia, Menton, and many other places in the Riviera are exemplary.



Fig. 10. The Hanbury Gardens illustrated by H. Nestel in the guidebook published by W. Kaden (1884).

The painter Maler Hermann Nestel (May the 10<sup>th</sup>, 1858, Stuttgart –1905, Bordighera) was a great friend of Ludwig Winter and his daughter married Antonio Winter, Ludwig's son.

#### CONCLUSIONS

The importance of the role played by Germans in the landscaping and management of the gardens and nurseries of the Italian Riviera has already been highlighted on a number of occasions (e.g. Carassale et al., 2015; Hornung 2013; Littardi; Mariotti, 2013; Viacava, 1997). The above data allows to attribute a greater incidence of this role to the knowledge of the flora and the landscape, the exploration of Italy and the botanical research, attributing it to people who have been unjustly forgotten a bit. Some of them have suffered accusations which have been determined only by an excessive nationalism during periods marked by war vicissitudes and deep changes in the forms of government. These accusations were often false allegations that went beyond the populations' dimension by diverting to a more personal one and lead to deny and to subvert friendly and familiar relationships that seemed to be consolidated. The few pages of this contribution are just a starting point for a further development of a study of intercultural relations in a borderland, an ancient crossroads of languages and traditions which stretches between the Italian Riviera, the Côte d'Azur and the South-Western Alps.

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