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## **A REVIEW ON THE ACTIVITY OF “ALEXANDRU BORZA” BOTANICAL GARDEN SINCE ITS FOUNDATION**

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**Abstract:** The history, activity and the destiny of an institution are often mistaken for the lives and virtues of the people who serve it. There are many examples and all confirm the truth by which man elevates the place where he works and offers it a particular characteristic of his own personality that suggestively defines its value and originality.

Organized on scientific bases, the Botanical Garden has diversified its functions and purposes, transforming more and more into an active scientific factor. Today, it is not only a school for the formation of students and biology researchers, but also an institution having merits in environment protection, germ plasma preservation, the culture of the rare species of spontaneous flora, and in spreading knowledge on the vegetal world.

“Alexandru Borza” Botanical garden is presented as having an impressive past. The multilateral activity carried on in the Botanical Garden reveals the work and capability of its team, the passion and generosity of the people working here, which shows a clearer and larger perspective

The existence and the role of the botanical gardens will have to be presented in a larger context. The essential part of insuring a future to our planet is the teaching of ecology. For all these, besides the education and information means, the botanical gardens have a great importance. They will have to find ways of modern and effective ecological education by which the people would protect the environment. We think that the role of the Botanical Garden should be that of education and research institution, in the field of botany. Without this part, the botanical garden would become a park or a garden for pleasure, lacking in the vocation and pulsation of scientific life, lacking in that permanent competition impulse that each botanical garden has.

In this great city there are many significant events, but few of them meet the charm and significances that the festival of the Botanical Garden offers to our University and to the academic part of the city.

I have said the charm as the joy and delight of this moment takes place in the season of flowers. This season is incomparable as it displays its permanent beauties also due to the perfumed alleys and paths guarded by so many plants and flowers, bearers of silence and multiple events, which are a part of the scenery of this old citadel.

The history, activity and the destiny of an institution are often mistaken for the lives and virtues of the people who serve it. There are many examples and all confirm the truth by which man elevates the place where he works and offers it a particular characteristic of his own personality that suggestively defines its value and originality.

Today, when we celebrate 85 years of Botanical Garden, I am honored and I have the pleasure to try to evoke men and facts, presenting special sequences of the life and the main accomplishments of those who served with faith and devotion the Botanical Garden. They represent a great constellation of our past and present, they launched out with intense will and unstoppable verve into the stormy battle for the affirmation and progress of the institution to which they were so devoted. All of them are living examples of scientific passion, ceaseless and generous work. They are examples for all those who decide to dedicate their work and creation for the progress of science. Their impulsion is the more captivating the more of them were obliged to cut out on top through heroic battles, making their ways steadily against resistance and hardships of their fate.

We do not think it necessary to characterize in detail this institution, whose world reputation is illustrative by itself. On this occasion, we have to mention that on September 3, 1971, the eminent botanist, Professor Alexandru Borza, the founder of the Cluj - Napoca Botanical Garden died at the age of 84.

This event made a profound impression into the largest groups from the country and from abroad, as Professor Alexandru Borza was well known and unanimously appreciated not only as a main representative of a scientific subject, but also as a distinguished professor of 36 generations of students and as a founder of imposing university institutions, and as an enthusiast of different subjects of national culture, as well.

Mr. Borza's organizational accomplishments are the most suggestive and well-known to the public, due to the fact that they are practical, permanent and sensational. Following these realizations step by step, we will find out that they needed not only an exceptional talent, but also a great sacrifice of time and energy, which stole their author from his research - scientific work. This is one of the noblest and hardest sacrifices that a man of science can make in order to simplify the work and the education of contemporary and future generations. Thus, his organizational work has a higher moral significance and it must be considered among the greatest works that Borza left, all the more so his ability and effort of organization are permanently asserted in his scientific work.

The first and the most unsettling problem of the young professor of botany was that of the museum collections separated in 10 locations, difficult to be accessed or even inaccessible for research. The herbarium was placed in two old buildings from the new garden that were not arranged, as well as in the rooms and hall of the department of general botany. It was made of almost 300.000 pieces inventoried at the Transylvanian Museum and given in the custody of the University, as well as 40.000 pieces partly not inventoried, which were in the property of the University. Those lots increased quickly starting with 1919 - 1920 school year by new collections, donations and especially by buying in 1919 the Herbarium of Porcius (12.000 pieces) kept until then by the botanist's daughter, at Rodna Veche.

The material of the museum preserved in different ways had been barbarically hidden in the abandoned or even uncovered rooms of the old theater from Cluj that survived on the spot where today we can find the academic house. It represented a real value of research and learning, mostly made by the efforts of professor Al. Richter (1868 - 1927).

Professor Borza wrote reports in order to call the attention of the Senate, Ministry or University Commission, founded during the school year 1921/1922. After restless demands, he obtained the amount of 90.000 kroner with which he paid the extension of "Villa Davida" of the new garden. He moved to this villa the whole phanerogam herbarium. As far as we know this is the first real estate investment of the Romanian university. Although it had a temporary character, for more than a decade, the building was the headquarters for the scientific and technical activity of the systematic department. Meanwhile, a great building plan was worked up. In the plan it was mentioned a botanical institute, the herbarium and the department of botany. In 1935, the museum was inaugurated and opened to the public.

Professor Borza's second great achievement, which is more widely known and more appreciated by the public, is the Botanical Garden from Cluj - Napoca.

In 1919, the university had a small Botanical Garden, which professor Richter organized in an ingenious way on the area behind the zoology and geography institutes. Due to the ardor of Richter, as early as 1911 and 1912, a land of 9.69 ha on the hill to the south of the town was bought from four neighbor owners. The destination of this land was that of a "new botanical garden". This land, where there had been planted fruiterers, had remained completely unarranged and in 1919 was the most provoking temptation for the organizational passion and competence of the new director, who had come from Blaj having an undoubted experience and vocation for the setting up and cultivation of a botanical garden.

Before the Union, he had visited the gardens of several European universities, and in the summer of 1921, he visited the gardens from Prague, Vienna, Geneva, Lyon, Grenoble, Marseille, Paris, Strasbourg and Kew (London), this time with a special interest. When he came back he had new ideas for the new garden. He had the luck to find the head of cultivations, Mr. Cornel Gürtler, an excellent horticulturist and landscape architect, with extended botanical knowledge, specialized in the botanical garden of Engler from Berlin and of F. Pax from Breslau. Cornel Gürtler was essentially a devoted worker, in love of his job. He was a capable guide for professor Borza's plans and a real master in their performance. On the other side, the land for the new garden had a configuration exceptionally convenient for its purpose. The hard work began as early as the first year; according to professor Borza's plans and lasted 5 years of continuous work. The fruit trees had to be cleared, and the cleared land had to be drained and leveled for the new plantations that were moved together with the greenhouses from the old garden. There were arranged biological and systematical groups, there were made roads and alleys, there were built buildings, bridges and aquariums, with own and complicated irrigation systems which needed a reservoir and a "water castle" – the romantic tower of the garden – from where the water distribution should be done by pressure.

The director of the Botanical Garden monitored all works and strove to obtain the necessary funds in a simultaneous rhythm with that of realization enthusiasm. During the first years he used the income obtained from the sale of fruit, but those incomes were decreasing as the fruit trees were uprooted. But Borza knew how to use the production of the new garden from an instructive and educative point of view. Before totally uprooting the fruit trees, he organized, in different years, three fruit exhibitions, which were so scientifically and aesthetically presented that he was much appreciated by the Ministry of Agriculture, and also by the public from Cluj – Napoca. In 1939, professor Borza said: "the garden is kept of some funds received from the Ministry, University, a little help from the City Hall, banks, private persons (as doctor Olaru), but especially of its own incomes."

In 1926, the garden could be opened for the public that started to bring new incomes, of which many publications and field researches were financed.

From the beginning, the specialists appreciated and admired the ingenious topographical expression of the vegetal phylogeny, made according to its most modern theory, in the systematic sector. The geographical – biological groups have a strictly scientific content and are so well adapted to the relief that they can suggest the authenticity of the vegetation in its natural environment. The garden had from the very beginning a meteorological – ecological station, with a department for the culture of critical and endemic species or our flora, with a "Pliny's garden", which was a very interesting island of the history of the cultivated plants, in the middle of the garden. Little by little, there were marked of experimental lots for systematic - phylogenetic studies (Al. Borza), for ecological researches (Gh. Bujorean), for indigenous grape vine cultures (E. Pop), for genetic observations on Compositae (E. Nyárády), etc. The scientific importance of the garden is gradually amplified by the exchange of seeds, which is more and more extended, having useful results for the university education and research.

Upon opening the garden for the public, Al. Borza drew the attention on the fact that the garden "is first of all an expression of the modern botanical concepts regarding the classification of plants and phytogeography, and not a public artistic park. The rocky regions, basins, the sand heaps, shadowy corners are made in order to give the plants the natural stations they need to live, and they are not an architectural scenery. The point of view of the horticultural and landscape architecture aesthetics is placed on the second plan." In 1972, the academician Emil Pop, talking about the work of professor Alexandru Borza, said: "All of us who know the garden, as well as the millions of visitors, the majority of them not even being dilatants in botany, can realize with how much art sophistication is, however, asserted that "so called second-hand point of view",

which charmed an institution expressively scientific in a ravishing place of veritable relaxation for the locals and foreigners.

We emphasize the important social function achieved by the garden, or, more correctly said, in the garden, by the one founding it. The Garden substantially helped the Botanical Garden from Iasi, when it was in a critical moment; it waited on several school gardens with seeds and stools. It poled around it the Transylvanian horticulturists at *The Society of Horticulture* that the director of the Garden managed.

We have mentioned the fruit exhibitions that continued with flower exhibitions, which concurred with the general meetings of *The Society of Horticulture*.

The magazine *My Garden*, as well as the brochures of the series *Books for Promoting the Botanical Garden from Cluj* and *Notes from the Botanical Garden from Cluj* were written and edited at the Botanical Garden.

Of course, *The Brochure of the Botanical Garden and the Botanical Museum from the University of Cluj*, written by Alexandru Borza, stood before all these magazines. This was the only scientific magazine exclusively for the botanists of that period. It was published regularly in 28 volumes (1921 – 1948), having an important role in our scientific movement, being the main point of our original botanical production of that epoch. It encouraged the creation initiatives in the field of all botanical subjects. Professor Al. Borza was also the head of the *Botanical Contributions*, offered in exchange, and which included works published in other periodicals than the Gazette. Professor Borza collaborated with professor I. Grintescu, and then with academician E. Pop.

Professor Al. Borza managed with competence and authority, inexhaustible energy and love, for 29 uninterrupted years (1920 – 1948) the Botanical Garden from Cluj. Here, we can find today his statue, which is an eloquent evidence of the tribute paid to one of the greatest Romanian scholars, founders of botanical institutions and fathers of so many botanist generations.

In 1949, professor Emil Pop, another illustrious name person of the Romanian botanical life, was appointed director of the Botanical Garden. He managed the institution for one year. He continued Al. Borza's organizational and scientific work, consolidated it, offering the Garden, at the same time, the unmistakable qualities of his scientific and humanitarian personality.

After Emil Pop, in 1950, at the management of the Botanical Garden followed professor Eugen Ghișa. In 1951, there was no actual director, but a person responsible for the personnel, conf. (associate professor) Al. Negru and a person responsible for the scientific work, professor E. Ghișa. In 1952, the famous scientist Emilian Țopa was appointed manager of the Botanical Garden. His name is connected to over 200 scientific works, and he has an important contribution to the getting out of *Romania's Flora*, as he is the author who worked out 35 plant families and some genres of Fabaceae family.

As director, Emilian Țopa contributed to the enrichment and diversification of the plant collections, to the increasing of the relationships of vegetal material exchange. During his directorship, in 1960, the large greenhouses of the Garden were being used. The implications were favorable for the great increase of the exotic plant collections, the reputation and fame of the Botanical Garden. In 1956, professor E. Țopa edited a guide of the Garden entitled *The Guidebook of the Botanical Garden from Cluj*, an interesting work both for the public and for the employees of the institution. Emilian Țopa was an active man, constantly preoccupied to find more vegetal material that he used to carry in his knapsack. In the fall of 1959, as a consequence of the unification of the two universities, *Babes* and *Bolyai*, eight researchers, from the staff of the two universities, are transferred to the Botanical Garden. This would imprint a strong scientific character to our institution.

After E. Țopa, who managed the Botanical Garden between 1952 and 1959, professor E. Ghișa was appointed manager for the second time, between 1960 and 1962. He was opened to

new collaborations with all similar institutions. He reorganized some sectors of the garden, completed and diversified the plant collections. He was a discreet manager, who did not discourage people, letting them express their personality and creativeness. Besides E. Țopa, professor E. Ghișa remains as a bright figure that worked for the progress of the institution, and the posterity honors his memory, including him in the gallery of the great persons of the Botanical Garden and of the Romanian botanic world.

In 1963, lecturer Onoriu Rațiu, who later became professor, was appointed manager of the Botanical Garden. He managed the institution for 23 years, until January 1986. Objectively and impersonally analyzing this period, we can say that the Botanical Garden had several successes that contributed to its ever-growing fame in the country and abroad. During that period, the plant collections were diversified, their number was increased, and the species from all sectors were inventoried, and there was made a general inventory of the Garden. At that time there was order and discipline, which were clemently regarded upon by the predecessors of professor O. Rațiu. The responsibilities and hierarchies were precisely determined and the new priorities and general orientations of the garden were defined.

The five sectors were reanimated, the collections were enriched, and the small or big problems of the Garden were handled seriously. Of his trip to Indonesia, in 1965, professor O. Rațiu brings many plants, seeds, period pieces (meanwhile they have disappeared, probably were stolen), all being original pieces, very useful for our work. During this period, the main alleys of the Garden, the lake from the Japanese Garden were paved and the wooden fence was replaced with that of concrete. Some pieces of land that had no precise function, as the land nearby the Biological Research Institute, that was a vegetable garden for the staff, or the land nearby the herb sectors, were reintegrated in some sectors.

At that time, the Botanical Garden had the largest number of employees, a total of 64 permanent employees, 14 - 18 floaters and 6 guards - two for each shift. The number of researchers, botanists and engineers of the garden increased to 12 - 14, each of them being responsible for at least one sector, a fact that had the most favorable results for the well being of the institution. The labels were updated, the labels from the Museum were completely modified, the Herbarium labels were remade, the pieces were restored, the plant panels nearby the laboratory were updated, and the Herbarium was inventoried again. At that time appeared, for exchange, 5 *Schedae* for *Flora Romaniae Exsiccata*. The seed catalogue was very rich in the seeds taken from the spontaneous flora and the magazine *Botanical Contributions* was more and more appreciated, being favorably reviewed in the country and abroad. The seed exchange with the other botanical gardens was more intense, the exchange being made with more than 450 similar institutions.

In 1980, the Botanical Garden participated to the flower exhibition entitled *The flowers of Cluj spring - 80*, where it had its own stall. The stall was distinguished with the 1<sup>st</sup> prize for flower composition. A part of the staff that contributed to the success of the exhibition received diplomas for "their contribution to the enrichment of the deondrological flower and plant types".

Having a strong research staff, during that period it was written and published (1966) the monographic work entitled *Flora and Vegetation of the Crișul Repede Ravine Wildlife Sanctuary*, distinguished from a material and moral point of view with the 2<sup>nd</sup> prize of the Ministry of Education 1967. The authors of the monograph were: Onoriu Rațiu, Ioan Gergely, Nicolae Boșcaiu, Vasile Codoreanu, Maria Bechet, Gheorghe Silaghi, Flavia Rațiu, Lucia Turcu, Fracisc Lörinczi, Leontin Șt. Péterfi, Felician Micle, Corneliu Pleșa and Magdalena Nicolau.

We should not forget the important role that the Botanical Garden had and still has in the practical training of the biology students, who, over the years acquired practical knowledge necessary to the future biology teacher as well as to the future researcher.

While professor O. Rațiu was manager, it was made the famous slide collection - *Garden of The Five Continents*, which gained over the public of Cluj, as well as the public from the

whole country, by the beauty of the slides, commentary and music made to show the most interesting plants and aspects from the Botanical Garden. During that period, the representatives of the Garden wrote hundreds of promotional articles that were published in the local newspapers and in the magazines from the whole country.

We should not forget that beginning with 1975, in the life of our institution there were many enforced dismissals. In almost 10 years, the staff was reduced with 15 persons. The effects would be seen later, especially that there was not the only difficult experience we overcame.

When it was about criticism, the manager, O. Rațiu, was first of all strict with himself, living with the paradox of those seeking for the absolute, who, due to the fact that they do not obtain everything, have the tendency to destroy even the part to which they have access. He experienced the fervors and revolts of a feverish and contradictory temper. He oscillated between enthusiasms and moments of despair, a pathetic and sarcastic character, whose stringency had always been between intransigency and work, meaning in a restless exhaustion. The institution honors him among the outstanding figures of the Botanical Garden, and his professional portrait enables him to be among those who meant something in the Romanian botanical garden.

From March 1986 until March 1996, professor Ioan Hodișan was the 6<sup>th</sup> director of the Botanical Garden. For 10 years he continued to solve the problems of the garden with enthusiasm and interest. Professor Hodișan continued to promote the mission of the Botanical Garden. During this period, there were made several works intended to consolidate the buildings, repair again the Japanese lake, concreting it once again. The bridges and platforms were remade, the water tower and the pavilion of the Japanese garden were totally repaired and the hotbed was covered being transformed into a cold greenhouse for chrysanthemums. It was published a colored brochure together with F. Micle. The magazine *Botanical contributions* continued to appear every year, and lately, once in two years. The *Seed Catalogue* was sent to more and more similar institutions, and thus there were established new collaboration and exchange relationships. The botanical garden still successfully fulfilled its educational role, being available for the students who wrote their degree papers, supplying material for practical training, etc.

Let's not forget that during this period, the last ten years, it took place the events of December 1989 that would have consequences for our institution. In 1987, the third or the fourth staff dismissal, took place. There were dismissed almost 10 persons: botanists, engineers, technicians, workers, thus, the number of employees would be 34. Many of our colleagues retired or passed away during these years. The change of generations, mentality and attitude for work had repercussions on our garden.

In March 1996, the researcher Gheorghe Groza, Ph.D., was elected director of the garden. He managed the garden for 1 year and two months, until May 1997. The short time he had as director, did not allow him to materialize his plans, but though he tried on some measures meant to regenerate the sectors, to complete and diversify the plant collections. He made many field trips, bringing important taxa for study and research. He concerned himself with the publishing on time of the scientific magazine of the Garden, as he was its main editor.

Since May 1997 up to present, the director of the Botanical Garden has been the researcher Felician Micle, Ph.D., who at that time had a work experience of almost 46 years in this institution, knew the main directions which had to be followed for at least the partial renovation of the Botanical Garden. A certain constraint or even professional modesty keeps me from insisting too much on the realizations of these 8 years. I, the other employees and even the visitors must notice that this period meant the reanimation of the institution. The infrastructure of the Garden was developed and modernized, the work quality was improved, and the research activity increased.

We should remember the vast repair plan of the Botanical Institute building (where professor Vasile Cristea had a decisive role), the capital repair of the large greenhouses and

partly of the Japanese garden, the construction of the dressing room – storehouse, guest rooms, the modernization of the public lightning or the modern pavement of some main alleys.

The office equipment received, especially the computers and their annexes, which allowed us to make a data base of the institution, as well as the automatic data processing of almost all the technical and scientific activities, were very important for the present and the future of the Botanical Garden.

It is not so unnecessary to speak of getting from the physical work, exclusively done by means and with tools of the 19<sup>th</sup> century, to the endowment of the institution with certain modern tools, as grass cutting tractor, mowing machines, motor-saws, modernization of nurseries and many others.

On the basis of the more favorable material support, of the support given by our university, the number of researchers and biologists increased from 2 to 7. This allowed the institution to enter into some more important contracts and research themes.

Our researchers and biologists have obtained their Ph.D. here, and others are writing or defending their papers. The contracts, grants realized during the last 6 – 7 years have brought prestige to the Garden, contributing to its support to highly scientific levels. The names of our colleagues, Alexandra Șuteu, Ph.D., Victoria Cristea, Ph.D., Sorana Hentea, Ph.D. candidate, Crina Mocan, Ph.D. candidate, Mihai Pușcaș, Ph.D. candidate, Engineer Feszt György, Ph.D. candidate, Engineer Marius Constantinescu, Daniela Roman are already very famous for the Romanian botany, and for the botanical gardens from the country and abroad.

I also greatly thank Mrs. Alexandra Suteu for her involvement in the annual publishing of our magazine *Botanical Contributions*. I also thank the other researchers for making, these years, and the new sector of the Garden, that referring to rare, threatened and endemic plants. The guide of the Botanical Garden, which appeared in 2002, is a collective work of our botanists and engineers, as well as the first brochure of the botanical museum.

I gladly emphasize the contribution of the other employees of our garden in accomplishing our successes. The technicians, assistant chemists, landscape workers, clerks, unskilled workers contributed for the development of the institution. Thus, Aurel Perșa, Elena Rînba, Magdalena Zoltan, Adriana Bercean, Liviu Porumbreanu, Mariana Vlaic, Marton Szilagy, Manuela Almașan, Romulus Stan, Candidia Pop, Maria Doduț, Grațiana Chișu, Sofia Szekely, Ernest Papp - and the list can continue - are symbols of our Botanical Garden.

In order to finish the presentation of our realizations of the last 8 years, I have to mention the substantial increase of some plant collections, of all the sectors and of the nursery, as well as of the Museum and Herbarium. It is enough to mention the increase of taxa of the systematic, phytogeographic sectors, greenhouses, nursery and ornamental sector, where the collections of tulips and other bulb plants make out of our garden a festival of colors, freshness, perfume and joy, that the wonderful world of plants generously offer.

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Organized on scientific bases, the Botanical Garden has diversified its functions and purposes, transforming more and more into an active scientific factor. Today, it is not only a school for the formation of students and biology researchers, but also an institution having merits in environment protection, germ plasma preservation, the culture of the rare species of spontaneous flora, and in spreading knowledge on the vegetal world.

The institution that is celebrated today is presented as having an impressive past. The multilateral activity carried on in the Botanical Garden reveals the work and capability of its team, the passion and generosity of the people working here, which shows a clearer and larger perspective.

We honestly wish that this anniversary should be an event for the employees of the Botanical Garden, but also a profound meditation to the future work to which both the obtained realizations and the spiritual testament of their ancestors engage them.

On this occasion we should remember of those who brought to life the thoughts and projects of the managers of the Botanical Garden. They are examples of attachment, devotion and modesty dedicated to the institution to which they offered the best. The list starts with the Cornel Gurler, Head of cultures, and continues with Gheorghe Filip and Augustin Trif, horticulturists Petru Arba, Ioan Huzmezan, Zoltan Tomai, Ileana Chiş, Gheorghe Roşca, Valentin Bot, Vasile Păcuraru, Dănila Sărmăşan, 1<sup>st</sup> degree technicians Nicolae Bodocan, Sofia Rozor, Iosif Toader, Elemer Jablonovszky, Aurelia Făzăcaş, Sofia Baciu, Vasile Biriş, Maria Mureşan, Raveca Siotean, Ioan Doduţ, Dorel Oprea.

This is the place and the time to mention the botanists and engineers who managed the sectors of the Garden, who, besides their special scientific achievements, worked with passion and energy for the best and progress of this institution. The efforts of professor Alexandru Borza of settling the Museum and of making it well known were enthusiastically continued between the two World Wars by two manager of the institution: Martin Péterfi and Erasmus Iuliu Nyarady, and after 1965 of the well known Voichita Farcaşiu.

The names of Nicolae Boscaiu, academician, phytocenologist, florist, palinologist known worldwide, Vasile Codoreanu, lichenologist, Ioan Gergely, Flavia Raţiu, Ştefan Şuteu, geobotanists, Alexandru Marcu, ecologist, Lucia Turcu and Francisc Lorinczi, microbiologists, Gheorghe Sălăgeanu and Elisabeta Szasz, mycologists, Aurel Făzăcaş and Maria Zăpârţan (Lazăr), engineers, Zoltan Attila and others will remain in the memory of our institution.

We have to mention the good collaboration between the Garden and the School of Biology, especially the collaboration with the Systematic Botany Department and the Department of Plant Physiology. The Garden benefited of the help and permanent cooperation of famous professors. Besides the professors who were the managers of the Botanical Garden, I will also mention professor Ioan Pop, famous scientist and mentor, with whom I often went on the field to gather plants and seeds and who taught me so much about the world of plants, kindness, modesty and working in team. The names of academician Ştefan Péterfi, professors Ştefan Csűrös, Ana Fabian, Mihai Trifu and the others mean so much - value, collaboration and friendship. We thank them for being there, in need and in joy.

We also had special relationships of collaboration, help, and a permanent and useful communication with the members of the Department of Vegetal Biology. Professor Vasile Cristea, who often pleaded for the cause of the Botanical Garden, totally supported the garden. We also had good relationships with professor Leontin Ştefan Péterfi, corresponding member of the Academy, associate professors Marcel Pârvu, Dan Gafta, lecturers Irina Goia, Florin Crişan and other colleagues.

What is the future of the Botanical Garden? It is not easy to answer this question as in the future nothing will be easily done, without both material and spiritual efforts. The destiny of this institution will depend on our efforts and work, but also on the involvement of other institutions as the Ministry of Education, "Babeş - Bolyai" University as well as the other state institutions, Cluj Prefecture and City Hall, private institutions or companies, that can sponsor the activity of the Botanical Garden. The first signs came after the first sponsorship.

In order to optimize the activity of the Garden, we think that it is necessary to improve its organization. It is necessary to extend the cooperation between the botanical gardens from the country and abroad, by the direct contact of the employees with realities and realizations of other gardens. The organization of symposia, international exhibitions of exotic and local plants, practical trainings in countries with tradition in the cultivation of plants, scholarships, organization of botanical trips will insure a future and a work continuity of the botanical gardens.

The existence and the role of the botanical gardens will have to be presented in a larger context. The essential part of insuring a future to our planet is the teaching of ecology. For all these, besides the education and information means, the botanical gardens have a great importance. They will have to find ways of modern and effective ecological education by which the people would protect the environment. We think that the role of the Botanical Garden should be that of education and research institution, in the field of botany. Without this part, the botanical garden would become a park or a garden for pleasure, lacking in the vocation and pulsation of scientific life, lacking in that permanent competition impulse that each botanical garden has.

Eighty-five years devoted to these missions certainly represent a reason for the pride and joy of this celebration especially as the Botanical Garden distinguished itself even from the beginning as a scientific and didactic institution, having a distinct signification for the evolution of the botanical gardens from our country.

On this occasion, we wish to our colleagues the best in the world, the eternal youth derived from our ancestors and transmitted to the descendants, by each plant they tried to keep and improve for us and for the next generations.

The founders of this place have absolute merits as they created a valuable institution for which they worked with passion. On this occasion, we pay our respects to them, and we are certain that the next generations will carry on the same noble activity, in order to place this institution on a higher level, to prestige, prosperity and progress.

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#### O RETROSPECTIVĂ ASUPRA ACTIVITĂȚII GRĂDINII BOTANICE "ALEXANDRU BORZA" DE LA ÎNFIINȚARE PÂNĂ AZI

##### (Rezumat)

Istoria, destinul și specificul Grădinii botanice a Clujului, sunt marcate definitiv de personalitatea puternică a celui care i-a dat ființă, profesorul Alexandru Borza. La împlinirea a 85 de ani de la fondarea acestei instituții, o evocare chiar succintă, a faptelor și oamenilor care au slujit cu devotament și uneori cu abnegație Grădina botanică,

înseamnă dincolo de bucuria acestui moment sărbătoresc, aducerea unui omagiu cald și recunoscător, celor care cu nestinsă însuflețire au luptat pentru afirmarea și progresul Grădinii botanice.

Realizările de ordin organizatoric ale lui Borza sunt cele mai sugestive și renumite pentru specialiști și public deopotrivă, datorită atributului lor concret, permanent și spectacular.

Terenul destinat noii Grădini botanice posedă o configurație excepțional de avantajoasă scopului urmărit. Munca grea a început încă în 1920, după planurile lui Borza și a durat 5 ani fără întrerupere. Directorul Grădinii controla fiecare lucrare și se zburciunea de-a binelea să obțină fondurile necesare. În anul 1926 Grădina a putut fi deschisă în întregimea ei pentru public.

Borza a atras atenția vizitatorilor, că Grădina „este în primul rând o expresie a concepțiilor botanice moderne în materie de clasificare a plantelor și de fitogeografie, iar nu un parc public artistic”.

Prof. Alexandru Borza a condus cu competență, autoritate, cu pasiune științifică și abnegație, Grădina botanică, timp de 29 de ani (1920-1948). Astăzi, se află la loc de cinste, statuia sa, care reprezintă o mărturie a omagiului și venerației pe care discipolii săi o au față de una din cele mai mari personalități ale botanicii din România.

În anul 1949, pentru un an de zile, Grădina botanică este condusă de prof. Emil Pop, un alt nume ilustru al științei din țara noastră.

Prof. Eugen Ghișa este numit director în 1950, funcționând până în anul 1952, când la cârma Grădinii este numit reputatul botanist Emilian Țopa. În perioada anilor 1960-1962, revine prof. Eugen Ghișa, la cârma instituției.

Anul 1963 aduce un nou director, în persoana dr. Onoriu Rațiu, devenit ulterior profesor, care va conduce această instituție timp de 23 de ani, până în ianuarie 1986. În acest interval se petrec o seamă de fapte notabile în Grădină, ele ducând la revitalizarea și îmbogățirea colecțiilor de plante, la creșterea prestigiului științific al Grădinii botanice.

Din martie 1986 până în martie 1996, destinul conducerii instituției se află în mâinile celui de al 6-lea director, și anume, prof. Ioan Hodișan. De numele lui se leagă o seamă de împliniri pe planul modernizării Grădinii botanice și al activității de educație a publicului.

La începutul anului 1996, este ales director cercet. dr. Gheorghe Groza, care conduce Grădina timp de 1 an și două luni. Timpul scurt nu i-a permis să-și concretizeze planurile, dar a inițiat totuși unele revigorări ale sectoarelor.

Din luna mai 1997, până în prezent, Grădina botanică este condusă de cercet. dr. Felician Micle, care beneficiind de experiența celor 46 de ani de muncă aici, a intuit direcțiile principale ce trebuie urmate pentru revitalizarea și modernizarea instituției, atât pe planul dezvoltării și modernizării infrastructurii Grădinii cât și pe cel mult mai important al creșterii calității întregii munci profesionale și științifice.

Creșterea numărului de cercetători, dotarea cu computere și ca urmare informatizarea activităților tehnice și științifice a constituit suportul material pentru intrarea într-o etapă nouă de dezvoltare a Grădinii botanice.

Viitorul acestei instituții, ca de altfel, a tuturor grădinilor botanice, va depinde de măsurile ce vor fi luate la nivel național și mondial, privind asigurarea condițiilor materiale necesare formării unei conștiințe ecologice a opiniei publice. Rolul de bază trebuie însă să rămână cel de instituție de învățământ și cercetare, de instrucție botanică.