EXPERT FRANCISCO PASCASIO MORENO CIVIL HERO



HECTOR L. FASANO

Morosi; in January 1992, the construction of a modern auditorium began and, in September 1992, thanks to the economic support of the Foundation, La Plata Museum was present in the exhibition Expo-Sevilla/92 with its work "Los alimentos que Amrica dio al mundo" [The food that America gave the world], which had an extraordinary success and was considered the best from Latin America.

These achievements could he carried out thanks to the support of the city and of important companies and institutions such as: Fundacion Antorchas, Laboratorios Bago S.A., Fundacion Banco de Boston, Fundacion Hermanos Agustin y Enrique Rocca, Professional Associations, Direccion de Obras Sanitarias.

In the following years, La Plata Museum Guide was published and it was re-edited in 1999 – 10,000 issues, out of which 3,000 are written in English – and the periodic publication of the magazine MUSEO began. About two million dollars have been invested.

At present, despite the existing difficulties, the Foundation is hopeful about its continuit. In these respects, it is considered that a great support to face the hard challenges of today is to bring tack to our minds the life and work of our heroes, whose forgotten lessons and examples are the causes of our current situation, among other.

Therefore, the Foundation decided to introduce this hook on May 31, 2002, the day of the 150th anniversary of Moreno's birth. This hook is especially dedicated to our young people so that his remarkable life serves as an example to encourage their faith and hope for a better future.

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Expert Francisco Pascasio Moreno A CIVIL HERO Héctor L. Fasano





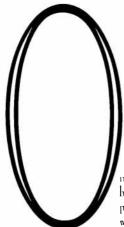
ACKNOWLEDGEMENTS

To my wife, my confidant and friend of my life.

To my children.

To my grandchildren: Diego, Andres, Marco, Julia, Martin, Matias, Carla, Ignacio, Paula y Lucio,

and to all young Argentine people, with the hope that such an exemplary life as that of Expert Moreno encourages their faith and optimism in the future of the country, and that the moral virtues that inspired his work show them the way to follow.



n the May 31, 2002, in commemoration of the 150th anniversary of the birth of Expert Moreno, the distinguished founder of La Plata Museum, we presented the hook "Perito Francisco Pascasio Moreno – Un Héroe Civil" written hy Dr. Hector L. Fasano.

Since then three editions have been published to satisfy the need for a detailed account of Moreno's life and work. He was an outstanding man who gave everything for his country. Patagonia became one of his principal objectives in life to which he devoted most of his efforts, exploring it continuously for almost 50 years.

From 1896 to 1903, Moreno acted as Argentine "perito" (Spanish for "official expert") in the boundary dispute with Chile. In 1899 he moved to London where he stayed until 1903 and worked as the geographical advisor to the Argentine delegation. In 1899, invited by the Royal Geographical Society, he gave a two-day conference in London which greatly impressed the British scientific community. During these meetings, 65 photographs he had taken in the Andes, in the Argentine Patagonia were shown. This increased the interest to visit and discover what was then considered a mysterious land. The Royal Geographical Society bonored Moreno with the title of "honorary member".

Today we proudly offer this book to the foreign visitor and the English-speaking world. Its publication has been made possible through the sponsorship of the National Tourist Secretariat.

Executive Committee of La Plata Museum Foundation.

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FOREW/ORD

a Plata Museum Foundation "Francisco Pascasio Moreno", founded in 1987, was fifteen years old in 2002. In agreement with this youthful condition, its spirit is full of enthusiasm, unselfishness and ideals, untouched by the feeling of discouragement which seems to be afflicting so many compatriots. It has a positive attitude towards the future in these years of lack of hope and lost goals. It is healthily striving forwards against the problems of our present reality. Among its projects under way, the publication of this book occupies a privileged place.

The Foundation, led by true "storm pilots", puts this hook in the reader's hands. It is a beautiful academic book, nice to go through, as French people say, digitally (I mean with the forefinger, without referring to the virtual worlds of computing that have helped building it). It is a work that makes a harmonic balance between its illustrations and its text and the eyes go from word to image in a mutual enrichment. Strictly speaking, it is a good "iconographic" hook where the two fields do not compete but complement each other.

I believe that the author, Dr Hector L. Fasano, a professional of our University and Museum for decades, is a virtuous man because this book, a work done with his hands and spirit, is full of virtues and, as we know, nobody gives what one lacks.

A first noticeable virtue is the author's invisibility (without referring to H. G. Wells). He is not the kind of writers who appears behind the main character to show off his authorship. On the contrary, his work is like the one of those atlantes that support the building without anyone realizing the main contribution they are making to its grace and structure.

The second virtue is his expository clarity. His objective is to stand out the life and works of Moreno and he does so clearly and fluently. He would never be reprimanded with Don Quixote's comment to the puppeteer's assistant as he always wasted time in preliminary speeches before a performance: "Boy, do not go on speaking!". The pages of this book are as dynamic as a film script.

Another virtue of this book – shared with the Foundation – is the sense of opportunity. It rescues the values (not the economic ones, but those that play an essential role in the existence of

a nation along history) embodied in an eminent man: Moreno. Values such as integrity, patriotic feeling, the idea of national identity, the sovereignty in several fields, not only from the geographic point of view, the ascetic sense of self-denial for the country, his capacity to give, make him one of those "invisible Argentine men" Eduardo Mallea spoke about, and so many other features of his moral structure. "Long is the road to learning by precepts, but short and successful by examples", Seneca said laconic and cleverly. This book is a good example of those values that we, Argentine people, most need in these days, so that, as models, they can lead us to reach our highest goals. Chesterton said that "each generation is converted by the saint who contradicts it most", pointing out the virtues it lacks. Francisco Pascasio Moreno's proposal to young people – to whom Fasano mainly addresses his book – is equivalent, from another perspective, to the expression of the English essayist. In Moreno's personality, it is possible to find a mirror where to form our national image, deformed by the current situation, and to defeat the laziness and the pessimism which surround us and are increasingly spreading to all the aspects of our daily life.

Moreno was born in the month of the Nation or Major Month as the chronicles of that time used to call it when they dealt with the independence fights. And this seems a premonition. Because, in a way, he achieved with his surveys and expeditions the true and legal possession of our territory, thus strengthening the struggles for the sovereignty that others began decades before. Besides, Moreno gives us what Lugones asked: "better eyes to see the Homeland". He was not, as Pero Bermudo said about the Infantes de Carrion "Tongues without hands". He had a plain tongue and many hands, many actions and roads and adventures seeking his ideals.

A third value of Fasano's book is the capacity to let the civil hero's voice be heard and not to superimpose his own. With a sober and callida iunctura, he combines Roman characters with italics [in Spanish, italica and bastardilla are two synonyms of the word "italics"] – I do not want to call it "bastardilla" because this hook uses that type to make very noble references without anything "bastard" – as a service, in order to place clearly Moreno's words: his memories, reflections, opinions and proposals.

Finally, another virtue: it is an appetizing book in the double meaning of the word. It opens, like a key, the access to realities ignored by many; and it also stimulates the appetite for knowing better the outstanding figure and following his rich written works.

Traditional historiography makes politicians and military men protagonists of our national process, almost exclusively, ignoring the contributions of silent and heroic civil men. Hero is a word related to Eros. He is the one who works with love, he is moved by a noble passion. The debt we, Argentine people, owe Moreno is for life and impossible to pay, so as to speak with the technical jargon widely used in these desperate days, agitated by chrematistic issues, said with a Greek origin word which gives prestige to the subject it refers to. Moreno enlarged our country while others make the despicable effort to make it smaller day after day.

It would be imprudent of me to delay the reader longer in this dispensable threshold. It is time to enter into the biography outlined by Fasano, thus beginning a rewarding trip, accompanied by an experienced guide. It can be said about this book: "He, who touches this book, touches a man". Have a nice trip, and thanks to the expert biographer that smoothes the path for us.

Pedro Luis Barcia

PhD in Literature of La Plata National University Full Professor of Argentine Literature President of the Argentine Academy of Letters CONICET Researcher

INTRODUCTION

he 150th anniversary of Moreno's birth was celebrated on May 31, 2002. Due to this fact, the Executive Committee of the Museum Foundation considered it convenient to commemorate this event with the presentation of a book about his life and work. When the members of the Committee thought who could write this book, they chose me because I was the author of the articles about Moreno published in the magazine MUSEO since 1993.

It was not easy for me to accept this challenge. What Dr Federico E. Christmann wrote in his hook Vivencias y Testimonios (De mis últimos ochenta años) [Experiences and testimonies (About my last eighty years)] played a decisive role in my final decision:

"When we read again the books written by Moreno... one thinks that it would be convenient that the Ministries of Education publish at least some parts to offer them to schools".

The narration about going up Santa Cruz river as well as the escape from Shaihueque's camp, and so many other heroic episodes would usefully replace all the tales and novels about almost unbelievable invented adventures, with the great advantage that these were real and told by Argentine people... It would be worth the money to make publications with illustrations with these data... and to distribute them for free or, at least, with a very cheap price, among young people so that they know those who made their country and are encouraged to imitate their examples by reading about them.

I was convinced by this opinion; Moreno's life is actually a true paradigm for young people. His dreams of childhood and adolescence, fed with stories of distinguished travelers, his love for nature and the land, his passion for collecting fossils and other objects, would later hecome three main objectives which he managed to achieve in his first fifty years: to create a museum, to know the Patagonia and the Cordillera region, and to find a peaceful solution to the boundary conflict with Chile.

But this was not all. He devoted his last fifteen years working hard at the service of his

country. As legislator, he introduced important bills, many of them are still updated; as sociologist – and philanthropist – he committed himself to help children in need, creating his Patriotic Schools, school dining rooms and children's homes; as an educator – Vice-president of the National Council of Education – he put special emphasis on technical schools and their curricula and in the organization of evening schools for adults.

His work and his contribution to the country were extraordinary but it is his exemplary behavior that turns him into a prototype: honesty, altruism, love and generosity characterized all his life.

Reflecting such an intense life is not an easy task; one runs the risk of presenting him as a mythological being, when, in reality, Moreno was a human being with virtues and defects, sorrows and joys, with bis physical and moral sufferings. But bis perseverance in his efforts kept him always in action to make the dreams and ideals of his childhood and youth come true.

As regards the organization of this book, divided in chapters, I have developed the events in a chronological order. Since I wrote it thinking particularly about young people, I have tried to use short paragraphs and a readable pleasant style. Usually, the main episodes are told by the protagonist himself, in italics and in a direct way, what enables its correct comprehension and the appreciation of Moreno from a human point of view. In the Appendix, some enterprises and anecdotes which are not very well-known are described and these contribute to a better understanding of his original personality. It is worth mentioning the last part, "A Moving Homage", in which his loyal friend and secretary, Clemente Onelli, makes an intimate and touching description of Moreno.

In each of the chapters that makes up this book, I have included the historical background of the periods involved. To support the importance and significance of this information, I thought it convenient to mention an article of Dr Alberto C. Riccardi, entitled Contexto Histórico de la vida de Francisco P. Moreno [Historical background of the life of Francisco P. Moreno], published in the magazine MUSEO, in its issue 5 dated June 1995. In his introduction, he states:

"In biographical sketches of outstanding personalities, who have not been politicians, military or government men, it is usual to show them in their fields of action as if their activity would have been developed in an empty space and not within a certain social, political and economic situation".

"However, it is clear that the actions of men are the result of their personal conditions and of the historic situations in which they live".

Finally, I would like to acknowledge Mrs. Alicia Grela, Secretary of the Foundation. For several months, she received my handwritten pages that were quickly understood, ordered and transcribed, and then stored into the computer. Without this important collaboration, it would have been impossible to accomplish this purpose in such a short time.

Héctor L. Fasano, La Plata, December 2001

PRESENTATION

n 1989, La Plata Museum Foundation "Francisco P. Moreno" published the lecture Las ideas y la obra de Francisco P. Moreno [Ideas and works of Francisco P. Moreno], given in November 1988 by Dr Alberto Riccardi, professor and researcher of the Museum. The reading of his brief and exciting narration helped to show Moreno's clear vision and his personal commitment.

In the presentation of this book, the Executive Committee of the Foundation underlined these concepts:

"The Foundation involves a cooperation commitment of people to enable and back up the achievement of the ultimate scientific and cultural mission developed by La Plata Museum... This objective is fostered and also strengthened by the spreading out of the tradition and experience of the institution and of its founder. Both the Museum and Expert Moreno are examples for Argentina. Making their lives and work known is a nice and permanent commitment for those who direct the Foundation."

The present Executive Committee, completely identified with these concepts, considered that the right moment to present the book "Expert Francisco Pascasio Moreno. A Civil Hero", especially dedicated to our young people, was on May 31, 2002, at the 150th anniversary of Moreno's birth.

The purpose is to make Moreno's life and work known so that the reading of the described heroic actions could awake noble feelings in young people and stand out the work carried out by La Plata Museum during the period in which Moreno was Director.

Founded in 1884 and opened to the public in 1888, by 1890 La Plata Museum, with nineteen exhibition rooms, was already known and considered one of the best all over the world. Moreno, who always had great objectives, decided that this institution had to be at the service of the country. So, with the support of the national government, in 1893 the Museum explorations began and they continued until 1896. During that time, commissions made up of more than twenty scientists and technicians from the Museum, led by Moreno, visited vast areas of our territory, discovered its potential riches, gathered important geographic information and surveyed thousands of square kilometers of almost unknown lands.

We hope that this book will be useful to learn to love more our Museum and our country and that it will contribute to awake vocations and to strengthen the already existing convictions in the mission of being helpful, eager and courageously, as Moreno wanted and put into practice.

When the publication of the book "...A Civil Hero" was decided upon, we all agreed that Dr Hector L. Fasano was the right person to achieve this purpose. His passion for Moreno's personality, his eight years as Director of the magazine MUSEO, his intellectual capacity and his professional and teaching experiences are harmonically combined and prove his authority to face the great task of making the publication of this book come true.

Founder member of our Foundation, Dr Fasano has been secretary of the Executive Committee for eight years and at present he holds the post of first ordinary member. He belongs to La Plata University; he has been working as a professor at the College of Exact Sciences for forty years and he has been dean of that College in three different periods.

The Executive Committee is deeply grateful to Dr Fasano for his dedication, effort and endless enthusiasm to carry out such a difficult task, undertaken with passion from the very beginning, and to translate all his admiration for Francisco Pascasio Moreno into this book.

La Plata, May 2002

We wish to thank Cecilia Leoz for her valuable and disinterested collaboration with the English version of this book, which has much contributed to the merit of its contents.



Executive Committee of La Plata Museum Foundation "Francisco Pascasio Moreno"

CHAPTER I

CHILDHOOD Adolescence



HIS FAMILY, HIS EDUCATION, THE PASSION FOR COLLECTING, HIS DREAMS

HIS FIRST MUSEUM

EXPLORATIONS IN LAGOON VITEL

MORENO MUSEUM

PUBLICATIONS IN THE REVUE D'ANTHROPOLOGIE OF PARIS

EXPEDITION TO CARMEN DE PATAGONES rancisco Pascasio Moreno, the Expert Moreno, was born in Buenos Aires on 31 May, 1852. His father, Francisco Facundo, had returned to this city in 1852, after staying seven years in Montevideo as exile. His mother, Juana Thwaites, from English ancestors, died prematurely in 1867 due to cholera epidemics that hit Buenos Aires.

About my paternal grandfather, says Moreno, I only know that his name was Francisco Moreno, who was born in Spain and came to Buenos Aires to work in trade at the end of the 18th century... My grandfather married Maria Antonia Visillac, from Montevideo; they had ten children: eight of them died during childhood and two survived: Francisca and Francisco Facundo, my father.

Among the members of my father's family, I remember having heard about an old aunt that traveled, taking with her a big trunk where she put any curious object she found on her way.



Standing: James (Diego) Sharples and Francisco Facundo Moreno. Sitting: JuanaThwaites Mrs. Moreno, Josue Thwaites and Mrs. Elisa Thwaites Sharples.

My mother's grandparents were Jose Maria Rubio, Spanish, man of heraldry, and Juana Rivero, Argentine; out of their children, ten reached adulthood; the women got married to Spanish, Dutch, German, Scottish, Irish men, and two women, one of them was my grandmother, to English men.

My grandfather, Josue Thwaites, met my grandmother at a ball where Ayacucho triumph was celebrated. Later he formed, together with her, his family, settling in his ranch of Chascomus.

My mother was the first child of the twelve offspring of that marriage. Her name was Juana, a woman of outstanding characteristics, who died during the cholera epidemics that broke out in this capital in 1867. She was victim of her noble heart, which led her to assist a worker suffering from this disease. Undoubtedly, I owe my irresistible affection for the needy to her example...

Francisco Pascasio was the eldest of five children, two girls and three



B. Mitre and Uruguay. Present photograph.

boys. He was born and lived his first years in a house situated in Paseo Colon and Venezuela; in 1866 the family moved to a residence on the corner of Piedad Street (today Bartolome Mitre) and Uruguay. He stayed there for several years and in its watchtower his first museum was founded. Later, in December 1872, his father bought a property in Parque de los Patricios, a country house occupying several blocks. There was where Moreno, at the age of 20, received an excellent present: a building for "his museum", with two rooms.

In the family, Moreno was called "Pancho" and he signed his letters under this name. His father called him, when young, Pangolin (little toothless mammal,

covered with imbricate scales, common in tropical regions of the ancient world); because of his love for unburying and classifying bones, his brothers nicknamed him "the fossil".

His father always paid attention to his children's education, respecting and even encouraging their interests. In this respect, the following anecdote turns out to be interesting. As Francisco Facundo thought convenient that his children were in contact with his company activities – La Estrella Insurance Company, founded by him – he took them there on holidays in order to teach them its management. Mr. Villalba, a company employee, was in charge of helping them in this chore. In his written report to Francisco Facundo, he expresses: "Mr. Moreno, I can get something from your sons Josue and Eduardo, but nothing from Pancho as he is always studying bones". What was his father's reaction? Far from being upset, he stimulated vividly his son Pancho.

The period between his childhood and adolescence is remarkably important as during this time his ideals were born and founded: his museum, "a child's dream", as he himself expressed, to which he devoted all his energy. Moved by the eagerness to increase his collections, he began to carry out explorations in nearby places: banks of Rio de la Plata and Lagoon Vitel (Chascomus County), and in 1873 he made his first trip to the south as far as Carmen de Patagones.



The period of Chapter I begins with his birth -31 May, 1952and ends with his first exploration to the south – Carmen de Patagones– carried out in April 1873.

This is an overall description of the main events of these years.

In Argentina and South

America. After Caseros battle, 3 February, 1852, Rosas disappears from the political scenario and Urguiza becomes the main protagonist of the new stage. On 25 May, 1853, the National Constitution is approved and two governments are formed: one of the Confederation, based in the city of Parana and presided by Urquiza, and the one of the Province of Buenos Aires, which puts into force its own Provincial Constitution and chooses its governor.

This situation lasts until 1859 when San Jose de Flores Treaty is signed and Buenos Aires secession finishes. The way to the national organization is then started.

In the rest of South America, the institutional organization shows common features: civil wars and changes of government are frequent, interrupted by long and cruel dictatorships. At this time, only Chile (1833), Mexico (1857), Venezuela (1864) and Peru (1869) have promulgated their constitutions.

Europe and the United States of America. Between 1852 and

1873, Europe faces periods of wars and agitations. In the 1850s, it withstands the Crimea War: Russia against Turkey, France, England and Italy, which ends in 1860. In 1870, the French-Prussian War takes place and it ends in 1872 when France is defeated and the German empire of William I of Prussia is established.

In the United States, the Civil War takes place: it begins in 1861 and ends in 1865 with the defeat of the South.

1852. On 3 February, Caseros battle takes place. Rosas is defeated by the army



lusto I. de Urauiza commanded

by Urquiza and thus his government finishes after seventeen years.

Urquiza invites the governors to a meeting in the city of San Nicolas de los Arroyos. Then, on May 31, an agreement is signed by means of which a Constituent Congress is summoned. Buenos Aires states its opposition to the established conditions and, on September 11, it is separated from the rest of the nation.

Francisco Pascasio Moreno is born on May 31.

1853. The National Constitution is sanctioned.



David Livingstone, Scottish missionary Livingstone

Davia



Then his interest for the Patagonia aroused and this would become the main objective of his future actions. Moreover, when he was only 20 years old, he realized the need to know and study thoroughly its geography in order to acquire indispensable knowledge to be able to determine, scientifically, the limits between our country and Chile, avoiding dangerous controversial situations.

All this clearly shows that the main three objectives that Moreno managed to achieve during his lifetime: the fulfillment of a museum, the acquisition of knowledge of the Patagonia and the Andean region, and the establishment of boundaries with Chile, were conceived –or dreamt?– in his first twenty years.

Moreno kept vivid memories of this stage in his life which were useful for guidance and inspiration; reading famous explorers of the 19th century, especially Livingston, stimulated his thirst for adventure; the descriptions and stories about our country by Dr Juan Maria Gutierrez, his father's friend and President of Buenos Aires University, frequent visitor to social meetings in Francisco's house; Dr German Burmeister's teachings, director of the National Museum of Buenos Aires and many others.

As regards his exciting love for his land, Moreno said: ... when observing the return from the battlefield of soldiers who had taken part in the long and distressing campaign to Paraguay, I believe it was then, for the first time, that I thought how I could serve my country... That flagpole which belonged to a flag, now reduced to threads, what a great influence for my spirit!

This synopsis of a stage in his life is intended to transmit his essence and meaning. However, for his appraisal and a better understanding as a human being, it is convenient to refer, in more detail, to some aspects in this period, quoting once and again words of the protagonist.

is Education, the Passion for Collecting, his Dreams. Since a little child, Moreno was very much attracted by the natural history and the collection of everything he found interesting.

When looking back at his life, Moreno remembered an aunt of his father, an eager traveler who used to collect different materials and to show them, at his astonished eyes, when he visited her house.

I recall, Moreno said, having heard in my childhood that one of my father's aunts, a tireless woman, restless visitor of all relatives spread in half southern America, traveled at the beginning of this century (1800) with a big trunk where she put any curious object that called her attention during her journeys; easy task then when the cart was the only vehicle that middle and high class used. The slow movement of the oxen allowed this woman to examine all on her way. From the boundary of the Banda Oriental del Uruguay



to Colonia del Sacramento, where the cart passed to the boats that linked both river banks, the curious traveler picked up colorful stones with extravagant shapes, and when she reached San Jose de Flores, to my grandfather's house, she drew out her treasures from the big trunk, in presence of children and adults, all astonished of such wonders. The tradition of these family scenes has undoubtedly influenced me, since I was very little and I imitated my good father's aunt, beginning to collect nature things that I found at hand.

When he was already a teenager, at the age of fourteen, he walked by Palermo lands and Rio de la Plata cliffs picking up pieces for his collections.

Between 1863 and 1866 he went, together with his two brothers, to Colegio San Jose as intern. During this period, according to Moreno, *the amount of my dreams increased*. He listened attentively to the stories that

from the pulpit made the brother caretaker, in reference to trips and distresses of any missionary in far wild countries, and this together with his readings about Livington's extraordinary adventures and of the courageous English seaman John Franklin, gave wings to his childish dreams.

I le was impressed by other events that occurred during this time. He said this about the Triple Alliance War, ... they were impressions of my childhood that remained recorded with deep chisel... I don't forget the veterans of the Oth line coming back to



Playground of Colegio San Jose. Present photograph.



and explorer, travels through the African territory, before the beginning of the big distribution of land among the European most powerful countries.

1854. Buenos Aires is aside of the Confederation and its government presided by Urguiza is settled in Parana.

Both the Confederation and the Province of Buenos Aires develop an intense action of progress. The Federal Justice is organized, the General Administration of National Post Offices is established, the laying of the West Railway –10 kilometers– begins and the gaslighting service is opened. In addition, the European immigration starts.

1859. The relationship between the Confederation and the Province becomes more difficult; the Federal Congress requests Urquiza to re-establish the unity and he, of Bachger

heading the army, invades the Province and, on October 23, he defeats Buenos Aires forces commanded by Mitre in Cepeda.

On November 11, the treaty of San Jose de Flores is signed and Buenos Aires is thus incorporated to the Confederation.

1860. Our National Constitution is definitely established; Derqui takes over Urquiza as president. The Civil War in USA begins.

1861. Buenos Aires and the Government of the Republic come into a new conflict. Mitre wins Pavon



on Bartolomé Mitre

battle (September) and becomes provisional President. The secession war begins in the United States.

1862. On May 25, a National Congress chooses Mitre as president, who assumes his responsibility on October 12.

1865. The Triple Alliance War; Moreno witnesses the ravaged national battalions with their threaded flags along the streets of Buenos Aires.

Moreno's father founds the first



Horse Tramway

the momentary rest singing the immortal music...

They changed school in 1866; his father enrolled them in Colegio Catedral del Norte so that his sons acquired greater knowledge. Its headmaster, Monsieur Chanalet, deserved a particular fame for the orientation and level that he had provided to teaching.

Is it possible that the fact of knowing the passion that the Headmaster, as his sons, felt for the collections influenced him considerably? Shortly after entering this school, something quite unexpected happened; the

boys, who were bewildered at observing the displayed dissected animals, were greatly disappointed the day they knew, heartbrokenly, that the temple of science had been emptied. Moreno did not forget to mention this in his memories.

oundation of his First Museum. Despite this disappointment, the three boys knew how to overcome quickly this frustration and the "foundation of the museum" was not delayed. This took place in July, 1967, a Sunday when his father took his three sons to have a ride

near the river. When discovering stone mounds left by Uruguay River, they were surprised and immediately began to select jaspers and stones of several colors and they filled their pockets. There, Moreno and his brothers approached their father getting his consent to take the stones the Chanalet Museum

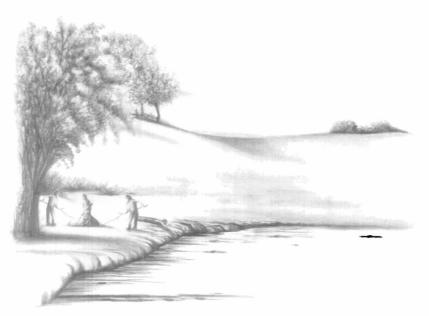
When going to our class, through the glasses of the main door, we daily saw the dissected animals that formed that museum: monkeys, alligators, boas, among others less interesting. How happily we would have entered that place, which we believed a science temple, and how big our disappointment was the day we saw the empty room and I was told Mr. Chanalet had taken his collection to Europe! I had already the idea of forming a museum, and the departure of someone who I believed would help in this enterprise destroyed that hope. However, its fulfillment was near despite Mr. Chanalet's absence.

home and put them in the watchtower and so it would become "his first museum". The date of this anecdotal event was considered by Moreno as the "beginning of his museum", as it is expressed in his letter sent to General Bartolome Mitre in 1892.

Dear Sir and Friend,

Yesterday I went to Buenos Aires with the intention of personally handing in the second volume of this Museum magazine, but imperative commitments... prevented me from accomplishing my wish.

I confess that my visit had an interest. I would like to ask you some work for the second volume of Annals that... is in press. If your collaboration has



Moreno and his brothers choosing jaspers and stones.

much value for me, in this case it will be even greater. Next July I will celebrate my silver wedding anniversary in the Museum; 25 years after the day when in Palermo I picked up the little stones that in the long run would be the basis of La Plata Museum, and as I am surprised at the fact that, in this land of changes, I continued with my first child impulse I would like to reward myself with the satisfaction of publishing then the second volume of Annals.

You know that I have begun a vast enterprise, which I will never see complete, and I would like, through my example whose only merit is my perseverance, to find someone to carry it on when I would not be here...

If you are kind enough to tell me when to go for the work I am asking you, I would really appreciate it. Your respectful friend.

The young brothers were not pleased with this first collection and foresaw other horizons for the future. Thanks to Francisco Facundo's collaboration, they opened the "Historical Section of the Museum", with some snails of the African coast, a starfish and grapeshot bullets, picked up by the donor himself in the historical Waterloo battlefield. Later a collection of stamps was incorporated. The three brothers enthusiastically decided to sign a contract to establish its basis for future organization and work.

Time passed and the museum continued to be enriched. Shortly later they received a surprise: Monsieur Chanalet, who had returned from Europe, visited and congratulated them, giving them some objects and a little aquarium as presents.



insurance company of the country; the first tramways pulled by horses are on the streets; the population increases in a third part; Argentina becomes the first wool exporter at worldwide level.

The Civil War finishes in the USA with the South surrendering and over six hundred thousand casualties.

Abraham Lincoln, president of USA, is murdered.

1867. The cholera epidemic, which causes the death of Moreno's mother, starts.

1868. Sarmiento assumes the presidency of the Nation. During his period, the first national census is carried out:



Immigrants

the country has 2,000,000 people, out of which 200,000 are foreigners.

Buenos Aires has 200,000 inhabitants and Cordoba –the second city in the country– does not reach



Domingo Faustino Sarmiento

30,000. Eighty Sarmiento per cent of the population is illiterate. The number of immigrants during his six-year presidency rises to 280,000.

mistorical Background

1869. The war with Paraguay finishes; the Civil Code written by Velez Sarfield is approved; in Cordoba the National Academy of Sciences and the Astronomic Observatory are created: the Escuela Normal de Parana is settled; over 1,000 schools are founded; the Scientific Society is formed; the decimal metric system is implemented; the first textile factory is opened; communications with Europe are increased through steam ships, from four to nineteen per month. In Buenos Aires, the first service of running water and the first paving are carried out.

The Suez Canal is opened.

1870. In the United States, the so-called Commercial Revolution has a great increment: small farms and workshops are absorbed by large companies.

1871. The yellow fever epidemic breaks out in Buenos Aires. This causes 14,000 casualties and an emigration leaves Buenos Aires with only a

third of its population.

1872. Martin Fierro by Jose Hernandez is published.



Jose Hernandez.

isit to Dr Burmeister. In 1867, something very important happened for the future of the museum and Moreno's work: the three brothers daringly decided to visit the Director of the Buenos Aires Public Museum, the German paleontologist German Burmeister (1807-1892), who had arrived in the country at the beginning of the 1860s to be in charge of the Museum direction.

Moreno and his brothers were surprised at his kind reception and at his interest in Moreno's collections. Subsequently, he went with them to the different rooms of the Museum. IIe promised to visit them and he did so almost immediately.

In addition, even when it was hard for him to climb the steep stairs to reach the watchtower, these meetings became very frequent. During these, Dr Burmeister often asked them for an object – and they



German Burmeister (1807-1892).

accepted, but with certain restraint – or he "plundered", as the brothers called his action. Pancho, in front of this situation, decided that Maruja, his eldest sister, paid attention and tried to avoid any "distraction" of their well-known visitor.

The collections grew quickly and the museum was not any more a children's game. Discrepancies aroused among the three brothers as regards its future. Josue and Eduardo were very fond of philately and wanted to enrich the stamp collection whereas Pancho insisted on putting a lot of effort into natural sciences. As they could not reach an agreement, Josue decided to become separated and to sell his share in three hundred pesos, to be paid in monthly installments. Later Eduardo would do the same; thus on August 9, 1868, at sixteen, Pancho became the Director and exclusive owner of the Museum he called "Moreno Muscum".

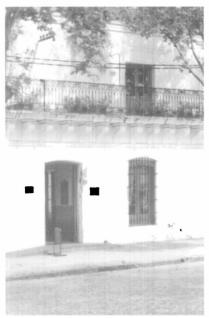
His activity, far from decreasing, increased. Convinced of his purpose of widening the field of his explorations, he traveled more than once to Lagoon Vitel, Chascomus County, about one hundred kilometers from Buenos Aires, where his uncle in law, Leonardo Gandara, had a rural premise. During these visits he picked up arrows, spears and a great amount of fossils which were added to his collections.



The kind attention that Dr Burmeister always paid to him became a solid friendship, despite the difference of age. In order to stimulate his

vocation, he baptized a species of fossil with the name of *Dasypus Moreni*, and asked Francisco Facundo to encourage his son. Moreno had free entrance not only to the Museum but also to the Director's office.

xplorations in Lagoon Vitel. These contacts were continuously kept until 1871, when they were interrupted since Moreno's family, due



History Museum of Chascomus (1872 construction) Present photograph.



Lagoon Vitel. Present photograph.

to the advance of a yellow fever epidemic, settled for a short time in the ranch of his uncle-in-law, in Chascomus.

The permanence there – which was extended for several months – was positive for Moreno to develop fully his explorer and organizer aptitudes. He created a real work team: his brother Eduardo became the driver of a plow beam cart, and he, helped by two young workers, began the activities of excavation and collection of fossils. He worked hard until exhaustion. The extracted material was carefully cleaned and placed in crates, which reached the amount of forty.

When the danger of the yellow fever finished, the family went back to

Buenos Aires with his precious load. Moreno began the classification of the material, issue that worried him much. He was lucky since in the city he met, together with Burmeister, Mr. Manuel Eguia, an expert collector in this task. With his help, he soon fulfilled this work.



After returning from Vitel, Moreno's father, Facundo, considered to move with his family to a country house situated in Parque de los Patricios, between Brasil-Caseros and Catamarca-Dean Funes streets. In the construction, already begun, he had thought of some rooms destined to the collections of his son Pancho.

oreno Museum. As the collected materials were so many, the available spaces were not enough to place them. There was a need to add more rooms to the house under construction or to project an independent pavilion. It was then that his father, convinced by Dr Burmeister of the scientific importance of the collection and of his young son's capacity and vocation, decided to provide the Museum with a proper building. He did so and the opening took place in December 1872 when Moreno was twenty years old.



Terebinth tree planted by Moreno. Present photograph.

The building façade, of classical Hellenic style, was similar to the one adopted by Moreno for La Plata Museum. It consisted of a room of 10 by 15m for the collections and a room of 5 by 10m for a laboratory and library.

Once the construction of the new museum was completed, Moreno decided to plant at one side a variety of a terebinth tree that reached an enormous size, becoming a true symbol. Under its shade Moreno wrote much and also knew how to enjoy the quiet moments that contributed – according to his own words – to strengthen his soul and recover his energies. In addition, there he gathered with poor children of the near neighborhoods, whose miserable lives marked his spirit deeply.

Moreno continued living in the country house until 1912, when the property was

subdivided by his father's inheritance. Today in that block, there is the building of Felix Fernando Bernasconi Institute. At its entrance, on 2750 Catulo Castillo street, there are big gardens, one in which the tree stands and has turned almost 130 years old. In the 1950s, there were acts of vandalism and the tree was victim of fire twice, threatening its life. However, the authorities of Bernasconi Institute made all possible efforts for its rehabilitation, so much that today it can be considered saved: new branches look bright and a sprout appears in the middle of the burnt trunks.

On a tribute plate placed by the national authorities at the bottom of the trunk, it can be read in Spanish: "National Commission of Museums and Historical Monuments, Act 12665. Historical place. Federal Capital. The expert Dr Francisco P. Moreno planted this terebinth tree".

The room built in 1872 was guickly filled, first with fossils contained in the forty crates from Vitel. Then, remains of the primitive inhabitants of Patagonia, sent by a businessperson from Carmen de Patagones, were added. Fond of explorations, this man became an enthusiast supplier of fossils.

Soon after opening Moreno Museum, an unexpected event caused a very favorable change in his way to the future: the arrival in Buenos Aires of a Belgian naturalist, Dr Eduard Van Beneden, friend of Professor Pablo Broca, lamous French surgeon (1824-1880), founder of the Anthropologic School of Paris.

Dr Van Beneden arrived in order to visit Dr Burmeister who, with the intention of giving him a better attention, asked Moreno to act as escort of the well-known visitor accompanying

him in his visits

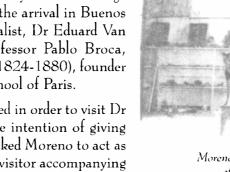
Moreno and his father in one of the rooms of the recently opened museum.

Pablo Broca (1824-1880)

is First Publication in the Revue d'Anthropologie. Indeed, what Moreno did first was to take Van Beneden to know his museum, which deserved preferable attention from the visitor. The collections that especially aroused his interest were the fossils of the primitive inhabitants of Patagonia. In relation to this, Moreno was moved to give Professor Broca a descriptive memory of these collections, which would be of his interest since they were

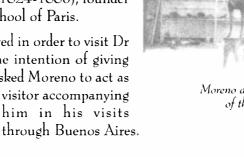
related to the studies that he was carrying out about man's evolution.

Moreno fulfilled this wish; the received information was very much appreciated by Professor Broca, who published it in the Revue d'Anthropologie of Paris (volume II, year 1874).





Facade of Moreno Museum (1872).

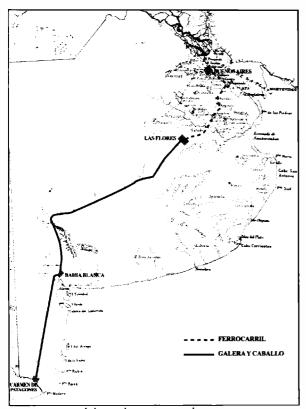




MORENO'S ARTICLE IN REVUE D'ANTHROPOLOGIE PABLO BROCA'S COMMENT

Mr. Moreno has just founded an anthropologic museum in Buenos Aires, where the collection he has gathered up to now is displayed and placed in the best order. He has sent us four photographs representing the room of his new Museum. The layout of the already numerous shelves and objects shows that it is not only a scientific collection, consistent with a disciple of Dr Burmeister. This Museum, created by a young man, cannot avoid growing quickly and it will be able to become as valuable for the study of races of South America as it was thirty years ago the Morton Museum for the study of races of Central and North America...

> ourney to Carmen de Patagones. The collections that called Professor Broca's attention were mainly the ones that came from the exploration carried out by Moreno in Carmen de Patagones, in April 1873. This journey constituted his baptism since it gave birth to his



Route of the exploration carried out in 1873.

irresistible passion for this region which ruled his whole life.

When he arrived at Carmen de Patagones, Moreno was received with all the privileges by his friend, the businessperson, who acted as a real escort. The young explorer had the opportunity of being amazed at the Rio Negro, of walking along its steep cliffs and green plains and of visiting the famous Patagones fort.

After a month, he managed to gather a collection of more than sixty skulls, a thousand of arrows and spear tips and other carved silex with which he returned for their classification and for placing them in his museum. However, the time was not the best to go to the west, without preparation and resources. He recalled his father's recommendations about this, he managed to control his anxiety and he soon returned to Buenos Aires.

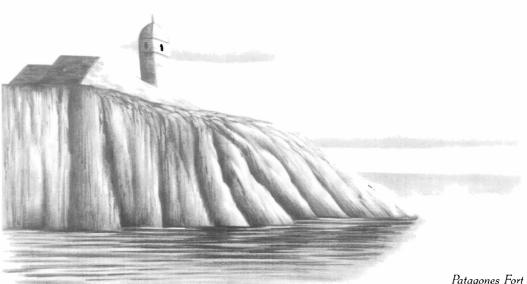
In order to realize the importance of this enterprise, carried out before being twenty-one years old, it is necessary to think of that time. The train reached Las Flores, and the vast distance between this place and Carmen de Patagones (approximately one thousand kilometers) should be covered by wagon and on horse, sorting out dangerous situations like the chasing of Indians.

There were only two towns on the way: Bahia Blanca, that . then had a much reduced population and Carmen de Patagones, founded in 1779 by Antonio de Viedma, that was, in his advanced fort, the national watcher of these isolated lands.

This journey put an end to a stage in Moreno's life – his childhood and adolescence - and the period of personal explorations carried out between 1874 and 1880 began.

Researches on anthropologic and paleontological topics undertaken by Moreno during this stage in his life, with such a promissory beginning, could not be continued. The post as Director of Museum as well as his responsibility as Argentine Expert in the boundary issue with Chile, meant an interruption in his scientific work. He stated so when resigning as Director of the Museum: The Direction of such a museum demands, tyrannically, the exclusive dedication of the whole life... Therefore, following this conviction, I have preferred to be a true director rather than a specialist researcher.

However, Moreno is considered as an important researcher of his time. Ilis contribution to the development of science in Argentina was extraordinary by encouraging and creating possibilities in this field. Thus, La Plata Museum with his direction became a center of excellence in a few years.



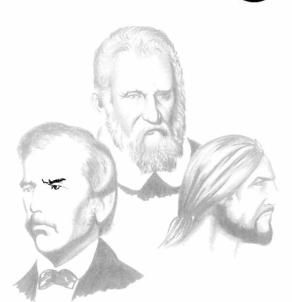
Patagones Fort (1779).

CHAPTER 2

IRST EXPLORATIONS

PERSONAL EXPLORATIONS EXPEDITION TO SANTA CRUZ





till a boy, reading adventures of Marco Polo, Sinbad the sailor, ... aroused in me a vivid wish to know lands... Livingstone's trips and explorations in Africa exercised in my predisposed brain a singular and unexplainable effect and kindled in my soul a feeling of pure admiration for these science martyrs and a living desire to follow, modestly, the example of such daring enterprises... My vocation was decided: I had discovered a scientific treasure and it was necessary to exploit it.

Francisco P. Moreno

This passion for the journeys allowed him to fulfill, at the same time, other dreams born in his adolescence: the formation of the museum and the acquisition of knowledge about the Patagonia and its Cordillera region.

Moreno, as explorer, proved to have outstanding aptitudes: courage and audacity, supported by a great physical resistance. That is why he gained the respect and admiration of the Indians – whom he also respected and admired in some aspects – who qualified him as *Huinca* (Christian) Bull Moreno or Valiant Moreno, the most flattering words they used. Moreover, the heroism that he showed when eating, immutable, the Indian dishes, consisting of raw meat from different origin and other food seasoned with hot mare blood, helped to conquer the Indian friendship and affection. During this period, he made four explorations:

I: To Santa Cruz, as far as the mouth of Santa Cruz river.

II: First expedition to Lake Nahuel Huapi.

III: To Santa Cruz, going up the river as far as its origin (Lake Argentino).

IV: Second expedition to Lake Nahuel Huapi.

When Moreno made these expeditions, Azul and Bahia Blanca – a very poor small village – were one of the main centers of the Province of Buenos Aires in the then civilized Argentina. Only Carmen de Patagones was the solitary and isolated guidance that led to the unknown Patagonian South. The train reached Las Flores and crossing from Azul to Bahia Blanca meant facing deadly dangers.

Nevertheless, perhaps driven by his excitement of discovering and exploring these desolate lands, "the damned lands" of Darwin, the Patagonia, became the main objective of his actions. It was necessary, according

to his own words, to know these territories as far as their very remote spots and convince the incredulous and indifferent people, with unimpeachable proofs, of the importance for our greatness if the Patagonia were appreciated in its real value.

First Exploration. Expedition to Santa Cruz August – December 1874

ackground. In 1874, due to the conflicts which had appeared in the south of our country in the boundary region with Chile, the Government decided to set up a special commission to explore the lands adjacent to Santa Cruz bay and to make a report on the existing situation.

In order to accomplish this objective, the brigantine schooner called Rosales was sent, commanded by Colonel Lieutenant Martin Guerrico. Knowing about this decision, Moreno visited the national authorities asking to become a member of the crew, for the reasons he stated. His request was immediately favorably solved.

In his note, he had underlined the convenience of exploring these regions and widening the geographic knowledge, indispensable to solve scientifically the natural limits between our country and Chile.

Objectives. Apart from those already mentioned, Moreno wanted to

1874-1880

Moreno's expeditions mentioned in this chapter take place during the presidency of Nicolas



Nicolas Avellaneda

Avellaneda (1874-1880), the third president of a period of institutional continuity started by Bartolome Mitre (1862-1868) and followed by Sarmiento (1868-1874).

This institutional continuity makes possible the development of some processes that contributed to the country progress, to a better quality of life of its inhabitants and to the rational exploitation of natural and human resources.

Even with an incipient political system, without a civic poll and without identity cards, the voice of public opinion begins to be heard, claiming for the improvement of institutions.

The diffusion of publications about several topics, known as *diarismo* in Spanish, contributes to this, encouraged by the low cost of paper and cheap labor. Another contribution is the public debate, *parlamentarismo*, in which the enthusiastic oratory plays a very important role.

As explanatory data of this period, it is worth mentioning the following: Avellaneda is the first president facing a real economic crisis, characterized

Historical Background

by scarcity of gold, monetary illiquidity, bankruptcies and a sharp fall in the price of its main exportation product: wool.

The crisis can be overcome by the application of a strict system of restriction in the public and private expenditure. As Avellaneda said, we had to save "on the hunger and thirst of millions of Argentine people" to solve the crisis.

In our country there are many social, political and economic progresses while in the world important technological and scientific advances take place.

carry out excavations in search of materials for study in order to increase the collections of his museum. As he was already bearing in mind the idea of going up Santa Cruz river as far as its origin, he thought that this expedition would be useful for acquiring, in situ, some previous experience.

Departure. From Buenos Aires port, August 1874, in the brigantine schooner Rosales to Santa Cruz bay with a stop in Carmen de Patagones.

Return. In the same ship at the end of December. 1874.

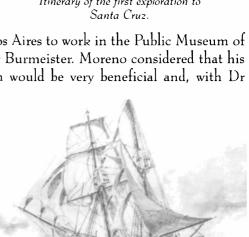
Duration. Four months.

That year, 1874, Dr Charles Berg, a famous

naturalist, had arrived in Buenos Aires to work in the Public Museum of Buenos Aires together with Dr Burmeister. Moreno considered that his participation in the expedition would be very beneficial and, with Dr

Burmeister's support, he managed to include him in the crew.

The ship stopped first in Carmen de Patagones and this was very advantageous for Moreno. From the scientific point of view, together with Berg, he had the possibility of collecting valuable fossils to be included in his museum.



Schooner Rosales.

His contact with the Indians was an interesting experience since he could learn about some almost unknown aspects of their idiosyncrasy. Undoubtedly, the acquired knowledge became very useful for his subsequent meetings.

The second stop was in Santa Cruz bay. Here the time was scarce to

URUGUAY SAN Aires MENDOZA RIO DE BUENOS AIRES LA PAMPA RIO NEGRO CHUBU SANTA CRUZ

SANTA

ENTRE

LA

CORDORA

SAN

Itinerary of the first exploration to

achieve one of his purposes: to make a short voyage on boat sailing up the Santa Cruz river. But, on the other hand, according to his own words, the contact with nature in this region helped him make up his mind that

he wanted to study by himself the complex geographic, historic and political scenario that concerned both nations.



A period of political

turbulence in the Capital altered the plans of the expedition. Thus, when reaching land again in Carmen de Patagones, they received the order to return to Buenos Aires immediately. They arrived at the end of December 1874.

This short exploration, though it was not altogether profitable as regards discoveries, contributed to intensify even more his passion for the Patagonia that would become the main objective of his future actions. Besides, during this trip, he met a young midshipman of only twenty years old, Charles M. Moyano, with whom he began a friendship and later, in 1877, he was one of the crewmembers of the boat, which went up the Santa Cruz river as far as its origin.

As soon as he arrived in Buenos Aires, Moreno began to classify the collected materials. In the first months of 1875, he went to the Province of Entre Rios, where he studied the formation of the littoral soil and he collected several samples of fossils. Soon afterwards he traveled to Blanca Grande Lagoon, to the west of Azul, where he walked through the Indian cemeteries. In Blanca Grande I saw for the first time the sad touch of silence ordering rest to those who, with weapons in their arms, always on the alert, were watching the western plain... always afraid of the Indian sudden attack...



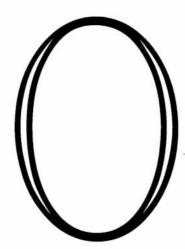
CHAPTER 3 IRST EXPEDITION TO LAKE NAHUEL HUAPI



SECOND EXPLORATION EXPEDITION TO LAS FLORES, BAHÍA BLANCA, CARMEN DE PATAGONES

COLLÓN-CURÁ VALLEY SHAIHUEQUE INDIAN CAMP, LAKE NAHUEL HUAPI

RETURN TRIP TO BUENOS AIRES



bjectives. The main objectives pursued by Moreno were to arrive at Lake Nahuel Huapi, to make its inspection and to find a path in the range of mountains that allowed the access to Valdivia, a Chilean city.

He could not fulfill the plan completely as the Lord of the Apples, Cacique Shaihueque, did not let him cross to Chile.

Duration. Approximately six months: September 25, 1875 – March 11, 1876.

Itinerary

Departure. September 25 from Buenos Aires (by train).

Buenos Aires – Las Flores (by train, 190 km).

Bahia Blanca – Fortin Mercedes – Carmen de Patagones (on horseback, 230 km).

Patagones – Chichinal (on horseback, 500 km)

Chichinal – Caleufu (Collon-Cura Valley) (on horseback and on foot, 350 km).

Caleufu – Nahuel IIuapi (on horseback and on foot, 80 km) Total of kilometers: 1820

Return. To Buenos Aires, March 11, 1876. Nahuel Huapi – Caleufu – Chichinal (on horseback, 430 km). Chichinal – Patagones (on horseback, 500 km) Patagones – Bahia Blanca (on horseback, 230 km). Bahia Blanca – Las Flores (by wagon cart, 470 km). Las Flores – Buenos Aires (by train, 190 km), Total of kilometers: 1830 ackground. After returning from Santa Cruz, in December 1874, Moreno was restless. His thought was ruled by the purpose of reaching Lake Nahuel Huapi, sure of the fact that, in the "region of the apples", he would find a path in the range of mountains to cross to the city of Valdivia, in Chile.

This planned exploration received such an importance that aroused the interest of General Mitre, shown at that time in the comments he expressed in a letter written to the Foreign Affairs Minister of Chile, Dr Diego Barros Arana. These are some paragraphs of that letter:

I almost forgot to tell you about another young naturalist who is our hope. Still very young, he has been known in Europe for his work published in "La Revue d'Anthopologie" of Prof. Broca... In the "Bulletin of Exact Sciences", he has published another work on the ancient times of the Indians of the Province of Buenos Aires... However, his best work is his anthropologic, archeological and paleontology museum, which has been established in his house, with objects he himself collected, among which there are more than 400 Indian skulls; this is undoubtedly the most complete American skull collection that



ndian skulls; this is undoubtedly the lete American skull collection that exists. He is intelligent and welleducated, he owns a vast American library and, above all, the passion for traveling and the courage to face all

dangers and difficulties to explore unknown regions.

...Ilis name is Francisco P. Moreno and he will soon visit Chile.

The young Moreno will make an exploration expedition. He will go through the pampas and cross the Cordillera. He will leave from Carmen de Patagones Fort and more or less follow Cox's itinerary but in the opposite direction, passing by Nahuel Huapi...

After meditating much, convinced of the importance of the planned exploration, he submitted a request to the Argentine Scientific Society, asking for an economic grant for its fulfillment.

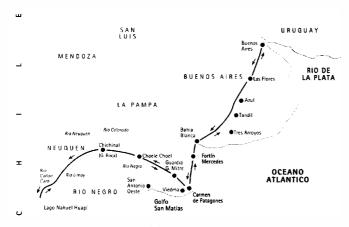
This note to be considered by the authorities had detailed information about the works and investigations that he thought of carrying out. In order not to be long, we make a passing reference to a paragraph that reveals his courage and practical sense.

I will start this expedition alone, together with some Indians. Great expeditions do not always render good results; it has been proved that the practical exploration of a country by a sole man is better than that by many together. When the Indians see armed men, they always try to stop their



1875. The typographical Union is created. This is the first unionist organization to fight for the decrease of working hours and the increase of salaries.

The first strike of workers takes place and they achieve to work no more than ten hours a day in winter and twelve in summer. 121210



Itinerary of the second exploration.

advance, as it happened with Villarino in 1872 when he was exploring the Limay and Rio Negro. Besides, it is not the same to supply food to twenty or thirty men as to one, who is accompanied by experienced people in this field.

This request was favorably decided upon in the meeting of the Argentine Scientific Society on September 15, 1875. At the same time, this institution submitted a letter to the Governor of the Province of Buenos Aires, Aristobulo del Valle, asking for his official support which was granted on September 17.

A week later after complying with the procedures, Moreno left Buenos Aires on September 25, 1875, on a train that took him to Las Flores, from where the expedition started.

rom Las Flores to Bahia Blanca by Wagon Cart. He did not stay long in Las Flores. Almost immediately he went on by wagon cart to Azul where he stayed some days. He advanced into the desert, where there were revealing smoking signs of the sudden Indian attacks. He was eager not to lose any detail of the journey and he asked the steward if he could sit next to him, in the coach box. The old criollo [white man born in the colonies] Calderon accepted and they both started an interesting dialogue which was very illustrative for Moreno.

When Calderon knew about his plan, he tried to persuade him not to go because of the great danger it entailed. However, he did not insist since Moreno remained very firm in his decision.

"Do not go, my friend, the chinos [term used for the Indians] will kill you!", Calderon told him. Later Moreno would comment this anecdotal event: But when you are twenty-three years old and in love with an idea, difficulties and bad forecasts are always ways of encouragement in order not



to abandon it. That is why I was not particularly shocked by the few moated settlements and their armed inhabitants, with the cattle pasturing under their fires: we had to continue.

After traveling several days, the wagon cart

reached Bahia Blanca, a very poor village that he had visited in 1873. Here he would stay less than a week, exploring the ocean coast towards Monte Hermoso, the place where Darwin studied the marine deposition.

The journey by wagon cart finished in Bahia Blanca. There he obtained a safe-conduct granted hy the "Military Command", which read "Dr Francisco P. Moreno goes as far as the Rio Negro via Nueva Roma, Salinas Chicas and Colorado, in search of medicinal herbs. Therefore, on behalf of the Argentine Government, we ask the Cacique General Manuel Namuncura, and all his subordinates, not to impede in any way this expedition or to cause him any harm.", Bahia Blanca, October 7, 1875.

n Horseback, towards Mercedes Fort. To travel on, Moreno needed proper clothes, horses and escort. He formed his own expedition with effort: two police officers, two Indians and five horses. In spite of his and his assistants' thin horses, they managed to make ten leagues to Nueva Roma Fort in one day, the first stage towards Mercedes Fort. The curious aspect that he and his group had is described in this funny letter sent to his father from Mercedes Fort on October 13, 1875:

My dear old man,

Only in the Quixote pictures engraved by Dore could you find a more ridiculous group. Imagine Pangolin in a "poncho" [a kind of cloak], linen trousers, torn half-boots and the bag hanging, riding a macaroon bay type, which cost \$400, escorted by two policemen who looked like newspapers sellers and two Indians mounted on "harps", somewhat worse than the famous Josue's^{*} tan horse.

Josue, his brother.

In this place, he had some unpleasant surprises: the Indians of the group ate the rest of the provisions: a piece of meat, hard bread and sugar, and left the expedition with the pretext that their horses were exhausted.

He did not lose his hope and traveled on with the only escort of the two milicianos [military men] provided by the commandant of Bahia Blanca. Two days later he went to Mercedes Fort, at the bank of the Colorado River.



A fort of that time.

In this village, he met Commandant Liborio Bernal, whom Moreno met in 1873 in Carmen de Patagones. A surprising event took place at his arrival. This commandant organized some parties, as an appropriate reception to the Indian Caciques Quenipumil, Yancermil and Guenupil.

These very original ceremonies called his attention vividly: the arrival in a huddle of about three hundred Indians, shaking hands with each



Celebration ceremonies when receiving caciques (Indian chiefs).

one, the turning round of the horsemen and their shouts, the interchange of solemn speeches and another series of strange rituals allowed Moreno to acquire some knowledge about the Indian idiosyncrasy.

The music band was superb, Moreno wrote; an embossed horn and a big drilled cane lined with a cow skin at the tip, which probably served as clarion, though its sounds were like an ass braying.

The second part of the celebration continued the following day, with incredible shows of horsemanship; numerous flying fireworks and firecrackers, the already

known drunkenness of all the Indians and always-present request of the Indian Caciques to the National Government: one thousand five hundred cows.

Moreno survived his baptism of fire since he had to participate in the horse riding performances, in the band as musician and in the banquets where he had to "stand" exquisite delicacies such as mare raw guts, seasoned with hot blood of the animal.

owards Carmen de Patagones. When the festivities were over, Moreno decided to continue his journey to Carmen de Patagones. The difficulties that he had lived – loss of part of his provisions and escort – made him feel a little disappointed.

He soon recovered with the help he received from the Commandant Bernal, who offered him an Indian prisoner as guide, who thus obtained his freedom, as well as four countrymen to drive the group of horses and fifty mares that would give food to the expeditions.

In order to get to Patagones, they had to cover 31 leagues (155 km) and they did so in thirteen hours without resting. In a letter written to his father, he described this galloping: ... I have galloped for thirteen long hours covering 31 leagues and amazingly my body did not feel anything though that night I slept on boards on my saddle. How strong I am! Everybody traveling with me was surprised, nobody believed that I could resist so much. Today I do not eat to write to all of you, I sat down at two and now it is 7.25. I have my fingers stiff of moving the writing pen. During his stay he traveled to the ocean coast, Punta Rasa, Aguada de los Loros, valley and mouth of the Rio Negro. He collected Indian skulls for the study of their morphology, he did some observations on Indians, races and habits, and analyzed the archeology and geology of the regions he explored. His work and studies appeared in the same report submitted to the Scientific Research Commission on March 14, 1876.

After going to the wedding of Commandant Liborio Bernal with a granddaughter of an old neighbor of the region, Dr Benito Crespo, he intensified

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View of Carmen de Patagones (1874).

the preparations for starting the great adventure: reaching Neuquen – in the confluence of the Neuquen and Limay rivers. To achieve this, he had to travel 600 km and then, from the confluence, he had to gallop 300 km more to arrive at Shaihueque's camp, in Collon Cura valley.

owards Collon Cura Valley. It was not easy to complete the expedition in order to arrive at Collon Cura valley where Shaihueque's camp was. Thanks to the help given by Commandant Bernal, things seemed to become easier and they felt optimistic again. This is what Moreno expressed in a letter sent to his father on November 16, 1875: I repeat that after each day I feel more confident about my journey; Commandant Bernal makes everything possible for our success... Bernal sends many presents to the Indian caciques under the name of the Argentine government. I take with me aguardiente [spirituous liquor], 10 fine ponchos gaucho's cloak], 10 chiripas gaucho's garment worn over trousers], 10 hats, 10 shirts and 10 pairs of boots, some magnificent pure silver stirrups for Shaihueque, etc. All this, together with what I will give them myself, will make them have great parties at my arrival. Bernal also gave me a wonderful tent of Major Sergeant, where I will live like on 128 Florida St.; and just in case the Indians want to have it, I will give it as a present immediately; doing this, I will be giving a present (though forced) fit for a king.

Conversations with the Indians who would serve as escort were very difficult and required a lot of patience and perseverance. Finally, they reached an agreement and they resumed the expedition on November 27, 1875. The following destination was General Mitre Guard, 18 leagues (90 km) far from Patagones, where he decided to stay some days to arrange some details related to his escort, which he wanted to reinforce.

He was lucky. In the Guard there was a group of loyal Indians, led by a *mestizo* [born of Indian and white parentage] called Miguel Linares, Shaihueque's nephew. This group had been formed to chase a band of Indians who stole cattle; Moreno took advantage of this situation and asked Linares to join his group, thus being sure of a convenient escort. The Linares was a family respected for their honesty; Miguel, one of the brothers, was known for his courage and knowledge of the region.

The tense situation that the Indians lived and the permanent troubles that he had to overcome were commented by Moreno in *"Reminiscencias"*:

Undoubtedly the moment chosen for my journey was not the best one. There were rumors about "Salinera" Indians uprisings and we continuously received news of their advancing in the frontiers... However, Nahuel Huapi attracted me more and more, better said, the unknown rather than the beautiful lake... I would like to contribute with my effort to the fact that those deserts were no longer such. Yes, the knowledge of its wealth resources would give us more strength to defend it, and the enthusiasm of my early youth would contribute, to open a path through which the civilization could reach the Andes... I would not stop before difficulties that other men, whose example I wanted to follow, had endured without complaining, pursuing the same ideals in extremely worse circumstances.

On December 6, they left General Mitre Guard towards Chichinal (today General Roca) 450 km far, where they arrived nine days later.

When they reached Chichinal, Miguel Linares discovered traces of the stolen cattle which he was searching for, and so, he left Moreno who, with the rest of his group, went on to the sources of the Rio Negro, where the Neuquen and Limay rivers meet, today known as *Confluencia*. They traveled only 10 leagues (50 km) but it was hard because of the shortage of food, consisting of raw guts of a tired mare or pieces of ostrich meat cooked on hot stones.

They got there without a stop, they took a short rest and prepared everything to cross the river with their horses and equipment.

In order to carry the equipment, they built a raft fastening four willow branches while the horsemen faced a raging torrent by grasping the manes of their horses, like Indians used to. After crossing and resting, they went on bordering the Limay river as far as the Picunleufu river, 120 km far from the starting point.

In this region, they found the first wild apple trees but the men were not near the valley; they crossed the Picunleufu river and traveled on. Three days later they arrived at the confluence of the Collon Cura and Limay rivers; they then left the river bed and got inside the basaltic narrow paths of the Collon Cura. They decided to camp on its banks.

Moreno sent a messenger asking for Shaihueque's consent to enter his domains. While he was waiting for the answer, he examined the region in detail.

n Shaihueque's Indian Camp. *Great Lord of the Apples*. At last the expected notice arrived:

Shaihucque and his court would welcome with all the honors the illustrious traveler, messenger of peace, who would bring words from the friendly government.

The five leagues that Moreno and his group had to travel through mountainous terrain were quickly covered, led by their anxiety. Therefore, at nine in the morning, they arrived at Caleufu Indian camp.

Shaihueque's camp was situated in the angle formed by the Caleufu and Ya la - Leu-Cura (stones make noise) rivers, that almost together flow into the Collon Cura, in a beautiful valley at the foot of the Hill of Tchilchiuma (dripping water) where the Caleufu originates in a little and beautiful lake.

Shaihueque appeared on his vigorous horse, dressed in his best clothes, accompanied by his court. They shook hands and a groaning music was heard: the singing of women expressing their happiness for the successful ending of the journey and complaining about the past troubles. They got off the horses and, next to the royal, tent they shook hands.

"My friend," the traveler said.

"Yes, friend," answered Shaihueque.

The conversation then began in the ample tent of the Great Lord of the Apples. The interpreter was Loncochino, "Secretary of the Superior Government of the Apples", a Valdivian *mestizo*, a liar and dangerous person, who would cause Moreno many troubles.

"Why are you here in my land?," Shaihueque asked.

"I have heard about the Great Lord of the Apples and about his great power over the other Caciques," Moreno answered. "That is why I have come to visit you as a friend and incidentally to collect some bugs, and, if the Great Chief allows me, to cross to Chile and return by sea to Buenos Aires."

Years later Moreno wrote as regards this visit:

I hope to have time in order to express my impressions in such a primitive



Cacique Shaihueque.

scenario, as I was the last traveler who lived this experience before the annihilation of those tribes, when they led the independent Indian life and were the owner of the pampas and mountains, only with the laws imposed by their own limited needs, feeding themselves from the animals of their lands, wearing clothes made by their own women and making war from time to time because of witchcraft or after drunkenness.

Shaihueque was suspicious about the aims the traveler was pursuing; he did not believe Moreno when he stated that the government of Buenos Aires was a friend, and he complained about not receiving the promised provisions.

As the dialogue was becoming tougher, Moreno decided to pacify the situation by starting in a ceremonial way the handing out of presents from the Argentine Government.

Later conversations convinced him that it was not convenient to insist



The Collon Cura River. Photograph taken by Moreno in 1896.

on his journey to Chile, and he would have to be satisfied with the attainment of the authorization to reach the Great Lake.

Moreno had not recovered from the difficult journey yet (we should remember that he endured ten endless hours on his horse, from five in the morning until three in the afternoon without eating) when, concealing his tiredness, he had to be present at the ceremony in which 453 horsemen were doing devilish jumps in his honor. He also had to repeat in long speeches his explanations about the aims of his expedition to the main Caciques:

Nancucheo, Molfingueupu, Huanguipichuin and Yankakirche.

Despite his eagerness to go to Lake Nahuel Huapi, he accepted Nancucheuque's invitation to visit his village on the mountainside of the Lanin next to the Chimechuin river.

He was really pleased he did so because another great cacique, Quinchahuala, was there, who trusted him and influenced Shaihueque to let Moreno reach Lake Nahuel Huapi.

Moreno remembered this meeting with Quinchahuala:

I owe to Quinchahuala, a good-natured Indian, the desired permission to reach Lake Nahuel Huapi, which had been denied at first.

I think I gained his trust after accepting and eating without apparent repulsion, a corn flour dish with mare blood and raw guts, with which he tested my praised friendship.



Just when the parties carried out at the Nancucheuque's village to celebrate the maidens' marriageability were over, he decided to return to Calcufu, where he met Shaihueque completely drunk. He had to wait three days for his recovery. When this happened, he took advantage of the situation, made use of his eloquence and finally managed to convince him to grant the authorization to go to the Great Lake.

owards the Nahuel Huapi. Before beginning his journey,

Shaihueque made him renew his promise of going only up to the lake. He took precautions to force him to respect this. He made him leave his bag and his family portraits, he extended the duration of his journey one week and he gave him little food: a sheep for him and his group.

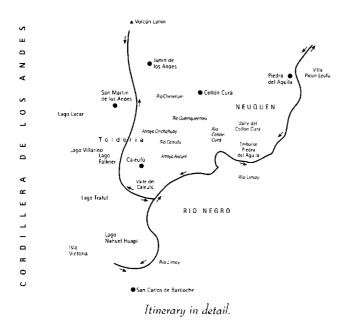
Moreno finally left, traveling along the Limay river, and after two days he reached Lake Nahuel Huapi, on January 22, 1876, thus being the first white man at the age of twentythree that arrived at the Great Lake from the Atlantic.

I le expressed his emotion when staring at the immense lake:



Monte Lanin. Photograph taken by Moreno in 1890.

When reaching the lake, I made the national colors reflect on its crystalline waters for the first time and I drank happily its cool waters in the sources of the Limay...It was easy for me to accomplish my objective, to put aside the difficulties with the strength of my will. What remained of the troubles, more



apparent than real? Nothing!

The spirit rested in place like the blue lake, without traces of previous troubles. Little was the effort made by the white man, who reached that place from the Atlantic.

eturning on horse: Caleufu – Chichinal – Patagones – Bahia Blanca – Las Flores (1630 km). Moreno rested for three days in Lake Nahuel Huapi. He would like to extend his stay to know the lake in detail, to go to the neighboring forests and to reach the snowy mountains on the western limit in search of the mountain range path but serious

reasons refrained his wishes: he got some news from some Indians about cacique Catriel's rising in rebellion and the great invasion that was being prepared, in which the tribes from the Cordillera would take part. He decided, then, to return immediately to Shaihueque's camp and from there to hasten his return to Buenos Aires and to warn the bordering villages.



Lake Nahuel Huapi. Present Photograph.

Shaihueque, together with his fellow Chacayal, received him in a cool and suspicious way. In the camp there was a hostile attitude against Moreno, whom was blamed for the inexplicable disgraces that occurred: illnesses, frequent thefts, Andean storms, the thick fog that covered the plateaus, and others.

However, the programmed parties took place in his honor but also in order to drive away the *Walichu* (devil) that had taken possession of the camp since his arrival. To get rid of the Indian anger, Moreno had to participate in the horse riding performances and to accomplish incredible feats

as well as to take part in animal sacrifices followed by abundant banquets of mare raw guts.

The party lasted three days and, when it finished, they continued drinking a lot and getting completely drunk as usual, fact that turned the Indians increasingly aggressive. So Moreno decided to move to the nearest mount together with his assistant and two old men from Shaihueque's tribes.

Three days later he returned to the camp where the atmosphere was calm and Shaihueque was sober. However, to avoid that the present quictness could be altered, he took advantage of a distraction and changed the spirituous liquor for water.

Two days later he said goodbye to Shaihueque and, on the splendid horse that he had received as present, he crossed the new Collon Cura river and entered the Limay valley.

He continued along the Limay river towards the confluence with the Neuquen. Farther away he met cattle herds of the plundered ranches in the province of Buenos Aires. This cattle was led mostly by women, as men were needed for the planned great invasion.

Moreno began a conversation with a group that was taking cattle to Chile. He passed himself as a Chilean cattle buyer and the Indian told him about a recent attack to a courier office in Bahia Blanca, where Major Jurado and the steward of the courier office of Bahia Blanca, the *criollo* Calderon, who had advised Moreno not

to continue, died.

Moreno mentioned his conversation with an Indian belonging to the group:

"And did they kill many Christians?"

"Many, and among them a commandant."

"Do you know his name?"

"Yes, Jurao."

Poor Major Jurado! I left him in Azul, afraid of my life, months before. I had answered: who knows who will be killed first? From the same Indian I learnt that they had also killed the steward of the courier office of Bahia Blanca, the good and brave Calderon whom I have already mentioned. I also knew about the beheading of a beautiful young girl, who had hidden herself under a cart in order not to be captured... And those events would happen again very soon! It was urgent to warn the defenseless frontier dwellers about this danger.

Due to the alarming news, Moreno hastened his return and to take precautions to ensure his continuity. As I did not have enough horses to arrive quickly to Patagones, I decided to take by surprise some horses the Indians had.



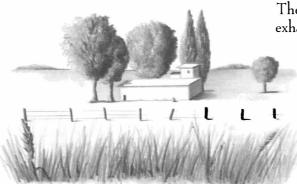
We put the saddle slowly in order not to look suspicious...Once on horseback, we bumped the Indian horses and we continued very fast. Almost all the Indians were not on their horses at that moment and even when some of them tried to follow us, some shots of my revolver stopped the movements of their spears.

I le went on quickly to the confluence of the Limay and the Neuquen rivers; dark at night, he decided to camp ten leagues far from Chichinal.

The following day the journey went on without interruptions: From Chichinal, we had 25 horses, apart from ours, and thanks to this I arrived without much trouble at Carmen de Patagones; always galloping with our minds in the frontier dwellers, ignorant of the serious danger that was threatening them. We had just one day to change some animals and again on our horses. In two days, I traveled to Bahia Blanca (240 km), and without resting, again traveling, day and night, towards the north. I had good horses; Shaihueque had given me a beautiful and strong animal, which I kept for the last stage, and in Patagones I had obtained another that was quite good but it died in Bahia Blanca.

One afternoon I managed to see a place, where the prosperous city of Tres Arroyos stands today. Then there was only a hut under construction for police forces accommodation. My horse suddenly stopped there and fell down as the previous one. I arrived at the hut walking alone where they gave me new supplies to continue.

From Tres Arroyos, he traveled the following day towards Tandil, 160 km far away. When passing by the ranch "La Juanita" belonging to the Basques surnamed de la Canal, he approached the building to warn them about the future attack.



"La Juanita" Ranch.

The journey became tiring because of the exhaustion of the horses. At night, having lost

his way, he decided to camp at the bank of a little lagoon and lay the saddle under the protection of a plant.

At dawn, the way got clearer and he realized he was very near Tandil, where he arrived early in the morning. The first thing he did was to wake up the Civil Judge to inform him of the further attacks and, while the horses were being prepared, he took

some time to visit the then famous moving stone.

Soon he returned to reality: again on the saddle and galloping during day and night. He could not waste time. He had to ride 140 km more to get to Las Flores. Years later, in *"Reminiscencias"*, Moreno remembered the episode in "La Juanita":

Could there be anyone alive of the Basques of "La Juanita" ranch to remember the man that one day, long ago, from a palisade asked them for water and shouted to be careful as the terrible Indian attack was near? More than once de la Canal men had remembered my warning in a hurry when I passed by their ranch and asked them for change of horses... We shall save the family but the cows...! They saved the family; the

cows were taken by the Indians a week later. The Basques of "La Juanita" resisted but I think that some of them lost their lives.

As regards the Basques de la Canal, Mrs. Adela Moreno Terrero de Benitez wrote the following in her book *"Recuerdos de mi abuelo Francisco Pascasio Moreno"* [Memories of my grandfather Francisco Pascasio Moreno]: "Almost one hundred years later, I could verify that the Basque family de la Canal was saved. In an opportunity, while I was preparing the wedding tables, a family surnamed de la Canal requested my services. When they knew my last name,



Moving stone in Tandil.

they asked me if I had a relative called Moreno and I answered that I was his granddaughter. Moved, then they told me: '*Thanks to your grandfather uce are alive*'''.

Before beginning this stage, he needed to renew the horses; in Tandil he obtained very little. In a ranch next to Rauch there were horses, but he arrived at ten at night and people were sleeping. He insisted and a voice answered: *"Take the horses that are in the yard"*.

I got on my horse... I am not a good horseman, my bended legs are not always prepared when the horse is frightened and I had that night the tenth hit of the day. I only had half a lens in my glasses...

FOR STREET

Finally he reached Las Flores; in the condition he was, dirty, smelly, ragged, and carrying his little load of saddle, he got on the train.

In connection to this train trip, Moreno told this anecdote:

You are wrong, good man, this wagon is first class... two distinguished ladies from Buenos Aires told me. I smiled, covered myself with the poncho of the pampas and sat in the corner, hoping that in this way they could forgive my audacity, but I listened. Poor Moreno, it seems that he was captured by the Indians in the Cordillera, according to the news from Chile... Let me explain, ladies, the news is not accurate. They looked at me in surprise... And how do you know? Because I am Moreno! Moreover, thanks to the



friendly chat, because both of them were my sisters' friends, the trip turned out to be short.

He arrived in Buenos Aires in March, 1876. Six months had passed since his departure on September 25, 1875, and during this period he traveled 3650 km, 2330 on horse and the rest by wagon cart and train.

His return trip was a real odyssey: from Caleufu to Las Flores (1640 km) without stops, galloping day and night, in a desperate running before the threat of an incipient Indian invasion, he managed to reach Buenos Aires three days before the Indian attack, which took hundreds of

human lives and thousands of cattle.

Unfortunately, the necessary precautions had not been taken in the city since both the telegraphic messages and his immediate communication with the War Minister, on the day of his arrival, were unheard. Moreno expressed that someone at his arrival said: "they don't believe you, they say these are things of a fearful young man".

CHAPTER 4 XPEDITION TO THE ORIGIN OF SANTA CRUZ RIVER



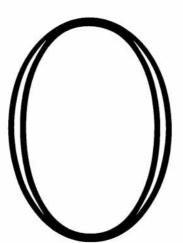
THIRD EXPLORATION

SEA VOYAGE WITH STOPS AT THE MOUTH OF THE CHUBUT RIVER AND PUERTO DESEADO.

EXPLORATION TO LAS SALINAS AND LEONES ISLAND. VISIT TO PATAGONES INDIANS.

PAVON ISLAND. GOING UP THE SANTA CRUZ RIVER. ARRIVAL AT ITS SOURCE: LAKE ARGENTINO.

EXPEDITION TOWARDS THE NORTHERN LAKES: SAN MARTIN AND VIEDMA. RETURN TRIP TO BUENOS AIRES



bjectives. Reaching the origin of the Santa Cruz river ... a problem which was not completely solved yet, finding out the real situation of the Cordillera in the area of the Strait of Magellan and confirming the Argentine rights in the lands situated to the east of the Andes.

Duration. About seven months: from October 20, 1876, to May 8, 1877. Itinerary

By Sea on Schooner Santa Cruz.

Departure. From Buenos Aires, October 20, 1876.

Arrival. At Santa Cruz bay, December 21, 1876 (2700 km).

Stops

First. The Chubut River mouth, November 15, 1876 (1750 km). Second. Puerto Deseado, December 14, 1876 (630 km).

Third and last. Santa Cruz Bay, December 21, 1876, and Pavon Island, by boat (370 km).

Total of kilometers: 2750

Explorations by Land.

From the Chubut River mouth (1000 km). From Puerto Deseado (200 km). From Pavon Island to Las Salinas, Leones Island and to a Patagones Indian camp (320 km). Total of kilometers: 1520

Going up the Santa Cruz river as far as its origin (Lake Argentino) (by boat, 300 km). Exploration to Lakes San Martin and Viedma (300 km).

The Return

Lake Argentino to Pavon Island (by boat, 300 km). Pavon Island to Punta Arenas (on horseback, 500 km). Punta Arenas to Buenos Aires (by steamer). DUBU REACICO PAGALON

After his arrival in Buenos Aires from Nahuel Huapi, in March 1876, Moreno did not rest for a long time because he wanted to continue his explorations.

Particularly, he wanted to accomplish his failed purpose of going up the Santa Cruz river which he had been forced to postpone in 1874.

He, then, projected a survey trip that was under consideration of the national authorities. This was quickly approved by the president of the Nation, Dr Nicolas Avellaneda, and his minister of Foreign Affairs, Dr Estanislao Zeballos.

To fulfill this objective, the Nation put at his disposal schooner Santa Cruz under Luis Piedra Buena's command, two sailors and a ship boy, as well as a rowing and sailing boat for navigating the Santa Cruz river and food for the trip.

These provisions for the programmed explorations were not in agreement with the ones requested. In connection with this, Moreno said:

From the very beginning, the travel posed serious difficulties: the provisions, perhaps by mistake, were very scarce and the boat was too big and heavy. Besides, one of the sailors was ill. However, it was too late to solve this. The ship had been delayed at the port and the captain was urged to depart. That is why, at 12 on October 20, 1876, the Santa Cruz weighed anchor.

The assigned ship, of only 100 tons, offered few facilities but, on the other hand, it carried a good partner, its captain Luis Piedra Buena, ...brave and modest compatriot who, at any time, gave me curious data about the southern lands which he has gone through during his eventful life as naval officer and the relationships he has built in his travels for 20 years now.

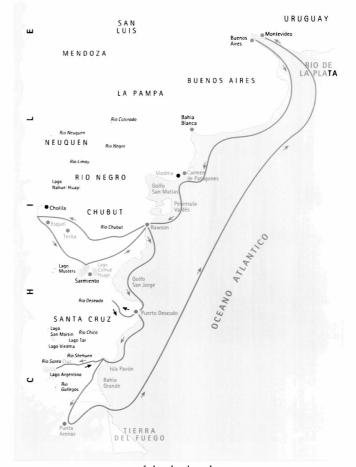
During the sea voyage, Moreno was very concerned about the characteristics of the boat and his crew. The barge (for eight rowers though he had asked one for four) was very big as it was 5.50m long and 1.20m wide and extremely heavy. It did not meet the convenient marine requirements for such a difficult and risky voyage.



1876. The Argentine railway reaches 2500 km and its construction constitutes an important source of work for immigrants and a radical change in the economy of the country.



Railway.



Itinerary of the third exploration.

Historical Background

The German engineer Otto Nikolaus patents the four-stroke engine.

The American Alexander Graham Bell patents the telephone.



Porfirio Diaz A.Graham Bell. becomes president of Mexico after a revolutionary movement and he keeps the power until 1911.



Porfirio Diaz.

As regards the crew, it was not enough to ensure the navigation through the river. However, in this sense, an occasional circumstance turned out

to be very gratifying. Francisco Estrella, a harbor pilot of La Plata River, who was a boatswain in Santa Cruz, wanted to visit new lands.

Moreno immediately approached him and after long conversations he managed to convince him to join the adventure: Thus my crew had an energetic man, used to the sea and to the pampas, where he had been to as soldier.

hubut River Mouth. First Stop.

Explorations. On November 15, almost a month after the departure, the ship reached land in the mouth of the Chubut river, in the place where the Welsh colony had settled in 1865.

The national commissioner and administrator of the colony, Mr. Antonio Oneto, already knew of their arrival and, during the night, he lit big fires at the seacoast to show his position.

Moreno stayed twenty five days there, a period that he spent exploring the valley and its surroundings. In his book Viaje a la Patagonia Austral [Expedition to the Southern Patagonia] he recorded his observations of this region as well as information about the Welsh colony.

In his expeditions, he reached the region where nine years later the Lieutenant Colonel Jorge Fontana founded the Colonia 16 de Octubre,



WeIsh colonists.

situated in Esquel. Moving down to the South, 120 km far from the Chubut river course, he traveled along the Senguer river basin and found two big nearby lake pools. He named one of them lake Musters; the neighboring one is known today as Colhue Huapi (then Coallo-Huapi). At present, they constitute an important tourist center with a nearby village called Sarmiento, founded in 1897.

Moreno's observations on the hydrographical network of the Chubut river were very important. The ample information he obtained was used successfully when he had to work as Argentine Expert in the boundary controversy with Chile.

In addition, he gave interesting data about Rawson and Gaiman (in Welsh, white stone) villages, nowadays a picturesque town situated in the valley through which the Chubut river flows. Then its population consisted of 509 Welsh adults, 35 of several nationalities and 159 Argentine people, 150 of whom were born in the colony. The inhabitants lived scattered in

L. Piedra Buena.

120 houses, throughout an area of almost 200 km from East to West.

As always, he did not forget his museum. He took advantage of his explorations to enrich his collections: shark teeth, oyster fossils, fragments of turtle shells, a crocodile tooth, oyster valves and several other elements were collected for his museum.



16 de Octubre Valley. Photograph taken by Moreno (1896).

uerto Deseado. Second Stop.

Explorations. On December 10, 1876, the schooner continued its voyage to the South, and four days later he arrived at Puerto Deseado.

In front of the place where he cast anchor, on the hilly slopes, there were still traces of the fort that Francisco de Viedma had built in 1780 as ordered by the metropolis. This construction, which aroused Darwin's admiration in 1837, had been reduced to a pile of stones when Moreno arrived.

The Director of the Department of Immigration wanted to have information about Puerto Deseado, to colonize it in case they found it convenient. Moreno also had another aim.



Lake Musters. Present photograph.

Driven by a strong eagerness, he wanted to carry out a hydrogeographical survey of the Deseado river, about which there was little and contradictory information.

Consequently, a day after his arrival, on December 15, he decided to set sailing on the boat supplied by the national government. Then, the voyage through the bay waters started westwards, following the expedition route that Fitz Roy together with Darwin had taken.

At the beginning, through salty waters, the navigation continued without difficulties and a slight breeze allowed hoisting sails. Nevertheless, as they sailed on, the hills got nearer, the bay narrower and the voyage became difficult. At midday, after more than six hours of navigation, they arrived at the furthest point that the English expedition of Fitz Roy reached. It was impossible to go on the boat that quite frequently ran aground. The water began to get turbid and its taste was less salty.

He then continued on foot. He left the boat under the care of three men, with the order of getting far from there gradually with the tide, so as not to run dry. With other two men, he went deep into the great ravine. He could confirm that the stream became fluent and muddy; the water, though drinkable, was not completely fresh.

Based on his observations, he drew the conclusion that the reports published in Buenos Aires about the Deseado, describing it as a river of capricious flow and violent torrent in spring, were far from reality.

> Darwin, who examined it in spring, qualified it as a simple stream. Perhaps this river descended from the Cordillera and it may have been obstructed by a significant geological feature near its sources.

> The following day, at 1 at night, Moreno and his mates reached the boat and after resting some hours, they went to Santa Cruz anchorage.

anta Cruz Bay – Pavon Island. Third Stop.

Explorations. On December 17, they left Puerto Deseado towards Santa Cruz bay and, on the 21, they anchored at its entrance.

As soon as they disembarked, Moreno decided to travel to Pavon Island, located at about 50 km from the mouth of the Santa Cruz river. Together with three partners, they started the navigation by boat.

At times, the voyage was hindered by ...the kelp or Macrocystis; thin leaves of this plant are entangled in the oars and their strength is not enough to cut the long green strips of dozens of meters that the tide makes flow from the ocean to the interior of the bay. This reminds me of the beautiful river plants that, descending from the far corners of Bolivia and Brazil... float on the plain Plata bay.

Through a poetic language, Moreno showed his admiration for this immense and nice plant that floats freshly and quietly in the middle of storms and keeps the calm in the places that are covered by its good-natured branches... The sublime law of harmony, which governs everything invisibly, could not have chosen a better place for its development than this desolate Antarctic region. Then it is the main element of a powerful life...

After midday, when the tide began to decrease, the advance was very difficult; in the afternoon, the low tide was complete and it was impossible to continue.

> As my wish is to arrive at the island tonight, I leave the sailors in charge of the boat so that, when the tide becomes high again, they can go on rowing; I continue on foot with Estrella.

> > He could not accomplish his wish; the muddy and wet land with high grass blocked

the way and they decided to spend the night on a little beach. Not having any kind of cover to wrap us up, there is no other way out than to pile up little sand to prevent the swamp humidity from getting into the body; we put a sack full of stones and plants as pillow and we cover our heads with handkerchiefs and wet hats. This is little defense against millions of mosquitoes that bite us, while, in shirts, we neither sleep nor rest as legs and arms have to be in constant movement to fly away these uncomfortable insects.

On December 22, at dawn, he continued. They immediately made out ...a small column of smoke going up, horses, dogs and hens that neigh, bark and cackle respectively, announcing the civilized life in this remote Argentine place... A human figure appears on a little roof of a house..., a man crosses on horse the branch of the river that separates the island from the south plateau... and the figure wrapped in a quillango [fur blanket] arrives quickly: it is my old and well-known Isidoro Bustamante, gaucho from Santiago del Estero whom has been led here by coincidence...

Moreno and Estrella crossed the river by the ford and arrived at the island, accompanied by Isidoro Bustamante. There they met the second lieutenant Carlos Moyano, who let him know about his interest of going up the Santa Cruz river with them. In the afternoon, the boat with all the people arrived at the island.

When Moreno visited it, in the center of the island there was a main dwelling: ten people, four rooms, and a yard for the cattle and horses and a small vegetable garden. Life there was monotonous except when the Tehuelches Indians visited them in search of food and liquor, giving them in exchange "quillangos" and rhea feathers.

Pavon Island is located at km 54 of the Santa Cruz river, measured from its mouth, and it is followed by other eleven small ones.

It was so baptized by Commandant Luis Piedra Buena in tribute of the battle of the same name. It has a lengthened shape, 2500 m long by 200-400 m wide. Due to its privileged location – it was necessary to get into some kilometers from the coast – it could not be seen and, thus, it was not dangerous.

With the colonial store Luis Piedra Buena set up in 1859 (an adobe-walled hut, a hip roof made of trunks and branches, covered by mud), its life began.

Later other constructions and a fence that surrounded the Carlos M main house were added. On this palisade, there was a mast where the Argentine flag was always fluttering. In front of the houses there was a little cannon mounted on a carriage.

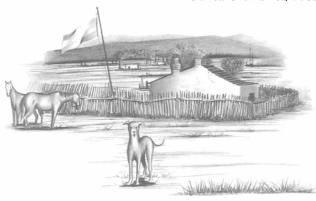
It was Piedra Buena's operation base, together with los Estados, Magellan and Malvinas islands: the only civilized place to the south of the Rio Negro, beacon and bastion of sovereignty. About twenty people



Carlos Moyano.

lived there, grew cattle and crops. Many visitors were put up there, such as George Musters, who stayed from mid 1869 until September, before embarking on his exploration trips.

o Las Salinas and the Leones Island. Before starting to go up the Santa Cruz river, Moreno wanted to make an excursion to Las Salinas



and the Leones Island and to visit a Tehuelche Indian camp.

In these expeditions which began on December 30, he was with Lieutenant Moyano and the gaucho Cipriano Garcia. They first went through the great salt pits at the south of Santa Cruz bay in order to study its origin, composition and possibilities of exploitation.

On December 31, at dawn, they continued to Leon Mount (more than 40 km to the south) which... *lies ahead, sad, arid, covered*

by glacial gravel and its abrupt slope perforated by numerous caves, where pumas live, while condors nestle in its peak. Guanacos, few rheas, some foxes escaping from wild dogs, are prowling.

In the afternoon, when the tide was low, they could cross without dangers to Leones Island, a plateau segment separated from the continent by the slow action of waters. The island, which was once frequently visited because of its guano deposits, is completely uninhabited, with thousands of birds nesting there.

As it was the last day of 1876, they decided to camp in a little lowland surrounded by beautiful hills, where the grass was abundant, ...and we properly celebrate it with a magnificent guanaco barbecue and a big jar of Indian tea, very nice (for these regions) made from aromatic Veronica elliptical leaves. After arranging the plan of campaign for tomorrow, every one goes to his "room".

On January 1, 1877, ...soon after wishing a "happy good new year", almost at the same time, to the people we know and love, we set out.

At sunset that same day, after traveling 70 km northwest, they arrived at Pavon Island, where all the members of the community gathered. Until very late at night, they had fun with the music of an accordion, a guitar and hand organs that Moreno had taken for the Indians.

Deeply moved, everybody listen to the National Anthem played by Mr. Dufour, the island administrator; the gaucho atmosphere and the happy parties of Belle Helene and Fille of Mme Angot give joy to our souls... isit to a Patagones Indian Camp. Moreno wanted his dream of visiting a Tchuelche camp to come true and he supposed he could find one near San Julian, a place where some tribes went to in winter, and stayed there until the parturition of guanacos.

An unexpected circumstance made his plans easier. On January 2, in the afternoon, a commission consisting of four Tchuelche Indians arrived at the island together with the "china" [term used for the wife or girlfriend of a gaucho] Maria, Pampa, married to the cacique Conchingan, whose village was in the Shehuen-Aiken Valley, adjacent to the Chico river. Maria went there to barter some fur blankets and rhea feathers for sugar, yerba mate, bread and, especially, liquor.

Respectful of the Indian idiosyncrasy, Moreno decided to receive them with all the ceremonies. He described this situation in *"Viaje a la Patagonia Austral"*:



Bridge over the Santa Cruz river. Present photograph.

It is necessary to receive these sons and daughters of the Pampas with the due solemnity to soften, with the ceremony, the disdain they may feel for the insignificant number of the expedition members... The flag is hoisted, the sailors are dressed in their best clothes, Moyano wears his uniform and the sword, and my only possibility is to wear an overcoat, which I have decorated with golden buttons and galloons, I keep for solemn occasions. The Indian is friend of the system and the poor ostentation that we are offering them can somewhat contribute to their respect for our mission. As it is necessary to have a title to balance at least the one of the cacique, I adopt the title of Commandant.

Moreno tried to flatter Maria, who spoke some Spanish as she had lived near the Rio Negro for a while. She gave him a *quillango* as present and his gift for her was two deep scarlet red blankets, thus sealing their friendship.

In addition, he gave presents to the Indians to conquer their will and thus to make it easier to rent or buy some horses necessary to pull the boat through the Santa Cruz river.

After some friendly attentions, Maria with her Indians went back to their huts carrying the food she had bought the Christians. Two days later, Moreno together with Moyano, Isidro and Garcia followed Maria and her Indians' tracks towards the Tehuelche camp.

In two days, they traveled the distance of 80 km to Pavon Island and on January 7 they made out great fires over which thick black smoke went up the sky: it was the signal agreed with Maria to indicate the position of the huts. Some minutes later some Indians approached to receive them. The sensation the traveler feels when arriving at a Tehuelche camp is far from the same as he feels when being received solemnly by Pehuenches and Mapuches... Here there is no previous ceremony, it is not even necessary to have the permission to enter their village...

In order to achieve his goal of getting horses, Moreno had to stay a couple of days in complete discomfort because they never cleaned their huts and the nauseating smell was impossible to bear.

He started his attempts with Cacique Conchingan who was very ill with a purulent ophthalmia, very common among Indians of the Patagonia. He received Moreno very kindly, but he regretted not being



able to help him as his horses had suffered greatly in recent hunting activities with bolas.

The situation was not better with Maria, *although*

I agreed to have lunch with her... even when I know the gastronomic sacrifice it means to me. Finally, thanks to persistent efforts and presents, I could get two horses for some sugar and yerba.

In other huts belonging to Indian landlords, he obtained two more horses. With these four horses, together with those Isidoro has, I already have the necessary ones for the journey; and though none of them is very good, I do not want to insist as I am afraid that the unpredictable Tehuelches may change their minds and, not trusting us, may not want to rent us any horse.

Pleased about the result of the visit to the Tehuelche camp, on January 9 they went back to Pavon Island. He said goodbye to Shehuen-Aiken Indians who, in a mocking way, arranged their meeting at the lake where the Santa Cruz originates. They could not help smiling when promising to give them provisions, where it was not possible to arrive, according to them, because the waters are so brave that many times women cannot collect enough to drink.

They traveled on for two days and they reached Pavon Island on January 11, at midday.



Going up the Santa Cruz river as far as its Origin.

ackground.

Captain Roberto Fitz Roy – 1834. In the expedition that Fitz Roy, aboard the Beagle, began from Plymouth, England, in 1831, he was accompanied by the young naturalist Carlos Darwin. In April 1834, he anchored in Santa Cruz estuary, in Punta Quilla, in order to repair his ship. He then decided to go up the Santa Cruz river on three whaleboats, furnished with provisions for three weeks and a crew of twenty five men, Carlos Darwin among them.

On April 18, they started to navigate, many times dragged by a towrope. On May 4, due to the difficulties they had to go on sailing, they decided to walk. Fitz Roy, Darwin and some other men could see the Cordillera; possibly, they were two or three walking days from the lake when they stopped because of the hardships they were experiencing. On May 5, they started the return trip and, on May 8, they were at the mouth of the river.

G. H. Gardiner and Others – 1867. In October 1867, the great pioneer Commandant Luis Piedra Buena prepared an expedition to the Santa Cruz river in order to evaluate its possibility as a means of communication. He sent four men by land, supplied with horses, food and provisions for a long journey. One of them gave up on the fourth day and the Englishman G.H. Gardiner took over the command of the expedition. He had been part of a mission together with Schmidt (1861) which he left to join Piedra Buena. A quite educated man, he wrote a detailed diary of the journey. Twenty-two days later, the expedition arrived at the lake; he drew a simple map of the region, including also lake Viedma. They stayed fifteen days in the camp and they returned in sixteen days.

Second Lieutenant Valentin Feilberg – 1873. The Second Lieutenant Valentin Feilberg started, on November 16, 1873, the ascent along the Santa Cruz river. He used a whaleboat of 14 feet long (a bit more than 4 m) and he went together with four members of the crew: two Welsh, a Frenchman and a man from the Province of Corrientes. They had provisions for twenty days, a compass and a telescope.

When it was impossible to advance, they continued by pulling the boat themselves. Sometimes, due to the strength of the flow, they had to disembark and carry the whaleboat on their

shoulders. They went beyond the place Fitz Roy reached. At the end of the nineteenth day, exhausted lying on the ground, Feilberg heard the dull and rhythmical sound of the lake waves. It was November 26, 1873. He stayed four days in the camp but the weather conditions prevented



Valentin Feilberg.

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him from navigating it. It took him four days to return.

They agreed that the ascent along the river had to start as soon as possible as they were afraid of the close cold season.

They fixed the vessel sails, built the necessary divisions inside the vessel to keep provisions and prepared the horses that would pull the boat.

The crew consisted of six people, seven with Moreno: as rowers Francisco Gomez, from Corrientes, and Jose Gomez, Brazilian, nicknamed Patricio by Moreno; and the ship boy Abelardo Tiola, these three appointed by the Government; and three important people were also included: the harbor pilot Estrella, second lieutenant Carlos Moyano and the gaucho from Santiago del Estero, Isidoro Bustamante, a skillful hunter, who was in charge of providing food.

> Ready for such an incredible adventure, Moreno was aware of the effort and the slow and grueling trip this enterprise entailed: to go upriver the Santa Cruz, the vessel had to be towed from the bank with a rope along

more than 300 kilometers. It is a fast-flowing plains river, especially in spring and summer, during thawing, and its waters are very cold.

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In some places it runs between 4 to 200m high slopes, higher along its sources, which define its valleys whose width ranges from 500 meters to some kilometers; and at its bottom the river flows at an average speed of 10 km per hour.

Ile knew about the previous attempts of Captain Roberto Fitz Roy, G.H. Gardiner and Second Lieutenant Valentin Feilberg. He was completely aware of the hard fight and the exhaustion of this *crazy enterprise*. However, his strong passion and unstoppable will encouraged him and he was sure that success would crown such an ambitious project.

He also knew that there were very few protected places and, consequently, they would have to sleep in the open air wrapped in *quillangos*. As they carried little food: farina, crackers, and coffee to warm up and to recover energy, and *yerba*, they would be forced to eat from the hunting: rheas, guanacos, armadillos and even pumas...

The circumstances of the expedition, that would force them to eat in order to go on living and fighting, deserved these thoughts:

In my short traveler's life, I have never hunted even the most insignificant animal when it was not necessary for my collections or my food. How nice it is to see them free, fearless of men, when the fight for life does not force us to kill them? We should not make the desert bigger or sadder by killing or driving away its few inhabitants.

oing upriver the Santa Cruz: January 15, 1877. With waves, and the flags high in the mast of the whaleboat and, from the island house, the ceremony of pistols and the "goodbyes" wishing us happiness, we set off... It is said that the love for your country blinds you and if this is so, maybe, I suffer from this phenomenon; I see no obstacles these days; I forget the distress of the Englishman sailor who preceded me and I only think that with energy and strong will I will succeed. I always keep in mind ... the example of so many courageous travelers that did not generally have the essential material elements, but their moral strength makes everything easier and does not know about hindrances to get what they pursue.

On February 15, after sailing for thirty days, the expedition achieved what they were looking for; they reached their goal: they arrived at the Great Lake that gives origin to the Santa Cruz river. The hardships and dangers that they had to overcome during this voyage, the physical and moral sufferings they underwent, were magnificently narrated in his book *"Viaje a la Patagonia Austral"*.

On the first days of January, 15, 16 and 17 ... the difficulties were not many; from the beginning the boat is pulled with the aid of a horse; ... the

towrope is Patricio's job; Francisco, the man from Corrientes, measures the depth with the boathook not to run aground...; Estrella is at the helm so that the vessel is always with the bows to the current. Moyano is in charge of the river waves with the help of a theodolite comparing them to Fitz Roy's map. Abelardo looks after the horses; Isidoro hunts something for dinner. I continue on foot by land and by river leading the towrope and at the same time gathering objects for my collections...

The navigation, increasingly more energetic, carried them away from Pavon Island; the river seemed to be sown with islands and some swamps made the advance difficult. On the banks, the sandy land was covered with great amounts of bushes.

At sunset, they tied the vessels in a little bay and they put up the tents behind the big bushes, which protected them from the hard winds. Isidoro had hunted a small guanaco for dinner, which was barbecued and eaten happily.



The second day, 16, they went on sailing since very early until midday, when they rested because of the terrible hot weather.

Hundreds of meters ahead, they found the first serious obstacle: the river waters, downstream, went down vigorously; the loose soil did not allow the use of horses. Men had to do horses' work: ... two sailors and I lift the boat. We did it, not paying attention either to the thorns that tore our clothes and made us bleed or to the cactuses that cruelly thrust our feet...

After working continuously for six hours, at midday they rested until three in the afternoon: their meal consisted of mate, coffee and a little of farina and a barbecued piche [type of armadillo].

> At sundown, they stopped on a little beach, close to a big incense shrub, where they found some cut trunks revealing that this place had been chosen by Fitz Roy.

> > The third day, January 17, was very hard, ... the towing becomes very difficult; the speed of the current has increased and in some parts real rapids are formed. We are forced to help the horse, by pulling the rope all together. At the slightest negligence the vessel can sink and our expedition would finish. ... In the afternoon our journey is even more complicated. We have only traveled for three days and our clothes reveal,

at least, the hard work of months; thorns have turned them into rags, leaving us almost naked; the shoes are quickly worn out by the stones and sharp thorns of cactuses get through the holes. The towrope

At midday, after eating some rheas barbecued on stones, they rested for a couple of hours.

causes blisters on our hands and whipping bushes scratch our legs and arms.

In the afternoon, even more difficulties arose; on a bushy slope side they saw a puma pursued by some dogs. On their way, between shrubs, they found remains of guanacos with some flesh.

Late at night they camped, in spite of Patricio's complaint about the near beasts. The fear kept him awake and he was on guard together with the dogs.

hree Very Hard Days: January 18, 19 and 20. The place where they had camped on the night of the 17 was in front of a rather high and steep bank. Before beginning to sail the following day, Moreno decided to explore the region.

He went towards the north on horse and climbed the highest plateau; he counted five steps that went up gradually from the river, until reaching a maximum height of 50 m. Towards the inner part, higher plateaus could be easily seen. Moreno said: Nothing is made out in the horizon; the longed-for Cordillera cannot be seen; the wind finds no obstacles and blows everything away with the characteristic violence of these regions, the spectacle is very sad...

He hurried on down the plateau slope as far as the campsite to inform his partners what he had seen and to take precautions to go on the trip that undoubtedly would be very difficult.

On his way, from the high land, he saw a herd of guanacos going along the side of a plateau through paths that they had been following for years. He was so attracted by the scenery that, dominating his impatience, he got off the horse and sat down on some rocks to gaze at it. This was very interesting and Moreno could not help making a poetic reference to what he had so pleasantly observed:

I get off the horse and sit down to watch the spectacle that is about to start and that Darwin's travel made me know.

The guanacos, considering me harmless, get nearer; they follow the leader. Curiosity makes them forget about their fear, and only some frightened mothers

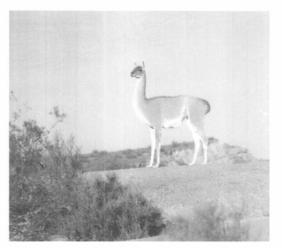
suckling their recently born offspring in the gorge stay away and on the alert, ready to escape at any danger. The unknown man whistles: Rigoletto and Fille de Mme Angot produce a great feeling on them and later they seem to prefer Aida; they pay attention, stretch their necks and look around curiously and they fix their eyes into whom makes them hear that whinny or cry. They move some steps away, they stop: the male jumps, everyone jumps, runs, comes back quickly; they stop on the alert and prancing around they approach the person giving that show. They become fearless; they neigh and jump at the same time... until a shot to the air calms them down, but they are not scared.

They pay attention again; perhaps they understand

with the behavior of the horse after the shot and thunder that there is danger. They seem to deliberate, they approach their soft nozzles to the ground, inhale; their instinct makes them understand that that expression of the human industry is hostile and they decide to leave.

The parade begins: first the females with their young, then the females with no offspring. The male is the last one; it walks slowly, jumps from time to time, neighs, it looks at me in the distance and when it seems to understand that I am not chasing it, it continues ruminating in the slopes. Three or four more shots scare it again and a long-lasting cloud of dust shows me that they are running away very fast. However, I have not thought of harming them but just observing them.

At midday they began to move: the way by land was very bad; loose



stones hurt the horses badly; the river continued rising and its stream was quicker and quicker. At every moment they had to rest. Moreno said: We get more tired in this short way than in everything done so far.

Luckily, when they camped, they fished some big trouts and so they could recover energy: ...trout meat is good and is delicious to vary our routine dinner.

Day 19 was even worse: We have worked very hard today, it has been a cruel day, and we have walked little and with great difficulties. Both banks are steep... More than once we have to leave the towrope as those who carry it are in real danger of being swept along by the river. Nothing resists the current of a bend; the rope is cut every time that three men and a horse pull it.

At five in the afternoon, exhausted, they decided to camp. A guanaco and some trouts fried in rhea oil were an abundant dinner that relieved the empty stomachs.

At dawn on the nineteenth, Moreno said: What a bad day today will be! From early morning we are in a hurry. I spent a bad night; my people are exhausted because of yesterday's work...

They continued the voyage using the towrope, crossing on foot muddy lands, between branches scratching their faces and cactuses hurting their feet. Blood seems to come out from our faces; the heat of the morning and our excitement keep us busy. We work like fans and we do not pay attention to obstacles...

After a week of their departure, Moreno said: We have our hands burnt by the ropes and the feet and legs ulcerated by the thorns; and I am beginning to believe that, despite our strong will, our enterprise will not be crowned with success... The moral suffering is growing and this worries me. It is a heavy burden for me to carry: there are moments in which I, myself, consider this project crazy, but I come to my senses again and I do not surrender... It makes me sad to see my poor sailors, tough but faithful, not even mumbling although there is a good reason to do so. I reward them when they wake up with my own portion of baked bread. That is to say, I split it in two halves and they accept it. What a scarce reward! In addition, he added further: I should not expose anyone; no one but me is responsible for this expedition and, therefore, I must face the danger.

Rapids became increasingly more frequent and crossing them required great efforts; in some cases, they had to spend hours to advance a hundred meters.

These adventures are well described in the following lines:

Three consecutive and energetic attacks help us and we decide to begin the tow roping task to the south... All of us get into the water and, not towing but rather dragging the boat, sometimes lying, sometimes getting entangled with the submerged plants, we advance through that intricate archipelago of islands, stones and loose bushes until we can reach carefully the river stream channel. Making efforts not to be swept by the current, we get to the northern bank where Isidoro is waiting for us with the horses. The place where we grounded is only 100m from the whirlpool and we needed five hours of uninterrupted work to cover that distance.

They followed the ascent, divided in this way: Abelardo Tiola and Moreno, by land, and also Isidoro who drove the horses; the rest remained on the boat.

Moreno said that, at a certain moment, he felt so tired that he fell down, on a dune heated by the sun, completely wet and weary, and got asleep. Perhaps I could have stayed there forever if Abelardo had not woken me up three hours later. He had been looking for me on his horse, afraid that I, on foot and without weapons, could have been attacked by a puma.

Exhausted, before the evening, they camped on a little beach where there were many bushes, useful for protection. Forced by the bad weather and the deep exhaustion, they took off the following day, January 20.

The heavy storm lasted two days more and on January 24, when the cold South wind *"the pampero"* was softer, they went on at ten in the morning and they walked relentlessly until ten at night.

They went along places where the river got narrower, but there were few rapids and the voyage was not difficult. Besides, as there were fewer bushes on the bank, the horse helped to go up the river.

They stayed there for four days, waiting for Isidoro's physical recovery. Moreno took advantage of this situation to make some excursions that allowed him to discover fertile lands watered by beautiful springs and two little permanent lagoons, where thousands of birds were fed.

However, the stay was not pleasant; in general the days were cold, dark and there were sporadic cold drizzles. The wind blows with fury producing every now and then very sad whistles in the silent valley. They burnt thick bushes to keep away the pumas that disturbed the horses. And, at the same time, they could protect themselves from the intense cold temperature that at night decreased up to -0° C.

On February 1, after a cruel freezing and rainy night, they continued at dawn. As the stones agitated the water intensively, they took the precaution of measuring the river depth in the middle of its bed. Moreno then decided that the people had to go on by boat while he moved on foot



to shorten the distance and to know, though slightly, the plains. They spent an enjoyable night after having eaten farina stewed with rhea grease and excellent guanaco steaks.

At dawn, on February 3, although the current was not so fast, they were greatly delayed because of the flooding. The water had covered the plants over which the boat run aground. To get rid of the branches, they had to

get into the water, a task that was very cruel.

Further on, heavy storms prevented them from going on: the boat rocked and, despite its good mooring ropes, it ran the risk of being swept away.

There is no possibility of moving and, to carry on, we have to wait until everything becomes quiet. Mosquitoes are a terrible nuisance this afternoon; the sun has appeared again, the wind is calm and the hot weather encourages these little beasts that in great amounts bite us, causing us fever.

The following morning, with a very nice cup of strong coffee, they tried to overcome the whirlpool. They made several attempts, ...but the powerful current pulls the rope out from our hands and turns the boat around; it goes downstream with the risk of foundering against the rocks. Finally, they decided to change the location and chose the southern bank; and luckily they succeeded.

> Upon finishing this tiring task, they had lunch and, after a short break, they continued towing the boat with the rope. The way, from this point on, becomes easier; having left behind to the north the abrupt basaltic plateau, the open valley lies down there. In the evening they camped

on the northern bank, on a fertile land.

On the fifth, the navigation was slower because of stones and a fastflowing river that ran through a very narrow valley. Consequently, Moreno decided to leave the boat to continue the exploration on horse.

He felt the proximity of the lake; he could feel the smell of water. He got on his horse, as exhausted as he was, he went up dunes, fell down and stood up and finally, from a height, he had an incredible joy: he saw the Andes!

The Andes are in the depths of the horizon! Its daring blue mountains are outstanding, its peaks are crowned by white snow, as no cloud covers them. I found all the distresses worthwhile. I feel sorry for not having my crew beside me to admire together the great protection of our homeland.

At midnight, after many incidents, he went back and he met his partners, who had stopped sailing due to the incipient darkness.

The following day was sad for Moreno: a strong Andes wind and his pains forced him to stay in bed. Here are some of his thoughts:

The illness caused by physical and psychological troubles, moreover in the last working days, has beaten me today, and the rheumatic pain, which I have been feeling since the day I fell on the water and slept under the sun, has attacked my back and head in such a way that it is impossible for me to move. The pains are momentarily relieved with hot baizes and a high dose of guinine sulphate calms the fever; this allows me to

walk through the hill heights in the afternoon and to see again the Cordillera, a view that I hope could comfort me.

A good rest and a delicious guanaco steak hunted by Moyano and cooked by Estrella, who had become an excellent cook, comforted him and he could go on.

Luckily, on February 7, the day when he was already recovered, he started the journey without great difficulties. The plains are covered with plants of white heath that give a beautiful aspect; the sand covering the small gravel surface allows us to gallop. We can breathe freely here. Everybody pulls the boat

happily and the way is comfortable (relatively)... The following day, February 8, they walked very little as Moreno again suffered from rheumatic pains.

From February 9 onwards, the trip required great efforts. Yesterday night the pumas disturbed the horses and this did not allow us to sleep... In the morning, the way is very bad and the weather is extremely hot; the flow is terrible and going on becomes very difficult. Estrella and Patricio guide the boat; Gomez and I pull the rope submerged in the water. Our bodies are soaked by the cold waters from the torrent and our heads heated by a temperature of 30°C in the shade. It is one of the cruelest days that we have spent; a soft vapor emerges from our bodies and I feel beats in my brain that make me afraid of a brain congestion.

Late in the afternoon, after many pools, they arrived at the place pointed out by Fitz Roy as Indian Promenade; they found horse bones and a fragment of a knife that proved the English marine's veracity. The Cordillera peaks were more defined and they got oriented taking as observation point the Castle Hill of Fitz Roy.

On February 10, they reached the spot where Fitz Roy cancelled the exploration but they could not find traces because the water flow hid everything.



Cordillera de los Andes. Photograph taken by Moreno (1890).

We had to pull the boat on foot during almost all day, and from inside the water due to the bushes and the flooding, but we feel like doing so thinking about the famous Lake Viedma, where we are told the Santa Cruz river originates.

Moreno would verify that this was not so since he reached the river source which he named Lake Argentino, and days later he arrived at Lake Viedma.

They were so exhausted that night that they did not even think of eating, though on board they only had some food tins.



However, they preferred to keep them for the future, in case they found lands where it was impossible to hunt. Isidoro, who drove the horses from the bank, shouted that he had hunted a rhea but they could not get near despite all the attempts.

They rested on the boat or among the bushes, ... shrunk like prey birds... and

they set off again the following morning.

They had left behind the tracks of Fitz Roy's travel and they followed the tracks of the whaleboat of Feilberg, ... who happier than me, did not have to face this great flooding.

On the eleventh, they had to overcome a great bending of the Santa Cruz river, an immense S, surrounded by steep cliffs and swamps, ...where my crew has proved to have a fierce resistance to elude the obstacles ...we are on the mysterious plains, near the lake that must be hidden by the great smoke from the Andean forest fires. It took us 10 consecutive working hours to fulfill this task and we only advanced 400m.

They spent the night on the boat, ...completely exhausted, soaked and without clothes to change as the water got into the boat many times while working that day and miraculously it has not sunk; we only regret the loss of



S bending of the Santa Cruz river. Present photograph.

part of our scarce but valuable provisions.

The twelfth was not very active; it took them some hours to finish taking the bend of the river. They felt very tired. We did not eat meat yesterday or the day before yesterday; only a few crackers and two tins of sardine with farina fried in rhea oil; it is necessary to search for better food... Isidoro has left for guanacos, but they have disappeared, what worries us; ...the horses are in a terrible state.

At midday, they decided to download the boat to make some repairs, and also to dry the provisions and to take advantage of those in good conditions. This activity showed them that at least a third of the food had been lost during the last few days.

The following day, February 13, had a promissory start. Although at first there were rapids, they soon disappeared and consequently the speed of the current decreased. So they could row a long distance (about 10 km) with just a few problems.

As the crew was very tired due to the tough work of the previous days, Moreno thought it wise not to continue since he believed that with some effort it would be possible to reach the lake the following day. He supposed it was not too far.

Then they camped on a little beach where there was enough grass for the horses. Besides, he decided to use the many available logs to repair the tents because the weather was threatening and the aspect of the sky announced a storm.

Once the camping was organized and the members of the expedition could have a well-deserved rest, he got on the horse in search of the lake that, according to the aspect of the mountains, he felt that it could not be far. He started describing the places he went through where there were many sand banks, among which little bare beaches covered by gravel or full of yellow grass could be seen. The presence of cattle eating from the grass increases, while many rheas attack with pleasure and mercilessly the purple berries of the calafate [evergreen shrub]... flocks of red-

breasted birds fly screeching because I come near them... while rheas spread their small wings, describing curves and circles in their fast steps sinking their legs in the sand...

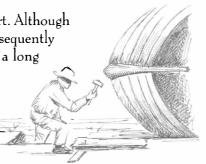
The air became increasingly cooler, ... there is smell of water and a close pleasant noise reveals waves hitting against rocks... Enthusiastically, Moreno spurred the horse and, out of breath, went up and down the chain of dunes until, exhausted, fell in a hole or funnel formed by a whirlwind on quicksand. He climbed the dune and found himself in front of the great lake.

It is an incredible spectacle and I understand it is pointless to mention how hard we have worked to view it; I forget everything in front of it.

The greenish blue waters, crested by the current, form waves until reaching the beach. At the distance a crystalline iceberg is seen swaying its white castle in the deep waters of the center that



View of Lake Argentino. Present Photograph.



mine its base; meanwhile the bright sun melts the new snow on the high peak of Castle Hill, an immense geologic fortress destroyed by weather and time. From a dark shower sifted over the Pacific canals, white and blue peaks outstand, and other pieces of the nation colors are seen in the horizon.

Moreno did not spend much time there because he wanted to tell the good news to his partners, but before leaving he fulfills his stern purpose: ... I get into the water on horse soaking myself as much as possible; a simple satisfaction of a long-lasting wish.

On his return, he found on a dune a row that kept in its end the remains of an Argentine flag which undoubtedly the Second Lieutenant Valentin Feilberg had left fluttering, and a bottle with a document showing the happy arrival of this expedition held in November, 1873.

> In the afternoon, he arrived at the camp where the news arose great enthusiasm. Isidoro had hunted a rhea that was barbecued and happily eaten.

February 14, last day of navigation, was a day full of emotions but also of hard work. The flooded areas and the rapids originated by the cliff landslide made it difficult to go on. It was not until 4 o'clock in the afternoon when they saw the lake, after fighting for more than two hours to manage to enter. We have had more blows today than in all the travel, but it is not possible to give in when we are about to reach the end.

Luckily, the boat, with Moreno, Estrella, Francisco and Patricio, was grounded at the bottom of the sand bank where Feilberg put up the flag. Moyano, Isidoro and Abelardo also arrived there; the first two brought the hunted animals on the horses which happily went down to drink water from the lake. This is a moment I will never forget. The weather is very pleasant in the place where we are, while at the distance, showers and fires destroy the still mysterious region. We are all impressed; everything makes us feel an extraordinary sensation of well-being and we enjoy the view...

Among the provisions, there were two bottles of cognac. Moreno opened one to serve some to each man. We all, without asking, make a toast for the far-away nation, whose memory has encouraged us to arrive this far...

The small group that, with their heads uncovered, surrounds the flag on the arid dune, promises to comply with their duties and to advance while the scarce resources allow them.

They finished the day with a feast: piche, rhea, guanaco, fried farina and, *dulce de leche* [Argentine milk jam] as dessert, with a big cup of coffee and two crackers for each man, in honor to the great event.

They spent a pleasant night, under the calafate shrubs that had

sheltered Feilberg and gave them warm protection against the wind which began to blow and agitate the lake. The weariness of the day does not allow us to dream... we spend a nice night sleeping on the soft sand, lulled by the near waves and by the noise of the gravel that comes and goes with the wave movements.

n Lake Argentino: February 15 to 22. The survey studies of the big lake where the Santa Cruz river originates started on February 15.

What a wonderful awakening!

I can still hear in my ears the pleasant sounds that the Spirit of the Waters makes the lake waves play while rolling over the stones at dawn today. Night winds have calmed down; the lake is quiet. The lights of the great fire appear in the southern mountains.

Internal sea, child of the nation cover that protects the Cordillera in the immense solitude, the nature that created you did not give you a name; the human will from now on will call you

Lake Argentino. I wish my baptism pleased you...!

After they got up, fixed the only tent where they could place their provisions, and made the necessary repairs on the boat, they decided to start navigating the lake at midday.

Nevertheless, the weather was against them: the wind became increasingly strong and the waves, more furious. They postponed the enterprise for the following day and they just went along the lake banks on foot and on horse.

At dawn on the sixteenth, it was

quiet; ...the lake, beautifully calm, invites us to get into it while its agitating Spirit sleeps ...we push the boat into the water with the white sail and the national flag hoisted at the top.

They did not give in even when the wind was strong and the boat was extremely heavy because of bad marine conditions and did not move easily when crossing the waves. Difficulties increased soon and danger was awaiting them; the vessel almost filled with water when it run aground on a bench and the crew got completely wet.



Lake Argentino. Present photograph.

So at midday, they disembarked and dried their clothes. I have made one of my great wishes come true; that is to say, navigating the lake and stepping on land which has never been visited before by human beings... It is a new revealed mystery... What a great satisfaction I feel! I have made it.

On the third day, February 17, as the weather did not help, they thought it convenient not to navigate and to take advantage of the sun to recover, at least, half of their provisions as the other half was considered lost.

On the eighteenth, a soft wind allowed sailing and they went deep into the lake towards its back part. They jumped from wave to wave towards the icebergs, observing the huge frozen masses that were swaying on the waters. The show awakened Moreno's poetic vein, and he described it in many pages of *Viaje a la Patagonia Austral*:

> At the distance, we see a huge white mass leaning and then it sinks noisily and produces a great wave that comes rolling until it hits our vessel. We see white cones going up, spreading and swaying, where it has disappeared... They are the remains of the curved and detached gothic monument... How cruel its fate has been! The old snow which has formed it for centuries has advanced slowly to the lake, crowned by little buds and rocks that have separated, when moving slowly but majestically, from the mountainside. ...However, the lake waters, children of

previous ice, hit with their waves the frozen sides, they destroy, they crack its base, tear off big pieces and give birth to the great iceberg, thus the noisy wave triumphs and in an instant the work of the icy cold wind of centuries disappears with the first sun rays of January. The small floating cones are the fragments of the mountain that is a piece of the snow-capped mountain. ... Thus the children live on their parents; this is what nature demands.

In the afternoon, the winds became violent and the currents threw them to a small beach. The arrival to these open beaches is almost equivalent to wreckage. We need to make serious efforts to save the boat ... We do not have anything dry and the cool wind freezes us and sweeps our small camp away.

The bad weather continued. It was impossible to navigate on the nineteenth. Moreno set off for a walk and made an interesting discovery: vertical cliffs were covered by signs made by the hands of men. He further found something even more curious: from a small cave, whose walls had painted figures, he managed to extract a well-kept human body, painted in red. According to the hair shape, cut out almost at the root, and to the red paint that covered it, he thought that this interesting mommy belonged to a man from Tierra del Fuego. He did not consider that it belonged to those men who had lived on the great island but to those living on the continent, when Pedro Sarmiento de Gamboa made his expeditions to the Strait of Magellan in 1580.

On the twentieth, the food was very scarce and, to make matters worse, a wave deprived them from the jerked beef left on the boat to get dry. Luckily, between the plants near the hills, they had found a nice rhea egg...that gives us, besides, a new delicious dish to increase our meager lunch.

The Patagonic way to prepare a rhea egg allows cating it all so the happy discoverer can make use of it completely. A one-inch-diameter little hole is made at one end and, after taking out a part of the white, it is placed between the ashes, taking care of revolving its content and keeping it vertically; in this way, little by little, it is grilled without cracking the shell. Cooked this way they are excellent in these isolated places... If the shell has been looked after properly, it can serve later as teacups or coffee cups and even mate, but it is necessary to have good fingers to grasp it. The content of this egg is divided among the five people of the crew; it is a side order for the farina with beans prepared by Patricio, who has been appointed as the expedition cook.

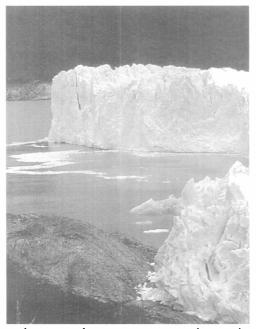
Weather conditions on February 21 and 22 were not favorable. Moreno

considered that it was necessary to leave as soon as possible, as they were wasting valuable time. However, as in the afternoon, at sunset, the sky announced that the following day would be even worse, he then decided to try to go into the uneasy lake waters.

Since very early, smokes were distinguished on the northeastern mountains which undoubtedly meant the arrival of Tchuelche Indians and Maria's presence, who would surely claim for the provisions promised by Moreno when he was in their village of Shehuen-Aiken.

When the storm began, they were in the middle of the lake in front of an immense iceberg. Darkness was complete but they felt it was near because of the pieces that were separated. *If we crashed a fragment, we would certainly sink*.

At 2 o'clock in the morning, they thought they



Icebergs, in Lake Argentino. Present photograph.

had seen the land and they managed to go towards the coast; a big wave pushed the boat to the beach. Miraculously, the boat touched the shore 500 m from the camp where Isidoro, Estrella and Abelardo had stayed. The Tehuelche Indians were with them.

Our presence frightens the sleeping people; the surprise of the Indians that have arrived is expressed with shouts; maybe they believe we are ghosts. Who can think that we have crossed the lake that awful night?

Each one carries his wet blankets and lies down on the sand, completely exhausted, but happy after having navigated in the lake. We are still awake at sunrise; the concern for the fact that we almost lost the boat does not allow us to sleep.

xploration towards Lakes San Martin and Viedma. On February 23, the wind blew hard and there were continuous showers. They began downloading the boat, removing the gravel deposited by the waves during the storm, and they pulled it to a safer port. Luckily for Moreno, the mommy had not been greatly damaged unlike a painted wood figures almost completely erased. The mommy was buried quickly so that the Indians could not see it because they were very afraid of it.

The Indians began to pursue Moreno mercilessly despite the sad situation he was in; they did not forget his promises when visiting them in Shehuen-Aiken. Tired of their requirements and to satisfy my promises made in an enthusiastic moment, I have to give them most of the provisions we have.

As they were also very uneasy, he shared some crackers out among them and he managed to calm them down when, from a little organ that he gave them, some melodies came out. The music made them have singular feelings; they showed happiness when listening to exciting French quadrilles. Listening to La Fille of Mme Angot in front of the icebergs! With a little of liquor that I have brought for the collections, the party starts.

The following day, very early, he said goodbye to the Indians as they did not have meat to eat; they had the order to light fire on the hills to show the way to reach the campsite.

Moreno left the boat in charge of Francisco, with provisions for fifteen days and he began the journey to the north together with Moyano, Estrella and Isidoro in charge of the horses. The travel during that day, February 24, was not very difficult but the hunger and thirst turned it distressing. At night the cold weather was very intense.

At midday on February 25, they saw the huts situated at about 50 km northwards from the Santa Cruz river. Maria, who had arrived earlier, had already announced Moreno's visit. Its main purpose was to get horses and *quillangos* to protect his men from the cold weather.

After long speeches and presents (sweets, colorful blankets and alcohol diluted in water) he got five *quillangos*, two

horses and one pony. He was pleased and left the Indians happy with the false liquor and the music of the organ that they listened to enthusiastically and it calmed them down.

Chesko, known as Juan Caballero, joined the group that went on traveling on February 26. He worked as guide to lead them to the northern lakes. In the afternoon, they reached the fertile valley of Shehuen-Aiken, a grassing land that allowed them to rest and to feed the horses. They left the following day and went *along the edge of the great lagoon called Tar or "Dirty", which stretches out with turbid waters as far as the bottom of an eruptive hill of curious shape, called Kochait (bird)*.

On February 27 in the afternoon, they reached a spot that seemed separated from the rest of the Patagonic territory. Everything is different here and it is pointless to search for a plain and for dunes that precede Lake Argentino. This is an Alps landscape, but sad, unknown, without a name; only the Indians visit it. Civilization does not know it yet and it is necessary to give it a name... Let's call it Lake San Martin, as its water washes the solid base of the Andes,

the only honorable pedestal that can support the heroic figure of the great warrior.

They camped and admired the splendid full moon that appeared behind the Pana Mount that reflected on the lake. After a brief walk through the surroundings, on February 28 in the afternoon, they settled their camp in the mouth of a river today called Torre river that descends from Pana Mount, a volcanic hill situated to the east of Lake San Martin. There he collected samples of vegetal coal and mollusks from the riverbed.

The lack of provisions and horses prevented them from exploring the whereabouts, since they still had to visit Lake Viedma. While his partners left in search of food, Moreno saw an iceberg standstill and he cut some pieces, which he chewed, instead of food.

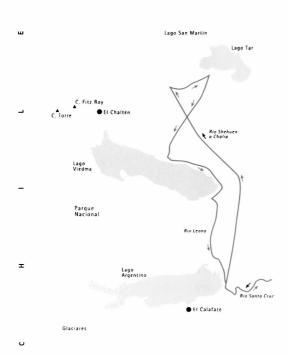


Lake Tar. Present Photograph.



"La Tercera" Ranch, present photograph. Nearby, Moreno camped the night of February 27, 1877.





Explorations to Lakes San Martin and Viedma.

On March 1 in the morning, they set off towards the East, going through a big fire originated in some plants burnt by Chesko.

After traveling ten miles, they stopped at the shore of the Tar lagoon where they only had *calafate* fruits for lunch. They turned towards the South having exhausted horses and empty stomachs. In two days, Moreno had only eaten pieces of ice of an iceberg and Moyano felt bad because of the lack of food. They spent a very sad night.

After eight miles to the direction south-southwest, on March 2, on a stormy day and from a quite high hill, they saw the vast Lake Viedma, situated between Lakes San Martin and Argentino.

After observing it, Moreno concluded that it was bigger than Lake Argentino. At the background, they distinguished a little chain of hills and, when there was a clearing among the foggy vapors, the black cone of the volcano and a light column of smoke coming up its crater was made out. It was the *Chalten* of the

Tehuelches, a steaming mountain spewing out smoke and ashes, and according to them, a dwelling for numerous powerful spirits.

This active volcano has not been mentioned by travelers or navigators and since the name "Chaltén", as it is called by the Indians, also applies to other mountains, I will allow myself to call it volcano Fitz Roy, in a gesture of gratitude on behalf of the Argentine people to this wise and energetic British Admiral for the contributions to the geographic science...

> Moreno, as it is well-known, mistook Fitz Roy Mount for a volcano. This happened because he did not have the opportunity of observing it in bright days but in stormy ones, in which everything was covered by thick and dark clouds that seemed to originate at the very peak of the mountain. These clouds looked like smoke columns moving from its top.

On March 3, when passing by some plants, he was attacked by a hungry female lion that endangered his life. The river with its origin in Lake Viedma, where the attack took place, received the name of Leona river in memory of this event, narrated by Moreno as follows:

Walking alone towards the river to leave a bottle at its banks as proof of my visit, I pass by some plants and I am attacked by a female lion... I only

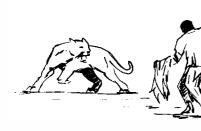


Lake San Martin. Present photograph.

carry with me my prismatic compass in its case and pincers to take insects, weak weapons to repel a beast. However, my spirit is very strong. Although I am thrown to the floor by the violent strike I have received, when the lion puts its nails on my back and face, trying to bite my neck, I manage to stand up, rolling the poncho and spinning the compass through the air as if it were bolas in order to impose myself to the animal. It tries many times to hurt me, but it only rips the poncho and scratches my chest and legs, tearing my clothes... Without being



Mount Fitz Roy. Present photograph.



the lion hides near some bushes. They traveled on to the East through a

seriously hurt, I

reach the camp site:

long creek until reaching the place where Isidoro had camped on a hill slope, near some springs, where the horses recovered from the journcy. They spent the night — there.

Very early the following day, on March 4, they began towards Lake Argentino. After galloping for some time, they distinguished the waters of the lake, combined with white icebergs. They reached the campsite soon and it was very quiet; the two sailors and Abelardo had cleaned the boat and organized the remaining scarce provisions; Patricio, who was so fearful, trembled frightened of looking at blood stains

in Moreno's clothes and the wounds on his face caused by the lion.

They stayed six days in the campsite, forced by the terrible weather, the continuous rains and a heavy snowstorm in the Cordillera.

At dawn on March 10, the day was calm; so they pushed the boat into the water and went to the lake headland, Feilberg Cape, where they left a standing post, a message in a hottle and a leather bag full of *salt for the Indians*. They began the descent quickly, looking for a quiet beach where to anchor the boat and make the horses cross. They managed to do so without problems.



Leona river. Present photograph.

In this place, they camped on some dunes rising at the shore of the lake. As the horses were not tired, they began traveling to the western region, an occasion in which Moreno gave its name to Mount Felix Frias which is the dominating mountain of the region ... in honor to my friend, who earnestly defended the Argentine cause in the boundary affair with Chile.



Lake Viedma. Present photograph.

They stayed there, always active, until midday on March 16. After loading all the collected objects, ...we leave sadly Lakes Argentino, Viedma and San Martin and the hard and wild Cordillera. The west wind increases the flow of the Santa Cruz river and, as soon as the narrow vessel reaches the middle of the course, we begin going down the river as fast as slow our ascending has been.

This journey which had taken them thirty days to go up the river lasted only three days and twenty-three hours to sail it down.

The arrival at Pavon Island, very exciting, took place on March 19.

We pass by "Rincon de los Machos" [Men's Spot] and we can see the roof of the island house and its chimney smoking... Later the white boat appears in the wide watercourse in front of the island. We have hoisted the sails taking advantage of the Andes wind... The vessel sways and the crew greets happily the cultivated banks. The rifle shot, which announces our presence, has alarmed its inhabitants. The Tehuelches must be greatly surprised at the curious show of the arrival of a crewed boat descending incredibly fast from the Cordillera... Suddenly the boat turns round the little island and appears gallantly, sailing in front of the huts. A wild clamor answers back our happy greetings. The men riding their horses bareback and at high speed and shouting try to shorten the distances that still separate us from their primitive dwellings. Undoubtedly, for a moment they believed that the fast boat was an Andean ghost...

They did not find any news on the island. The Indians that had camped in front of it were those of the Cochingan and of cacique Gumerio. These came from Nahuel Huapi nearby areas to know the fields of Santa Cruz.

The Return

n Horse, from Pavon Island to Punta Arenas. As Moreno expected to receive news from Buenos Aires, according to Commandant Piedra Buena's commitment, provided that he went back to the island, and this did not occur, he then decided to go by land to Punta Arenas and to take there the Strait steamer.

Moyano, the two sailors and Abelardo Tiola stayed on Pavon Island.

Moreno began riding his horse to the South, together with Isidoro Bustamante and Francisco Estrella. They left on April 6, 1877, from the island and traveled the distance of about 400 km to Punta Arenas in seven days. They arrived exhausted because the provisions were very scarce and the horses were in such bad conditions that they could not be forced.

y Steamer, from Punta Arenas to Buenos Aires. After traveling some days by the picturesque places nearby Punta Arenas, I voyage to Montevideo on the splendid Galicia steamer and, after a pleasant navigation, I disembark in this city of Buenos Aires on May 8, 1877, happy about the travel that has given me the opportunity of appreciating the importance that means for us of the fertile lands near the lakes...

Moreno arrived in Buenos Aires on May 8, 1877, almost seven months after his departure from Buenos Aires port on October 20, 1876.

The expeditions during this period comprised many thousands of kilometers. Roughly, 2700 by sea, 1120 of land explorations and 600 by the Santa Cruz river, going up and down by boat; the return, from Pavon Island to Punta Arenas, 500 km on horse.

iajc a la Patagonia Austral" [Expedition to the Southern Patagonia]. After arriving in this city recovered from his physical distress, he wrote his "travel diary" in a volume of 480 pages, entitled *Viaje a la Patagonia Austral*, published in 1879.

In the session of the National Senate held on September 18, 1879, when learning about the contents of this book, Senator Aristobulo del Valle, in a magnificent and enthusiastic speech, pointed out the value of this work, and the importance of disseminating it so that Argentine people could appreciate the extraordinary richness and beauties of our southern region. It was then decided to "authorize the Executive to make a subscription of 500 issues of the book called 'Viaje a la Patagonia Austral', written by Francisco Pascasio Moreno, for its distribution among domestic and foreign libraries and geographic institutions as specified in annex hereto".

We think it relevant to transcribe, though partially some paragraphs of the preface of the book written by Moreno on May 31, 1879.

The illness acquired during this expedition, whose "diary" is this book, which has affected me since my return, has prevented me from publishing my



Lake San Martin and mounts Lavalle, aecording to Moreno's draft. Drawing by A. Paris.

observations; today that I am able to do so, I present these pages as the first part of the work.

The second, which should contain the scientific results as well as the description of the collections, will be born as soon as possible. In a volume similar to this one, the "Description of Chubut Antiques" will be printed, with seven lithographs and engravings; the "Skulls of funerary cairn of Chubut"...

This diary that contains my travel impressions is not pretentious. So do not expect to find brilliant descriptions of the great landscapes that develop in the places I have visited, as I am honest to confess

that such a task is beyond my forces and I shall not try to do so.

The painting of nature, sometimes horribly arid and sometimes beautifully rich like a tropical memory, but always majestic, not only in its inhabitants but also in its dry plateaus, in its immense volcanic layers, in its high snowy mountains, in its volcanoes, in its lakes, in its rivers, in its torrents, in its forest, to be honest, requires Humboldt or Darwin's fountain pen. As a simple admirer of our lands, I only hope that, with this narration, my compatriots can have an idea of what that big portion of land has and means,

always underestimated by those who just observe it from the libraries.



Front cover of the Second Edition (1879).

forgotten.

Our issue with Chile... increases our interest for these territories through which I traveled in my last expedition. We have been discussing for a long time about the Austral Lands without knowing them; we spoke about boundaries in the Cordillera and still we do not know its direction or where it finishes and whether it can be used as natural boundary or not in the regions close to the Strait of Magellan. During these last years, the particular interest has spread news full of contradictions; some speak about the fertility and richness of those uninhabitable parameters while others say that these lands are painted with such somber colors that any idea of using them should be

It is necessary, then, to know for sure which elements the Patagonia can contribute with to the prosperity of the Country and this can only be achieved

by knowing its geography and its natural products. Its geologic and weather conditions, its geography, products and advantages that can offer for its colonization should be studied; everything by means of serious and detailed research.

Until this is carried out, I contribute to the common work with this account since, undoubtedly, reading about travels increases the number of travelers, and I wish that it would invite some of my compatriots to visit the regions I describe. Do not let that the fatigue of the travel discourage you since it can offer you indescribable emotions aroused by the show of the unknown and the strength to make it. I sincerely hope that the national colors I left in isolation in the most remote places I reached during my expedition, will be taken further by other Argentine for the sake of our Country and science.

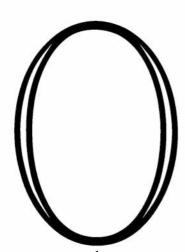
Francisco P. Moreno

Buenos Aires, 31/5/1879

CHAPTER 5 ECOND EXPEDITION TO LAKE NAHUEL HUAPI



FOURTH EXPLORATION SEA VOYAGE AS FAR AS VIEDMA JOURNEY FROM VIEDMA TO LAKE NAHUEL HUAPI HOSTAGE OF THE INDIANS SHAIHUEQUE'S PRISONER ESCAPE ON A RAFT AND ON FOOT RETURN TRIP TO BUENOS AIRES REPERCUSSION IN THE PRESS



bjective. As chief of an expedition to the regions of the South, Moreno was asked to explore the southern territories washed by the Atlantic.

Duration of the Expedition: About 5 months: from October, 1879 to March 11, 1880.

Departure. From Buenos Aires by steamer, on October 5, 1879.

Arrival. In Buenos Aires, on March 11, 1880.

Itinerary

By sea. On Steamer Vigilante. Buenos Aires – Viedma.

Along the Rio Negro. On Steamer *Vigilante* as far as Choele-Choel (about 456 km).

From this point, return to Viedma, where he arrived on November 3, 1879.

By land: On horseback from Viedma, November 11, 1879, towards the Cordillera: Valcheta, Maquinchao, Tcka, the pampas where Esquel stands today, Cholila Valley, Lalæ Nahuel Huapi.

Total of kilometers: 1400

Return: Escape on raft along the Limay river as far as its confluence with the Neuquen (about 300 km).

From the military fort to Patagones (on horseback, 500 km)

From Patagones to Buenos Aires (on horseback, 800 km)

Total of kilometers: 1600

ackground of the Expedition Plan: When he returned from the expedition to Southern Patagonia, on May 8, 1877, Moreno prepared a long report on the results obtained from this travel which was submitted to Minister Bernardo de Irigoyen for consideration, and he began writing his book *Viaje a la Patagonia Austral*, published in 1879. On October 17, 1877, he donated his museum to the Government of the Province of Buenos Aires which became public heritage under the name of Anthropological and Archeological Museum of Buenos Aires. Moreno was appointed its Director.

In March 1879, he received a letter from the National Government informing that ...the President of the Republic orders an expedition to the Southern territories washed by the Atlantic Ocean and appoints you to direct such an important.

The President hopes you will not refuse to accept the commission assigned to you, therefore adding a new service to the ones you have already rendered to the country as regards this kind of studies.

Hereby, the Honorable Government of the Province is requested to grant you a license to accept this appointment,

leaving temporarily your tasks as Director of the Anthropological Museum.

Immediately, on April 2, 1879, Moreno answered back accepting his appointment and requesting as compensation only ...the right to add the objects of scientific and cultural interest that I would collect to the Anthropological Museum of the Province. At the same time, he gave more information about the places worth visiting and detailed the necessary elements (tent, horses, weapons, provisions) the expedition had to have, estimating that \$4,600 would be enough for investment and expenses.

The National Government sent a

letter in April, 1879, accepting Moreno's proposal, and thanking him for "...the patriotic unselfishness with which he was ready to carry out such a difficult mission...".

Immediately he began organizing the expedition and, also immediately, difficulties arose, ...caused by the frequent behavior of those subordinates who, among us, are against superior resolutions.

1878 - 188() 1878 - 1888()

exportation is carried out. This would become, thirty years later, the most important Argentine export product.

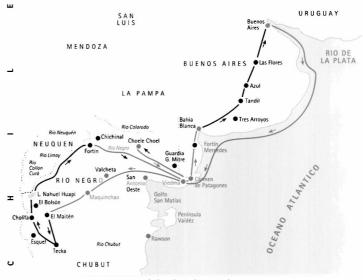
1879. The campaign to the desert begins, led by General Roca, Defense Minister of President

Avellaneda.



Julio A. Roca.

The war of the Pacific begins among Chile, Peru and Bolivia.



Itinerary of the fourth expedition.

Historical Background

Thomas A. Edison, from the United States of America,



Thomas A. Edison

invents the photograph.

An important technological achievement: the first cargo ship with cooling system travels between Australia and London.

From Argentina, "Le Frigorifique", a French ship that produces artificial cooling, carries some tons of frozen



Le Frigorifique. lamb meat to Europe.

The first paper sheet is produced.

Buenos Aires has 300 stoned streets.

Moreno asked for a navy vessel for studying the Southern Atlantic shore; after long procedures, it was decided upon that the gunboat Brana would take them; but the Commission should depend on the Commandant's resolution, what was not accepted by Moreno. Finally, he had to make a deal and accept the steamer *Vigilante*, of one hundred tons, used for to the Navy fluvial service and completely inadequate for the expedition that would operate in the vast region from Buenos Aires port to the dangerous waters of Cape Horn.

Moreno finally accepted without putting obstacles, obliged by ... the big ignorance of those who had in their hands the decision about the required elements to carry out such a great expedition... With difficulty, he managed to have an iron wedge-shaped armor built in the prow of the Vigilante so as to lessen the danger of the waters to be navigated.

Consequently, at the beginning of October, he decided to set off ...with just a few elements, but with plenty of instructions, most of them impossible to fulfill. Will there be any sailor who believes it possible that a steamer can navigate through the South Atlantic, and especially, along the coasts of the Strait of Magellan successfully?

oyage: It began on October 5, 1879. That day in October the steamer *Vigilante* departed towards Viedma. Moreno thought about the impossibility of following the official instructions, which had to be adjusted according to reality. That is why, when arriving in Bahia Blanca, he told his action plan to Minister Zorilla, who had substituted Sarmiento.

He answered firmly with a strong letter, making him know that he had to follow strictly the instructions he had received.

They managed to reach Viedma after very hard days during the voyage. Almost immediately they began navigating upstream the Rio Negro. After about 450 km, they gave up their objective as it was very difficult to sail because there were banks and the vessel was inadequate to overcome these obstacles.

> Consequently, they started the return, now quickly, and on November 3 they were back in Viedma. There Moreno planned future actions.

He decided that the crew of *Vigilante* had to go along the coast of San Matias Gulf, draw a map of San Antonio Port and drill in search of drinkable water. On his part, he together with engineer Bovio and other people would explore the

western region.

xpedition by Land from Viedma: It started on November 11. The expedition had a good number of horses and mares for food. Moreno was accompanied by engineer Francisco Bovio, Jose Melgarejo, from Entre Rios, and Alfredo Van Tritter, Belgian, both sailors of the *Vigilante*, among others.

On the second day, they reached Guardia Mitre, 50 km far from Patagones; in its nearby area there was a very vast plain where Mapuche Indians had camped; they became very suspicious after knowing Moreno's purpose of reaching Lake Nahuel Huapi.

The old cacique Sinchel lived in this place. He was one of the last pampas or gennalænes. Powerful in old times, he then was very poor. *He* told me that on my way I would find Gennakenes Indian village and that I would be welcomed there.

Sinchel remembered Captain Musters who had been his friend. I had known him in his prosperous time, six years before, but although circumstances changed, adversity did not embitter his nice and loving personality. His being extremely tall, his reddish mahogany hair and his built similar to Red Indian



chiefs, made him outstand from the other Indians as a typical survivor of a race in extinction. Wrapped in his big guanaco quillango, he received me with honors in his huts with the ease of a civilized man. He recognized the superiority of Christians

over the Indians and he knew about the fatal end that the Indians had to face.

He added that these fields belonged to his grandparents and that it was useless to praise their good conditions to settle because the white man knows everything and will take advantage of everything the Indians could not use due to their ignorance and laziness, as a result of the bad spirit that made them unable to learn to work.

Thanks to his good advice, Moreno added two new members to his group. One of them was Hernandez, a *gennaken* mestizo who lived near

Sinchel's Indian village and said he was the son of an Argentine Army officer. Despite his somewhat murky past, Moreno considered that he could be useful as he knew very well the habits and traditions of *gennakenes*; it was easy





The German Engineer Ernest W. Siemens invents and puts into functioning the first electric locomotive.

1880. A serious institutional crisis begins for the presidential succession. The conflict between President Avellaneda and the governor of Buenos Aires, Carlos Tejedor, finishes with the intervention of the Province, the election of Julio A. Roca as president of the Nation and with the federalization of the Province of Buenos Aires; a decision that led to the foundation of La Plata as the capital city of the Province in 1882.

Thus the city of Buenos Aires is consolidated as the best center of wealth of the nation. The city benefits from the new economic development. There is a great influence of Europe on its taste and fashion.

The Colon Theater is the center of the social activities of a rich



Colon Theater.

Contexto histórico

minority that begins to travel frequently to Paris.

The population grows fast; in five years 259,000 immigrants arrive.

Migration flows from Europe are intensified.

The world population, that was 900 million at the beginning of the century, reaches 1,500 million.



Immigrants.

to convince him to join the expedition. He was also lucky with Gavino, another old acquaintance of his, born from a gennaken mother and a Mapuche father, who was also very glad to be part of the expedition.

These friendly Indian predispositions made him think of how important it would have been to establish a commission of good Indians, well connected with the Andean groups, whose advice would have been useful for their incorporation to the Nation. Instead of this attitude (advised by Moreno since 1875) they preferred the argument of the Remington, ...and therefore many thousands of useful lives were destroyed.

Near Guardia Mitre, they found a group of Chilean Indians, who informed them that the tribes from the Cordillera were about to rise in rebellion. This, together with the reports obtained by Hernandez y Gavino, convinced him that a sudden attack to the valley villages was getting ready.

Knowing this situation, Moreno left Bovio in charge of the caravan and set off *like a bat out of hell*, to Choele-Choel where the main body of

the National Army was. General Villegas, who was in charge, offered him an escort of soldiers and, as reinforcement, two garrison veterans, who knew a lot about the dangers of those fields. He thus completed the team and went to the South to join engineer Bovio and travel on.

We were already sixteen between Indians and white people and we thought that at least eleven were well armed, and I say "thought" because when we needed to use the Reminator cartildae cumpled in Buen

the Remington cartridges supplied in Buenos Aires they were useless.

o Valcheta and Puitchualao Villages. The following day they crossed Gualicho valley, advanced southwestwards and reached Valcheta, 100 km far from San Antonio Oeste (today it is a city beside the railway network that links it to Bariloche). They stayed there for some days which men and horses spent resting and Moreno used for collecting a great deal of material for his Museum: arrow tips, human bones, mollusks and Indian mortars.

On December 6 the caravan continued; they crossed Yamnagoo plains and passed by Sheela springs. From there, where they camped, he sent two post boys, one to the south and the other to the northwest in search of inhabited campsites.

Yamnagoo was the best-known place to hunt in Patagonia with the

prior consent of the owner of the region. Several guanacos, rheas and small armadillos gave the possibility to the guides of cooking gennaken dishes and replacing mare meat that was already becoming not very pleasant...

These feasts, which made the members of the expedition happy, did not last long. The two post boys came back without finding Indian campsites; the weather turned rainy, one of the men slipped, another broke his arm; all these interpreted by the Indians as bad omens increased their distrust, worsened by the rest.

Apart from the bad omens, both Hernandez and Gavino were frightened and feared to go deep into the lands of apple trees, because they had been warned about the anger and bad disposition of the people living there. However, Moreno's decision was firm: they had to continue.

And they did so on December 11; they first crossed a volcanic region and then they went through a hill, found a lagoon of fresh water, crowded by birds, and admired from a high place the most fertile land in their way. A group of horses, a large herd of white mares, some cows and a small flock of sheep showed that an Indian camp had to be hidden nearby.

And there it was. The Indian village stood in a narrow, green valley full of springs. The bells of the horses, which were going down a steep slope, raised the alarm of the Indians; the guides recognized some of them, said their names, and soon after the members of the expedition were surrounded by forty men, almost naked, that looked at them in surprise. The interpreters began to do their job and they thus understood they were among friends.

These were the huts of Puitchualao who was the Great Gennaken Cacique, a race that was fading away and that Moreno wanted to know for many years. Once the tent was up and the load organized, together with his friend Bovio and the interpreters, he was solemnly received by Puitchualao, ...an old man of about 60 years, with a square face covered with wrinkles, under which the solid skull frame could be guessed. His long hair was tied with an Araucaria headband and his body wrapped with a new quillango, which revealed his wide brown chest and his strong arms and legs.

The ceremony was very friendly; the two daughters of the Cacique were in charge of putting all the possible furs behind them so as they could lie their backs. Affectionately, the Great Cacique shook hands with them and then he gave a very long speech, in Pampa language, stating that he had never dreamt of having the honor of receiving them in his hut.

Moreno answered saying that white men admired the old heroic actions of the pampas and that his visit had been motivated by the strong desire of knowing them.





Three days in the village allowed him to make very interesting observations about the primitivism of Gennakenes, their laziness and neglect, what made him state that in a few years this race would not have one single descendant. Such predictions turned out to be correct.

On December 13, he told Puitchualao that he had decided to go on. They said goodbye for a long time; they lasted more than two hours. A short time later the huts of the Great Cacique were out of sight and Moreno was convinced that they had been the last travelers who had seen the *gennakenes* leading their nomadic life.

owards Inacayal and Foyel Indian Villages, in the Cordillera Region of Chubut. They traveled to the Southwest, crossed a range of hills and mountains and went through fields covered with grass and small streams where there were many guanacos; they camped in a place called Yaulonuka (where roots are cultivated). There they

found many small caverns where paints, guanaco bones and engraved silex were kept.

Bovio stayed in this place with some of his partners while Moreno, with a small group, went to the North in order to know the famous Maquinchao plains, previously visited by Musters.

But as he advanced, he had a feeling, because of some signs, of the presence of Mapuche Indians and this seemed to confirm the already received news: Shaihueque's purpose of capturing him. So he decided to return to the South to meet Bovio and continue together towards the Cordillera region.

He considered the situation; he realized that many caciques were furious with the treatment received during the desert conquest. Particularly, a new event worried him: the arrest of six Indians accused of killing nine wagon riders that had been transporting supplies to the military campsites on the Rio Negro.

Shaihueque and other caciques asserted the innocence of the arrested Indians; in order to put pressure on the National Government and to obtain their freedom, they had planned to capture Moreno and to hold him hostage until exchanging him for the prisoners.

While traveling southwestwards, about three days before arriving (approximately 200 km) they reached the place which is nowadays called *El Maiten*, in the Province of Chubut. They went on to the South in search of Inacayal and Foyel Indian villages, in the plains of Esquel. In

their way, they went through the beautiful valley of Cholila, situated to the west of the present provincial road 71.

In the transversal valley of Leppa (today Lepa Station) about 30 km from Esquel, they stopped to continue the following day to the villages. From this place, and to keep up an Indian tradition, he sent two messengers to announce his arrival at Incayal and Foyel.

Five years later, on November 25, 1885, when visiting this region as far up Leppa and the chains of the Situacion (today Rivadavia), the first Governor of Chubut, Lieutenant Colonel Jorge L. Fontana, decided to found Colonia 16 de Octubre, where many Welsh families, who had lived in the valley of Chubut on the Atlantic coast, settled down.

The possession of these lands was a cause for controversy during the boundary issue with Chile that claimed the disputed region as their own. Moreno, in his capacity as Argentine Expert [in Spanish,*Perito*. Francisco Moreno is generally referred to as "Perito Moreno"], obtained a favorable resolution for Argentina with indisputable arguments based on his geographical knowledge.

Before arriving at their destination, he met Utrac, Inacayal's son, as ambassador of both parties, accompanied by some young Indians. At sunset, they could make out the village, ...on the

sunset, they could make out the village, ...on the vast green grass; the flag, which he had given Utrac as a present some years before, was fluttering over Inacayal's hut, as testimony that that region and its inhabitants were all Argentine.

Utrac aslæd them to wait for some time so that he could inform his father that they were ready for the reception ceremony. It began with some rounds of joy. Fourteen of our horses took part galloping very fast, making three circles around the long queue of 130 warriors whose shouting upset our horses. ... A giant tehuelche, almost naked, with a very big sheath knife, which may have had colonial



Cholila Valley. Photograph taken by Moreno (1896). I the evil spirit that

blade, was at the front stabbing the air so as to drive away the evil spirit that could be growing among the people who had arrived and the ones receiving them.

Once they finished the three traditional rounds, Moreno, in spite of being fifty meters from the huts, respected the ceremony and sent a messenger to inform that he would approach to give him his right hand. They shook hands energetically once and again, leaving him and his partners almost exhausted.

Inacayal welcomed them; but he wanted to know the purpose of their visit and to gather all his people "to listen to his friend". Moreno answered:



WeIsh immigrants.

Inacayal knows that his son Utrac is my friend, he is like my brother... and I have promised to visit him in his house as he came to mine...Besides my government has entrusted me to visit the caciques who live to the south of the lagoon because they want to know their needs...

After the first effusiveness, he told them about his plan: to go on as far as the great lagoon. This news arose an important discussion; it was considered that the travel of a *huinca* [white man] to Shaihueques's village, known under the name of the Government of the Apples, was not convenient. It would not only be negative for the white

man but also it would give rise to animosity from the tribes that had helped him.

In this situation, Inacayal and Foyel, who also had these fears, decided to call on a parliament to deal with this problem.

The parliament began three days later; in its last meeting on December 10, 1879, it was resolved to authorize Moreno's travel and to allow Utrac to continue as guide.

he Expedition Went on towards the North. Poisoning Attempt. Again in Lake Nahuel Huapi (January 18, 1880). He stayed some more days in the Indian village in which he explored the nearby valleys; on January 5, he sent a post boy to Patagones to inform Minister Zorilla about the first results of the travel. On the eighth, he moved the camp and left in Tecka all the baggage and the collections obtained as far. He started to travel towards Lake Nahuel Huapi, which was about 200 km to the north.

As engineer Bovio's physical condition was not good, Moreno decided to return to Tecka, with half of the people. He considered that for defense reasons, it was the same to have five or ten men; besides, the smaller the group the less suspicious it would become.

They arrived again at Cholila valley, at a place called Caguel Huincul (transverse hill) where one of Utrac's families lived. In this place, Moreno was about to die because of poisoning but he survived just by chance. His partner, the *mestizo* Hernandez, could not overcome it and died some days after the attempt.

Although Gavino had already informed him about the presence of "poisoners" in that place, he did not take the warning into account when a woman approached him with a bowl full of strawberries and milk. And together with Hernandez, they started to eat. But Moreno stopped eating because a little Indian girl tried to prevent him from putting his hands in the bowl and he thought she did that because she wanted the exquisite fruits. So, after eating a small portion, he gave her the bowl whereas Hernandez went on eating.

Some hours later, both felt strong pains that Moreno managed to relieve with the laudanum he had. On the contrary, Hernandez's situation worsened and he died a month later.

Why did they try to poison him? Utrac explained him the following: the Indian who tried to kill Moreno and Hernandez was one of Utrac's women, who was very jealous of him. She knew he had another woman in Nahuel Huapi and therefore she wanted him to stay in the campsite and not to go to the lake. If she had managed to kill Moreno and Hernandez, Utrac would have been left alone and unable to continue the journey.

As regards the little Indian, a slave of Utrac's woman, she tried to save Moreno's life not letting him eat the strawberries. She did that because she was very fond of Moreno who was also very affectionate to her and often gave her sugar and other food.

From there on, Moreno continued together with Utrac, Gavino,

Melgarejo and Antonio Van Tritter. Soon afterwards, an emissary of Shaihueque reached them and gave Moreno a letter from Loncochino, Secretary of the Superior Government of Don Valentin Shaihueque, inviting him to visit the Calcufu Indian village and stating that the rumors about the intention to capture him were false.

I knew already very well how false the mestizo Loncochino was and I preferred facing the troubles of the future rather than going back without knowing the topography of the south and west of Nahuel I luapi, the region of the famous path to Bariloche.



And on January 18, 1880, he arrived at the majestic Nahuel Huapi for the second time.

He settled his camp right there on a lake esplanade and stayed three days, during which he explored the surroundings. In one of his explorations towards the southwest, he gave the name of the author of the National anthem, Vicente Lopez y Planes, to one of the mountains of the region, nowadays known as Cerro Lopez.

owards Caleufu. Baptism of a New Lake: Juan Maria Gutierrez. On January 22, they left for Caleufu, a two-day trip from there. The first day they traveled on without important obstacles, through entangled forests and streams. When it was already late, they camped to



Lake Nahuel Huapi. Present photograph.

rest and continued very early the following morning. That day, Moreno decided to explore alone, a little further towards the West in search of a mountain pass in the Cordillera to cross to Chile. In his route, he saw a picturesque lake surrounded by low mountains that surprised him because of their beauty.

What a charming set formed by the giant trees, dominated by the cypresses and colihues... quivers covered by bunches of red flowers... the lake waters dyed with the colors of the forest rough large rocks standing out in the white, brownish, black,

red and greenish (due to parasite ferns) forestland; mosses and canes swayed by the Andean wind; everything under a blue cloudless sky standing out even more the white of the everlasting ice. Those waters did not have a name ...and a beloved name, Juan Maria Gutierrez, came to my memory. When I was a child, the old man with that name told me astonishing descriptions of the American nature, which he felt so well..., later his friendship was valueless and his encouraging words were always present... Giving his name to this



Lake Gutierrez. Present photograph.

quiet and beautiful lake like his spirit was my tribute to express my admiration and gratitude.

He went on a little further eagerly, longing for re-opening the traditional Bariloche Pass, through which pioneer explorers had crossed to Chile. He knew a story about the Chilean explorer Guillermo Cox, dated 1863, in which he described an important opening formed by an inflection of the Cordillera. Cox wondered if this opening would be the one giving way to the famous Bariloche path

along which the Spanish priests passed from Chiloe to their mission in Nahuel Huapi.

oreno, an Indian Hostage: January 25. He did not continue for a long time as he was worried about having left his partners alone in the campsite considering the threat of being attacked by the Indians who were pursuing him. So he began the return but, just before arriving, he discovered in a path, hidden in the foliage, a young Mapuche who saw him, screamed a war shout and lifted his spear. Immediately Indians sprang up from everywhere, the campsite was surrounded by about a hundred of them, led by Chuaiman who told him he was there on Shaihueque's behalf to take him to Caleufu village.

I was in no condition to resist... the Araucanian Indians had already occupied all the paths and I decided to use my wit, pretending not to know what would happen to me and I accepted going with them. I had been caught but I was prepared; I had planned beforehand what to do in this case.

The plan Moreno referred to consisted of adopting measures to save his partners: first engineer Bovio, who was in Tecka, and then Utrac and Antonio, so as to stay only with two men, Melgarejo and Gavino, because the raft he wanted to use for their escape through the Limay river could only bear the weight of three men.

Ite immediately put his plan into action: he let his guards know that he wanted to gather all his group and asked permission to give an order to engineer Bovio (who had stayed in Tecka) to go immediately to Caleufu. *The Secretary of the Superior Government of Apples*, Loncochino, accepted *joyfully* this request because this would increase the number of hostages and he would partly recover his almost lost influence.

Moreno took advantage of this circumstance by sending the three post boys with the collections he had gathered so far. What Loncochino ignored was the fact that the Indians had to let engineer Bovio know his instructions verbally, according to which he should not have to pay attention to the written message and, therefore, he had to stay in Tecka where he would receive a new order with accurate instructions.

Two days later they arrived at the Limay river, which had to be crossed on a raft and swimming. At this moment, Moreno began to act.

There, in the Limay, it was the saving vehicle: a raft made of branches on which the Indians placed the messages and they crossed swimming handling the sides; a raft that would serve as model to prepare the one I devised to use in the Collon Cura. Crossing as easily as the Indians would have been

suspicious; I warned my assistants that they had to tell the Indians I was afraid of water and that I was ill; when I got into the water, I pretended to feel strong pains in my legs and asked for permission to cross on the raft instead of grasping the submerged sticks. I succeeded but they laughed at the white man's weakness.

Three hours later, they entered in the



valley of Caleufu; ...the huts were in the same place as I found them in 1875-1876. They rested for a while behind a little hillock, an opportunity Moreno took advantage of to hide sardine tins, one of pate, the remaining provisions, a barometer and other instruments that could alarm the Indians.

They approached the huts, among armed Indians that arrived from everywhere, insulting them while they moved on, especially Utrac and Gavino who were considered traitors because they were Indians.

The captivity would last until February 11, the day of the escape. They were eighteen hard days, difficult to bear, in which Moreno and his partners'

extraordinary courage and physical resistance were put to the test.

he First Day of Captivity: January 25. This day was extremely tense from the very beginning. They were received by furious Indians who were drinking hot blood of recently killed mares: they insulted and threatened Moreno as well as his partners, especially Utrac and Gavino.

Moreno had to leave his two partners, Melgarejo and Antonio, to go alone to Shaihucque's village. He was afraid that something wrong could happen to them; he advised them to be calm and to look proud as the Indians respected personal courage very much.

As Utrac and Gavino were Indians, they would stay with them.

According to what he himself admitted, he was not at ease in Shaihueque's hut. The great respect that "Peñi Huinca Moreno" or Christian Brother Moreno deserved on the part of the Indians was not enough to stop the distrust and discomfort they felt for the white man due to the attacks suffered since the military campaign started in April 1877.

Caciques that were Moreno's friends such as Inacayal, Foyel and Shaihueque, felt helpless to contain the rage that dominated his men.

He knew this well when he got into the hut. His behavior during the long speech was remarkable: quietly and courageously, he could succeed in that hard test where, according to his own words, he risked his life and managed to finish it with no victors and no vanquished.

In some passages of his narration, Moreno said: ... In order to get into the big Shaihueque's tent, I lifted the leather covering the entrance. Shaihueque was lying on the fur cushions that served as throne and bed. Calling me friend, mate, he held out his hand to me which I rejected. I sat down opposite him, without answering.



I lis behavior caused Shaihueque's discomfort who called Loncochino in an indifferent way. He entered immediately and, after him, all the other caciques and captains. The big hut was crowded with a hundred warriors who went to listen to the prisoner's reasons: his audience consisted of naked, painted men with long hair and armed with slings, bolathanging from their belts and long knifes.

Moreno looked proud in his uniform of major sergeant; Utrac and Gavino were sitting next to him. He did not feel frightened when Loncochino insulted and threatened him and he demanded respect. He said: If I had suspected that you would insult me this way, I would not have come.

After different alternatives, the parties came to an agreement; he accepted to write a letter to General Villegas the following day to ask him to free the Indian prisoners.

Having finished the long speech, he returned anxious and excited to the place where his two assistants were. He calmed down when realizing that, in spite of being surrounded by a curious and unfriendly crowd, they managed to keep quiet.

Moreno went on thinking about the accomplishment of his plan. The first difficulty to face in order to escape as planned was not to sleep in the great hut of the cacique.

To this purpose, he pretended being very ill, almost unable to walk; with Utrac and Gavino's help, he managed to convince Shaihueque to let him sleep in the tent he had given him as a present in his previous visit.

Once the proposal had been accepted, they put up the tent four meters far and looking to the east. They had no tent in front of them; only the field for the last race to the river. That night they slept in the tent without guards in front. How could the Indians think that they would escape on foot being so far from the border?

oreno Continued the Execution of his Plan. The following days until January 30 were calmer and Moreno had time to prepare the other part of his plan.

On the twenty-sixth, he woke up thinking of engineer Bovio; he had to tell him to go to Choele-Choel immediately. He took advantage of Utrac's generous credulity and his power over him to convince him that it would very convenient that engineer Bovio could go to Choele-Choel and influence General Villegas to obtain the release of the Indians. Obviously, Utrac ignored his plan of escape – he would not have allowed him if he had known about it – because he thought that when the freed Indians would reach the campsite, Moreno could leave and he would take him.

As soon as Utrac accepted, Moreno wrote a message in French to his good friend, warning him about what was happening and giving him fifteen days to reach Choele-Choel.

At midday, the Indian chosen as post boy began his journey very slowly in order not to look suspicious, with a message for the engineer that was hidden in the *huincha* [Spanish word meaning 'headband', spelled as it sounded in the Indian language] he wore to tie his hair. Moreno was pleased: he had fulfilled another part of his plan.

> On the twenty-seventh, Loncochino began to harass him. Impatiently, he demanded Moreno to write the promised letter to the National Government. As he wanted to delay it until engineer Bovio could leave for Choele-Choel, he pretended to be very sick. Besides, he added annoyed: *How do you want me to write a letter if you do not give me paper and ink?*

> > But on the twenty-eighth, he started, though very slowly, writing the letters. Loncochino watched him attentively, interrupting him every now and then to make sure he did not hide any written sheet.

On the thirtieth, the post boy had to leave. Moreno managed to convince Shaihueque and Loncochino that it was better if one of his

men took the letter. Antonio was the one chosen for this mission. He carried two messages; the first one Loncochino read was the letter in which he asked General Villegas to release the imprisoned Indians and to send them back to the village in Caleufu; when they arrived, Moreno would be released.

The second message, ignored by Loncochino, written in French and on a sheet of paper later torn into pieces, was carried by Antonio hidden in the collar of his bolero. With this letter, Moreno warned Villegas that he had to disregard his request and to leave him to his own strength because he had a plan to escape and to go to Choele-Choel.

How did Moreno manage to convince Shaihueque and Loncochino that it was convenient to send one of his men as post boy?

He said the following:

Tell me, he asked Shaihueque, do your Indians have any passport to be allowed to cross the border? When listening to this, Loncochino became alarmed and, ashamed, admitted that he had not thought about that. So, I will give you a passport because I want my friend Shaihueque to succeed. And I quickly wrote an order to the border chief that I do not know if he exists, begging him to assist the post boys.

This did not fully satisfy Shaihueque; he was not at ease and he asked: Would they harm the post boys?

I do not know, my friend; maybe not, if they manage to arrive without being seen; but if this happens it is possible they open fire now that you are enemies of the army.

Cacique and Secretary, Moreno added, were very confused about this completely logical reasoning. I help them solve this difficulty telling them:

Why don't you send one of my men? I believe that Antonio knows the fort and even when I am ill and he is very useful to me, I would let him go as he could be of great help.

A moment later Antonio, astonished but warned, was _____ on his horse not only with the letters but also with a long list of provisions: sugar, yerba, ponchos, boots... The good Belgian man left without exchanging a word with me, but touching his collar: there was the hidden letter. But later I saw him crossing the Caleufu and climbing the path to the Limay. It was a beautiful afternoon; I followed him with my eyes for a long while and I thought: one more of my men has been saved.

Antonio ful to me,

After Antonio left, he was very happy. His plans had been accomplished so far as expected: he managed to save one of his most loyal and courageous men, Antonio Van Tritter, who had heen with him so many times.

ays of Intense Turmoil. Until the day of Antonio's departure, the campsite was very quiet. But from the following day, January 31, everything changed: all the Indians became very excited. The post boys ran fast through the valley; they continuously received increasingly alarming news. The uneasiness reached its maximum peak when an Indian informed that he had escaped from the fort of the Rio Negro together with other two men who had been caught and shot to death immediately.

I do not want to remember those moments, said Moreno when referring to the events that took place those days and endangered their lives.

The military maneuvers of the Indians, their mock hattles with spears, the anger of old warriors that insulted them and subjected them to various forms of humiliation made it really impossible to bear the situation... more than one spear tip tickled my chest and more than one stone out of a



A fort of that time, on the Limay banks.

sling whistled past my ears; even so I had to pretend that I was completely calm: the least terror movement would have been my ruin.

Those agitated days finished with a big meeting of the Indian council held on the plains, in which it was decided that all paths nearby the border would be occupied and that they had to be ready for combat.

When finished, the Indians went back to the huts. Moreno took advantage of this circumstance

to return through the track close to the river and to study the path chosen for his future escape. He went on pretending he was terrified of water, feigning an incapacity that made the Indian laugh: ... when crossing streams I got completely wet falling into the pools, but I paid attention to every meander of fast-flowing Collon Cura.

When he arrived at the tent, he found Melgarejo very frightened and became even more alarmed at seeing him in such a terrible condition. But after explaining that he had gone to the place where they would embark, Moreno managed to calm him down.

Even when that afternoon we only had noodles made from the hide of an old halter to eat, the idea and joy of being free soon gave them comfort. The moment to escape was near.

They had to wait a week more for the expected escape on raft along the Collon Cura. The situation got complicated again with the arrival of well-known witches, who Shaihueque had called from Chile, and also with the beginning of religious celebrations known as Rogativa, on February 6; in this party the Indians got drunk and filled the air with their shouts, becoming violent.

This time the celebrations had a very aggressive nature, with a prevailing angry war spirit. The main prayer of old captains, when pouring liquor on their red spears, consisted of asking for strength in their right hands to plunge them into the chest of the huinca.

Feelings were already too agitated since, the previous day, at the beginning of these parties, the arrival of one of the witches from Chile increased the fear of the Indians with the prediction of a Christian invasion.

eeting among Witches. Moreno, *Moreno bull*, or *Peñi Huinca Moreno* (Christian Brother Moreno) was admired and respected by the Indians not only for his great physical resistance but also for his great courage, qualities that the Indians highly valued. But other factors contributed to increase the prominence and prestige he had among the Indians: the fame as a powerful witch, feared by the tribe witch-doctors.

Two versions told by the Indians themselves contributed to reassure his reputation. The first one referred to the fact that *witch Moreno* had made a dog appear from the waters of the Great Lake, the Nahuel Huapi; the second to his extraordinary strong power with which he had moved a huge sacred stone, symbol of Shaihueque's authority.

The first story is related to a dog that approached the campsite in search of food and it joined the group and it later went together with Moreno to his explorations. Such a strange appearance was explained by the Indians through Moreno's magic powers since he had made a dog come out from the cold waters of the lake.

That is why when Shaihueque brought three remarkable witches from Chile, only one of them accepted. The other two refused because, Moreno said, ...they were afraid of being in front of a witch with such powers.

The one who dared chose for his invocations a place far from the tent where Moreno lived. On February 4 at night, he went to a dense thicket with all the necessary things: a bag of guts full of magic stones, the "*ralí*" or the drum and sticks to begin the works. At dawn, the following day, when he was completely exhausted, he spoke and said: "Christians invade!".

The news reached Shaihueque almost immediately and he sent Loncochino to wake Moreno up. He faced the witch in front of a crowd of half-asleep and naked Indians and said: *The "Machi" is mistaken: can he know more than a powerful witch as I am?* Then, Moreno explained that the consulting elements used by the witch were not enough and that he had to make a new "*rali*" and other more powerful sticks. The witch did so and began to hit his drum crazily, among the mad cries of the oracles. Finally, almost exhausted and affected mainly by the terror of facing Moreno, he changed his version: "The Army will attack but not here; this will happen in the village of Namuncura".

Thus, he was able to overcome a very difficult situation and to calm the Indians down for a while.

The peace this event brought lasted a short time since they heard the news that a post boy followed by Christians had drowned in the Collon Cura. On February 5, the confusion increased due to the arrival of the first fugitive families whose reports worried the Indians even more.

On the sixth, Moreno was greatly insulted; the following day in order to go on feigning calmness, he went to the celebrations, though on horse,



because he had convinced Shaihueque that he could not walk. On the eighth, Shaihueque did not allow him to leave his tent as something very serious was happening: the witch "*machi*" had managed to speak with the most powerful "*walichus*" and they told him that many captive Indians had been killed and that the rest of the prisoners would not return to the village.



They began to discuss the resolution to be taken. The witch explained that, to explate the Indians, it was necessary to kill Moreno in the same way as bulls and witches were, pulling out the heart at the edge of the water. But Shaihueque objected this: his hands would never be stained with Christian blood as his father, Chocon, before dying ordered him not to do that ever as "Christian clothes had wrapped him up at birth".

Shaihueque's firm position made Moreno feel hopeful again. That night, ...we slept happily, because we had also increased our provisions with the grease of a sheep that I had changed for my only shirt.

The following day, on February 9, Moreno sent Gavino to ask Shaihueque for a horse in order to be present at the *"illatun"* sacrifice, thus pretending he ignored what was happening and that he was fearless.

He waited in vain Gavino's return for a long time until a far cloud of dust showed him that a group of horsemen returning to the Indian village after the blood orgy was approaching the tent. They arrived drunken, shouting to the air high cries and insulting aggressively.

Melgarejo said, *they will kill us*. And Moreno answered, I bet you they will not dare.

And saying this, he left the tent when Shaihueque and Chacayal, drunken, arrived running into each other. Moreno stopped them shouting loudly and asked Shaihueque: Why haven't you sent me the horse I asked you for? Confused the cacique mumbled, Err, losing horses..., my friend.

Chacayal wanted to get off but he felt to the ground and remained lying in front of the tent entrance. The Indians picked him up and continued to the huts.

But the Indians kept on passing on foot in front of the tent for long hours. Men and women, drunken, yelling, crying, insulting and claiming revenge, made the situation dramatic: ...we escaped miraculously, with only one stab that destroyed my poncho.

scape Attempt Failed: February 10. On February 10 in the morning, there were drunken Indians lying everywhere, and they did not continue with the demonstrations because the warrior had to go back to watch the valleys. In the afternoon, Caleufu was solitary: tiredness had beaten them.

The quiet moment was positive to analyze the escape plan. Moreno told Melgarejo: *The time to escape has come. We either leave or die.*

They had to run away without being noticed by Utrac, Cochi-Miguel and Rauque, the guards who watched on the tent.

Moreno had thought to get them drunk, but how to do this if there was no liquor left?

Therefore, he decided to make use of chloral hydrate and potassium bromide that Dr Pirovano had prepared for his travel. He also added pepper seeds and half water and placed the obtained mixture in a pot that he heated on the fire.

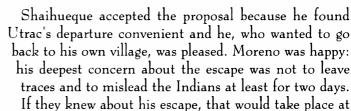
I made a fierce drink, without the slightest strange taste of chloral; the Indians believed that it was "michipulen", a beverage that was prepared with fermented pepper, and to avoid any suspicion I drank a sip. Soon the three Indians drank all the pot and when it got dark they were already completely asleep.

Meanwhile, inside the tent, Moreno together with Melgarejo and Gavino pretended to be sleeping. He had to leave first and go to the pepper tree where his revolver and food provisions (two sardine cans, one of liver paste and sheep fat) were hidden. Soon afterwards Gavino would go out and then Melgarejo. Once together they would go to the river to look for sticks to make the raft.

When Moreno reached the pepper tree, he took the gun and cleaned it thoroughly, he put away the provisions in his little bag and he waited for his partners in the agreed place, near the river.

Time passed, I did not hear any noise; only a dog barking far away. That moment was hard! ...I checked the bullets one by one... An hour went by, two and three; the clock hidden under his hair in the knot of a dirty and worn out kerchief, which served as hat, marked the time and neither Gavino nor Melgarejo arrived. At midnight I felt the noise of stones and a moment later Melgarejo arrived on horse and told me that Gavino did not want to leave as he was afraid because the witch claimed that I had written and he knew how we would escape. Moreno was very worried about this unforeseen situation so he decided to postpone the escape for February 11, and then the plan had to be carried out anyway. He believed he could convince Gavino to go with them.

he Escape Started: February 11. The morning of February 11 was quiet; luckily, nobody had noticed the failed escape attempt. Shaihueque, who seldom approached the tent –he was very afraid of the theodolite – that morning entered into it and treated Moreno with an unusual affability. I took advantage of this circumstance to convince him that it would be advisable that Utrac returned to the Inacayal village as the Indian prisoners would arrive soon and I could return to the Rio Negro; but to achieve this, I would need Utrac to bring fifty young lads from his father's tent to defend me in the path of Namuncura.



night, some hours after Utrac's departure, Shaihueque would think that they had escaped together and would order to follow horse tracks.

From the moment Utrac left with Gavino, who went with him only a short distance and then went back with one horse, Moreno together with Shaihueque spent three hours in the choeca field – the Indian cricket – until the sun went in. He then asked Shaihueque a piece of meat, which was grilled and brought by Shaihueque himself. Both stayed for a while joking about the bolas party of the following day and about getting wet, an experience that frightened Moreno so much and that he would face when crossing the river on the raft.

When Moreno arrived at the tent, he found Melgarejo and Gavino, who had already been convinced about the ignorance of the witch. As he had left that very afternoon after the Indians had killed a mare to pay him for his works, Gavino was completely calm.

The three managed to leave one after another as planned; they had only one horse and they had to do their best. When they got to the pepper tree, Moreno took the cans buried in the sand and sent Melgarejo and Gavino on horse to the place where the sticks to make the raft were. To remove the horse's tracks, he tied three stones to the rim of his poncho and he grabbed its tail: the poncho rubbed out the tracks. This way they arrived as far as the dunes close to the river where there was a lot of quicksand; there they had to take special measures not to step on



it as it was impossible to hide the tracks in the dunes.

Then he stayed alone waiting for his partners who were fulfilling their tasks. At half past ten at night, Gavino went back to inform him that the raft was ready. Ten minutes later they let the horse loose which would go towards the south following its homing instinct and thus misleading the Indian parties which would set out in search of the fugitives.

The raft was built with branches and a framework of nine willow trunks which made it quite safe and was ready to float in the Collon Cura. Before launching it to the fast-flowing river, Moreno wanted to have a souvenir of that historic place; so he cut a flower that was among the stones on the edge and kept it as a symbol for forty years, already colorless and withered, until he wrote *"Reminiscencias"*...

The departure was exciting and dangerous and Moreno described it in the book *"Reminiscencias"*: "

When we got on the raft, a third quarter of it sank and none of the three of us felt the danger we had just escaped from and we laughed heartily while going down the river at high speed. A "Goodbye Caleufu" was drowned out by the noise that the stones made when passing by the first shoal, submerging us; there I lost my shoes. The Collon Cura is a fast-flowing river and carries most of the melting water from the Andes; and the raft, now gliding gently over the deep waters, now rocking and sinking into the waves of stony bends; the current was its rudder. We had only navigated for two hours when we heard shouts on the West bank, where there were huts; and at that very moment a water avalanche threw us against a huge steep mountain whose foot was hit by swirling waves among large rocks; the poor raft got stuck between two of these rocks; the noise was loud and the darkness let us see only the white foam. If we did not leave that hell, either dead or alive, before daybreak, the Indians would soon find us; we knew it but in different ways. My two partners got naked and Gavino let his revolver fall and, soon after, Melgarejo, his knife: they wanted to climb on the rocks and to escape on foot. I objected; I was carrying a lot of weight: the belt with forty cartridges, the revolver, the flag, the travel diaries, the fat and the three boxes and, before leaving the raft, I would drown with everything. Having decided that and holding the trunks tightly. I tried to find underwater the obstacle that blocked us; the fact that I pushed together with the strong impulse of the water made the raft slipped from the rock; the raft got stable and rushed downwards with the torrent; the rocks scratched my legs and I have suffered from these wounds for months. But we were again floating on the wide river; we had overcome a situation of extreme danger!

Happily, before dawn, the raft passed near an island full of steep hills and they could moor there. ... I don't think I would have been able to go on longer. I am crippled with terrible pains in my back and waist, due to the great effort I had made in the water left me immobilized. Melgarejo had to get hold of me so that I did not fall into the river.

As the mountain was too steep in that place, there could be no Indians and, consequently, it was not dangerous to light a fire. They did so and continued sailing during the night because the Indians were still too close; they spent the day on the island naked, drying their poor clothes under the sun.

The fat exchanged for the shirt was the lunch that day.

he Night Trip Continued: February 12. At sunset on February 12, Moreno and his partners left the shelter and reinforced the raft that was not in a very good condition.

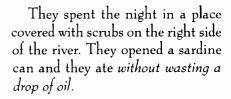
At night, they began to travel and this was very difficult; the flooding had covered the islands and the current crossed over the trees which, at every moment, crushed the raft with their branches. There was a deep darkness, the roaring noise was deafening and the raft ran very fast between the stones.

More than one hundred times they were about to capsize and destroy the raft. When it ran aground on a beach of a sheltered island, they decided to stop and rest until the following day.

hree Days Traveling with Daylight: February 13, 14 and 15. On the beach they had arrived late at night on February 12, they took a long break until three in the afternoon the following day, drying themselves under the sun protected behind a trunk.

As the river seemed free of obstacles, they thought that it would not be very difficult, but they were wrong: the pools increased, and this meant a great effort and waste of time to continue; some other times, the waters

were so shallow that they were forced to tow the raft barefooted over the stones suffering the natural pains this caused.



On the fourteenth, the weather



was fine: the river was clear even when the pools and sand banks made the navigation dangerous. The bends were fast and, in one of them, the raft turned over which luckily they managed to recover. At sunset, after having advanced a lot, overcome by tiredness and hunger, they slept on the bank after eating the last sardine can.

On the fifteenth, they arrived at a place from where they could see the point where the Rio Negro separates from the Limay and gets into the mountain.

They were exhausted, lacking in energy due to the great efforts and the shortage of food. However, they went on sailing until night. They did not dare to get dry near a fire, afraid of being detected by the light.

That night was maddening. They only had the liver paste to eat but they decided to keep it for another occasion. For hours they stayed peeping at a poor thin dog, lost in those places, which did not dare to join the group.

ast Advance and Caution: February 16. Moreno thought that the big *Geyu-Apple* tree would be full of fruits to calm their hunger, but the current was so fast that they could not stop. *We could only "devour" with our eyes the green bundles*.

Further down they saw a thick smoke. Would they be Christians? Would they be Indians? Gavino and Melgarejo wanted to answer back with smoke signals but Moreno suspected that they could be a group of Indians stationed there to trap them. Instead of making their presence known, they continued through the red and beautiful narrow passes and, at sunset, when they arrived at the place where the fire had been, they disembarked, hid the raft and looked for traces: they found fourteen. Undoubtedly, the Indians had left that place hours before and they got away following the path of the hills: they had escaped from falling into a trap! They celebrated the afternoon with the liver paste, the last provision though enough to cheer them up.

ast Day of Navigation: February 17. This was one of the saddest days that Moreno remembered: they were exhausted and starving; they could only eat some roots. The thirst was ravenous and the high temperature was killing them.

Fortunately, the trip on raft was quiet; they were so tired that they could not even talk. At night they lay on the beach, depressed, being hopeless about the future. Moreno wondered: *Will we reach the Neuquen? Will there be a fort?* He was full of terrible doubts. hey Left the Raft and Started to Walk: February 18. On the eighteenth, just at dawn, they made the last effort to continue. But, at midday, they were so tired that they could not lift their arms so the raft became unmanageable and had to leave it.

Moreno was the only of the three who knew the place. It was very hard for him to persuade his partners that the Neuquen was near and that the low land that could be seen at sunset was the Rio Negro.

They started a long and dreadful walk, according to Moreno:

The scene of the three starving men was very sad... I was ahead, Melgarejo half a block behind and then Gavino, the slowest walker; from time to time, we fell down and when we run into a well of almost rotten water we drank as much as possible. I remember that between some bushes of one of these wells I remained unconscious for a long time. Only the afternoon breeze gave us strength and then I could notice that I had been right; the crag of the mountain that forms the northwest angle of Patagonia was in front of us: I lit a match and burnt the field. How couldn't they see the smoke from the nearest valley? If there were soldiers, they would come to fetch us; we did not have enough strength to arrive.

What a hard night I spent among thorns! My men did not sleep, they seemed dead. I wondered: dying when being so close, after all we have lived, when the lake is not a mystery any more, after revealing thousands of fertile leagues that were supposed to be deserted, when I have just proved sailing down with the raft that the river is navigable and that the waterfalls, which the river was said to have and that I had denied, do not exist. I set off to look for juicy branches, "cow tongue" stems, and I only found some pods of a false carob tree that stained my lips blood-red.

They started to walk covering their feet with sandals made with Gavino's saddle and moments later they found the Indian path. They continued moving slowly until sunset and they reached the stream that ran westwards: it was one of the Neuquen branches which drained into the Limay. Moreno tried to cheer his partners up, but they did not listen to him any more: *"We don't walk further, boss, we can't"*.

he End of the Odyssey: They Arrived at the Fort: February 19, 1880. Just at dawn, he called his partners and showed them the dark water that ran to the west: That is the Neuquen river, he told them. They stood up silently and began to walk; in the sleeping valley there was no movement but a dark spot could be distinguished. Would it be the fort?

When the daylight increased, they could see a cloud of dust. They are horses!, they exclaimed.

Moreno took out the flag from his chest and ticd it to a branch. Gavino climbed a hill and kept it fluttering meanwhile Moreno began to shoot his gun and the explosive sounds echoed around the hill.

I had shot fourteen times when we saw a group of veterans marching in the forest ready to fight. The soldiers trod on the opposite bank and they were greatly surprised when instead of Indians attacking they saw the flag waving in the air.



One of them got into the water with the horse and shouted: Who's there? Moreno, escaped from the Indian village, I

and shouled: Who's there? Moreno, escaped from the Indian village, answered. We are safe and alive!

The soldiers began to cross the water on their horses to help the fugitive men who were almost naked and completely exhausted, unable to take another step. In order to get to the opposite bank, they had to grasp the horse tails.

The officer of the Fort, Lieutenant Crouzeilles, offered them everything of the few things they had: mare broth and crackers, which meant a real feast.

The lieutenant informed them that that afternoon they had to leave the Fort, as they had the order to retreat to Choele-Choel.

If we had arrived some hours later we would have died, said Moreno.

There was no time to rest in the Fort as that same afternoon the forces had the order to retreat to Choele-Choel. Hours later Moreno got on a horse, in spite of his wounds altered by the sun and water, and at full gallop he reached the Fort General Roca, at night. Colonel Vinter, Commandant of the military forces, helped him get off the horse in front of his house.

The following day, always on horse, he continued to Choele-Choel without a rest. All the experiences suffered during the escape through the Limay river, from the night of February 11 to 19 were forgotten, and at midday he arrived without having the need of resting once.

In Choele-Choel he found his friend, engineer Bovio. Moreno could not control his emotion when he met him and they hugged each other very warmly, exclaiming: We are all saved!

From here to Conesa, 150 km, he continued his journey by wagon as he was extremely exhausted. He then went on riding his horse, despite his weak physical condition, because it was quicker; and he reached Patagones on February 29. Finally, he arrived in Buenos Aires, at the central train station, on March 11, 1880. There was a crowd waiting for him, among which there was Maria

Ana Varela, who five years later would become his wife. Moreno had to be got off the train on stretcher; his extreme weakness, the fever and his sore legs prevented him from walking. He had to be in bed for

several months to heal his wounds and recover his energy.

A month had passed from the day they escaped from Shaihuegue's village on February 11 to his arrival in Buenos Aires, on March 11. During that time, almost without resting, he traveled 300 km on raft along the Limay river and about 1000 km more on horse, until his arrival in Las Flores. From there to Buenos Aires, on train, 190 km more.

epercussion in the Press.

"La Nation", Wednesday March 10, 1880. Tomorrow the courageous explorer Mr. Francisco Moreno should reach this city. His friends and many other people who know him and appreciate the merits of this remarkable man and his services rendered to the country, risking at every step his life and being deprived of most things, are ready to receive him with all the honors he deserves. Moreno is coming by land and he will continue by train through the south rail network to the station (Paseo de Julio), tomorrow at 7 in the evening

"La Nacion", Friday March 12, 1880. The train that brought Francisco Moreno from the most southern lands arrived at Paseo de Julio station at half past nine last night. A crowd received him with all the warmest honors in recognition of Moreno's singular enterprise.

CHAPTER 6

TRANSITION STAGE



END OF AN ODYSSEY AND BEGINNING OF AN EPIC TIME

TRIP TO EUROPE DISTINCTIONS IN FRANCE

RETURN AND EXPLORATIONS

FOUNDATION OF LA PLATA MUSEUM nd of an Odyssey and Beginning of an Epic Time. This period in Moreno's life can be described as the end of an odyssey – his exploration travels – and the beginning of an epic time – the fulfillment of the three main objectives: the foundation of his Museum, the thorough survey of the Cordillera region and the solution to the boundary conflict with the Republic of Chile.

In 1880 he traveled to Europe where he stayed for a year; this enables him to visit well-known museums and to acquaint himself with aspects related to their organization.

When he returned to his country in 1882, he continued with his explorations in the provinces of Argentina in order to increase the collections of the Anthropological and Archeological Museum of the Province of Buenos Aires, where he worked as its Director. Particularly, he visited Andean regions in the provinces of Cuyo where the boundary determined by the treaty signed in 1881 could give rise to difficulties. These travels finished in 1884.



Paris, 1880.

Besides, in his capacity as member of the special commission in charge of the construction of public buildings for the new capital of the Province, he had the opportunity of beginning the first studies about the site for the future museum.

In his last personal exploration, i.e. the second expedition to Lake Nahuel Huapi, Moreno had to endure extremely difficult situations in which he risked his life more than once. In spite of this, he managed to fulfill many of his objectives.

He had left Buenos Aires at the beginning of October, 1879, and five months later, on March 11, 1880, he arrived at the central train station. He had to be carried on a stretcher because of his extreme weakness, high temperature and his wounded legs which did not allow him to walk. The crowd, who was waiting for him, received him warmly and this helped him feel better.

is Resignation as Chief of the Exploration Commission.

It took him more than two months in bed to heal his wounds and to recover his energy, a period in which he had to bear a very unpleasant situation. While the president of the Country, Dr Nicolas Avellaneda, congratulated him on his researches and promised further aid, the Minister of the Interior, Dr Zorrilla, not only disapproved of him but also asked him to resign the Exploration Commission of the Southern region on the grounds that he had not complied with the orders he had received.

We must make it clear that these instructions were never found nor was the long report sent by Moreno from Tecka informed in spite of the fact that a decree ordered its publication.

To put an end to such a delicate and difficult situation for the authorities, Moreno decided to tender his resignation due to health problems and submitted medical certificates to prove them. I decided to help Dr Zorrilla to sort out this difficult situation; but I previously made it clear that I had always behaved correctly. I justified my resignation without giving shameful details about the people who caused it, only mentioning my health condition.

On April 30, 1880, the Minister of the Interior announced the following resolution:

Provided the preceding resignation and taking into account that the serious illness which affects Mr. Francisco P. Moreno resulted from his great distresses in the last expedition to Patagonia, according to medical certificates submitted to this Ministry, and that he is therefore unable to continue the expedition the National Government entrusted him, also considering the documents presented by Mr. Moreno in which he mentioned that his objectives for the travel were several, among which there was the analysis and study of soils, grass, forests and mountains of Patagonia, as stated in the orders issued by the Agricultural Department and Immigration Commission, it is hereby decided:

To accept Moreno's resignation and to thank him for the rendered services, attaching his preliminary report in the Files of this Ministry.

God save you,

N. Avellaneda

B. Zorrilla



In Argentina. From 1880 to 1906, there are five successive presidential periods. It can be said that during this period, framed within a balanced world, the modern Argentina is born.

With institutional stability, a very good educational system and an enterprising middle class, Argentina manages to enter into the worldwide circuits of investment and production, becoming the most advanced country in South America. Some political domestic conflicts during these years cannot stop its ascending way.

Immigration continues; Buenos Aires has 400,000 inhabitants and fifty per cent are foreigners. Argentina has a



Hotel of immigrants. population of three million at that moment.

In the world. During this period, and until 1912, i.e. throughout three decades, there is peace in Europe. Therefore it is thought that a definite worldwide stability has been achieved. Unfortunately, this belief vanishes when the First World War begins in 1914.

Great Britain reaffirms its power when the Boers war is finished and, by means of its huge fleet, it increases its

Historical Background

overseas possessions. France also strengthens its economic power in Europe. After Bismarck's death in 1888, Germany, under Emperor Wilhelm II, begins a naval program to compete with Great Britain,

and this causes fear in Europe.

The United States begins to show its power after its naval forces defeat the



Wilhelm II.

Spanish fleet and they establish their control on Cuba Island first, including some time later Philippines and Puerto Rico.

During this period there are extraordinary scientific and technological advances. These discoveries take place in the fields of Physics, Chemistry, Medicine and Biology: electromagnetic waves, x-ray, radioactivity, quantum theory, relativity theory, electron theory, atom model, radium.



Museum of Natural History of London. Present photograph.

The medical certificates mentioned in this note, signed by the professionals Guillermo Rawson, Ignacio Pirovano and Carlos Lanus, reported a serious physical condition, symptoms of an incipient locomotive ataxia and the onset of brain anemia, illnesses that got worse with his last months of exhausting and difficult life. The report stated that, in order to recover his health, he had to avoid all kind of trouble and intellectual work and for, at least one year, he had to lead an "easy enjoyable life".

rip to Europe. Distinctions in France. But his iron will did not vanish. Overcoming the sad episode with the Minister of the Interior and after resting for almost three months, he decided to travel to Europe, *in search of new physical and moral strength to advance towards the fulfillment of my ideal.*

He stayed there for a year since his arrival in June, 1880. It is needless to say that during his stay he could not control his irrepressible energy and consequently he did not comply with the strict recommendations of his doctors. He thought that the voyage had had a soothing effect on his body and soul, and that he was ready to put into action the program designed during his trip. And he started to carry it out methodically.

He arrived in Paris and he applied for several courses at university. He attended particularly the Anthropology course given by Professor Pablo Broca, the same person who had encouraged him from his Revue d'Anthropologie and published one of Moreno's articles, in 1874.

At this University, Ernesto Quesada was one of his mates – who was studying law. He was the son of Dr Vicente Quesada, Minister of Government of the Province of Buenos Aires. For a better progress in his studies, Moreno did not reveal his identity. But one day, when he left

> a class together with other students, a caretaker approached him and asked on Professor Broca's behalf to go to his office.

> Professor Broca had realized that in his classes there was the man whom he had described in 1874 as "...a man full of youth, who cannot stop growing quickly and would be as valuable for the race studies of South America as it was thirty years ago the Morton Museum...". Moreno was pleasantly surprised by the joyful atmosphere and friendliness of that meeting.

> From that moment on, his purpose of being unknown disappeared. He began receiving social invitations, scientific societies offered him their platforms and specialized magazines asked for his collaboration.

When Professor Broca, who was a physician, examined him, he recommended moderating his activity because any excess

- he knew from his own experience - was dangerous for his health. Unfortunately, the professor did not follow his own advice and died a few months later.

He felt a deep grief over the loss of the master whom Moreno had greatly admired and respected.

In Europe, his area of work was not limited to Paris or to scientific studies, but it also included visits to French museums and to London where he used to go to the British Museum.

Although there is no detailed documentation of Moreno's actions during this period, it is clear that this "relaxing trip" was not only helpful to recover physical and moral strength as he had intended. He could also gain knowledge which was later very useful to draw up the project of the future museum building as well as to learn about aspects related with its organization.

In Paris, he received several distinctions: the Geographical Society joined him as member and gave him the Gold Medal. He was also awarded with the Crevaux Medal of the Commercial Geographical Society of Paris and by the French Academy.

In the edition of May 23, 1881, "La Nacion" newspaper published this news:

"Our outstanding compatriot, Dr Francisco P. Moreno, has been highly honored by the Geographic Society of Paris. In its session held on the eighteenth, the Society, the first in the world in its field, gave Dr Moreno a gold medal for his important and daring explorations."

gain in Buenos Aires. In June, 1881, he decided to go back to Buenos Aires where he arrived at the end of that month.

Settled in Buenos Aires, he continued with his personal studies until September 1884, when he was appointed Director of the newly-established La Plata Museum. During this period, he traveled to several provinces, he made a report, at the request of the national authorities, about the boundary problems with Chile, and he worked as a member of a special commission set up before the foundation of La Plata City.



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Historical Backgroad C

In Medicine and Biology: discovery of tuberculosis bacillus, anti-diphtheria serum, anti-syphilitic serum, Mendel's laws of Heredity, mutation theory, chromosomes, first analgesic.

In Technology: car with the first gasoline engine, Diesel engine, first airplane flight, first radio transmitter.

1880. General Julio A. Roca becomes president of the country (1880 – 1886).

In Buenos Aires, the First Pedagogical Congress of America is held and its conclusions are the basis for Law 1420 of Free Education.

The port of Buenos Aires is built and the first meat



British Museum. Present photograph



Louvre Museum. Present photograph.



Historical Background

processing plant begins operating in Zarate.

First voyage of the cooling cargo ship between Australia and London.

1881. A boundary agreement is signed between Argentina and Chile, known as 1881 Treaty, that establishes in its first article that "the frontier line between Argentina and Chile throughout its entire extension from North to South, is the Andes mountain range".

1882. La Plata City is founded and it becomes the new capital of the Province of Buenos Aires.

1883. The war of the Pacific among Bolivia, Chile and Peru finishes.

1884. La Plata Museum is founded and Moreno is appointed its Director. La Plata City has, then, 10,500 inhabitants.

The Berlin Conference aimed at the partition of Africa begins, a process that continues until 1905. **xplorations.** As regards the explorations, in his summary "Apuntes para una foja de servicios" [Preliminary notes for a service record], Moreno pointed out that in 1882 he began his trips to the Andean regions of the provinces of Cuyo and, particularly, to the Puna de Atacama; these were places where the drawing-up of boundaries was difficult.

"La Nacion" newspaper in its edition of July 3, 1883, published the following comment about one of his travels:

The explorer Francisco P. Moreno went back yesterday to the city of Mendoza after reaching the summit of Pelado Mountain, 3,500 m above sea level, dominating the Paramillo Chain... Unluckily, when Moreno was going down this Mountain the mule, which carried the collection and a photographic camera, fell and rolled down and his camera was completely destroyed; this means that Moreno will return to Pelado Mountain and therefore postpone his planned trip to Uspallata. The outstanding explorer and two laborers arrived at the mount summit in the afternoon on the second day, spending there the night and going down the following day at three in the afternoon. The minimum temperature at night was minus 8°C and the maximum 5° C.

From Calingasta, in March 1884, he sent a telegram to the governor of the Province of Buenos Aires, Dr Dardo Rocha:

I am in Calingasta. I have obtained great results from my exploration: a skeleton, mommies and other kind of important objects for the Museum of the Province under your command. I go on now to the Cordillera summit. By the first week of April, I will be there. With my best regards, your friend F. P. Moreno.

About the studies related to the boundary issue, Moreno commented in his Memoirs: ...in May, 1881, Dr Irigoyen, Minister of Foreign Affairs, asked me to draw up a map of the Patagonia and to write a report on the boundary treaty with Chile which had to be discussed in the Congress. This report was read, partly, in the sessions of July by Dr Irigoyen (a part of which he published later) and there I gave my opinion about boundaries with Chile, a criterion I maintained as Argentine expert.

In 1882, Moreno was appointed by Dardo Rocha, governor of the Province, member of a commission in charge of the construction of public buildings, among which there was the future La Plata Museum. In the foundational plan of the city, the Museum was placed in a privileged site, in its central axis.

It was only one year and a half later that the project of the Museum was under way, though Moreno suggested changing the central location and building it in Paseo del Bosque instead, because:

...building the Museum in the middle of the city park, which is one of its

main attractions, allows having ample space for the creation of a botanic garden and a zoo. This will make it possible, once built together with the Astronomical Observatory, the Agronomy and Veterinary colleges and the School of Arts and Skills... to have balsamic air for the lungs of the people living in La Plata as well as the light for their spirits.

oundation of La Plata Museum. The general drawings for the construction of the future museum were approved on September 17, 1884, and that day the foundation of La Plata Museum was decreed, appointing Moreno as Director of the new institution. Moreno had an



Dardo Rocha.

important decision-making role in the adoption of the schedule for the construction of the Museum to which the project of its building was adjusted and also in the conception leading its organization and then in its execution as well.

According to the above mentioned, it can be noticed that during this short period in Moreno's life, 1880-1884, he did not only continue with his actions but he also achieved his important goals. During his "holidays" in Europe, he had the opportunity of deepening his knowledge related to the conception of the future building of the Museum and the organization of the exhibitions. As regards his explorations carried out in this period though not very long, they were useful for the geographic study in the Andean regions in which there were doubts about boundary fixation." And, finally, as member of the commission in charge of the construction of buildings in La Plata City, before being Director of the Museum, he participated actively in issues related with its building.

CHAPTER 7

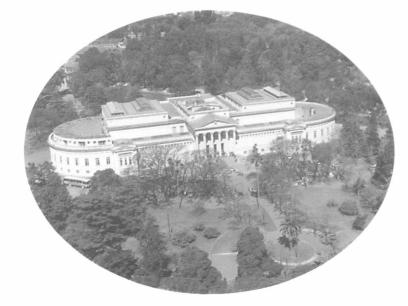
BRIGHT STAGE

LA PLATA MUSEUM: ITS FOUNDATION, MORENO AS DIRECTOR, CONSTRUCTION OF THE BUILDING, THE FIRST FIVE YEARS, CONSOLIDATION

THE MUSEUM EXPLORATIONS

THE BOUNDARY DISPUTE WITH CHILE: BACKGROUND, MORENO AS ARGENTINE EXPERT.

MARIA ANA VARELA DE MORENO





etween 1880 and 1910, five presidential periods followed and three of them were completed by their vicepresidents due to the resignation or death of the president. During this period two civil revolutions (1890 and 1893), a deep economic crisis in 1890 and boundary issues with Chile, which could lead to a war conflict, were causes of disturbance that slowed down the normal development of activities.

However, the capacity for action and his perseverance allowed Moreno to fulfill and complete orderly all his aimed goals. They were linked and assembled in such a way that each one was the support for the following one.

The museum, born from his interest in collections, enriched its patrimony by means of the explorations. These, and his love for nature,



led him know the Patagonia in order to integrate it to the country. And, at the same time, the geographic and scientific studies he carried out would constitute a solid basis for the determination of the natural boundaries in the Cordillera region between our country and Chile.

La Plata Museum

Central Hall of La Plata Museum. Upper Floor (1890). Director. Construction of the Building. The present La Plata Museum, according to Moreno, has its origin in 1867, ...the day I gathered the little stones at the back of Palermo that years later would be the basis for La Plata Museum. For several years it was established in the watchtower of his family house – Bartolome Mitre and Uruguay. In December 1872, it was moved to the country house in Parque de los Patricios, in a very suitable building, a present from his father for his twentieth birthday. By that time, it was named Moreno Museum, and he went on increasing his collections very fast.

In 1877, Moreno donated his museum to the government of the Province of Buenos Aires, and it became public heritage on October 17, 1877, under the name of Anthropological and Archeological Museum, and Moreno was appointed its Director. In 1880 the city of Buenos Aires was federalized and on November 19, 1882, La



Foundation of La Plata City.

Plata City was founded, as the Capital of the Province; consequently the institutions and offices of the Province which were in Buenos Aires were moved to the new Capital.

It was only in April, 1884, that the authorities of the Province could settle in the new capital and in July the collections of the Anthropological and Archeological Museum of Buenos Aires were carried to La Plata and placed temporarily in several facilities, mainly on the first floor of the Banco Hipotecario [Mortgage Bank] that, in 1906, was the headquarters for the authorities of La Plata National University.

On September 17, 1884, by decree of the governor of the Province of Buenos Aires, Carlos D'Amico, La Plata Museum was founded and then, the Anthropological and Archeological Museum was incorporated. Moreno was appointed Director of the new institution.

The construction of the city that only existed in the drawings had to be begin. In 1882, Dr Dardo Rocha, governor of the Province of Buenos Aires, decided that the Engineering Department had to start the execution of the drawings of the new capital. Moreno who was at that time Director of the Anthropological and Archeological Museum of the Province was included in a commission in charge of controlling the building of the Museum, Library and General Archive.

As already mentioned, according to the project carried out by the Engineering Department, the Museum had a central location, and it was Moreno who suggested to set





1885. The railway reaches 6,000 km.

1886. Miguel Juarez Celman is elected president of Argentina.

The telephonic connection between La Plata and Buenos Aires is established. The first international cattle show is held in Buenos Aires.

1888. La Plata Museum is opened. A deep economic crisis begins this year and finishes in 1890.

The population is discontent with the economic situation and this dissatisfaction is made known with a political revolution that, though it fails, causes the resignation of president Juarez Celman in 1890. Carlos Pellegrini becomes president until 1892, who with great energy, manages to



Building of Banco Hipotecario, present building of La Plata National University.

Historical Background

overcome the crisis during this period.

Slavery is abolished in Brazil.

1889. The Eiffel Tower is built in Paris.

1890. The printing press, financed by Moreno, is

Eiffel Tower.

installed in La Plata Museum.

1891. The construction of the Tran Siberian railway starts and it is completed in July, 1904.

1892. Luis Saenz Peña is elected president of Argentina (1892 – 1898).

Argentina and Chile sign the Additional Protocol of 1881 Treaty.

The fist service of electric tram of the country is installed in La Plata.

1895. Jose Evaristo Uriburu becomes president due to Luis Saenz Peña's resignation.

Argentina has four million inhabitants those days, seven hundred thousand of which live in the city of Buenos Aires.

1898. General Julio A. Roca becomes president for the second time.

aside that idea and to place it in Paseo del Bosque.

In 1884, the architect Henrik G. A. Åberg began the construction of the building. Born in Sweden, he had settled in the country in 1869 when he was twenty-eight years old. His professional activity in Argentina, where he validated his degree, was very intensive. As he had

Carl L. W. Heynemann.

decided to return to Europe in 1896, he began working with the German Engineer Carl L. W. Heynemann to



Henrik G. A. Åberg.

carry out together such an important task. Therefore, when he left, Heynemann would be present during the construction.

The construction of the building started in October 1884; in 1887 some sections were apt for the public and it was officially opened on November 19, 1888. It was not an easy task to build it in the middle of an almost deserted plain

area and with very hard difficulties, particularly economic problems.

Soon after beginning the foundations of the Museum, the lack of money brought the works to a standstill. Moreno sold some country houses he had and with this money he could afford the costs.

In an article about the Museum published in "La Nacion" newspaper, it is stated: "This Scientific Institution Belongs Exclusively to Moreno".

Moreno immediately sent a letter to Governor D'Amico in which he said: This sentence is mistaken. I owe to you the realization of the museum. In April 1884, you offered me all your support... and this commitment has been complied with from the very beginning...During your administration, I always had resources... and, if at any time, I used mine, it was to work before schedule... The Museum could not have been built without your constant help...

According to his express wish, this letter dated April 22, 1887, was published in "La Nacion".



Original project.

The building was not in agreement with the original drawing prepared and signed by Åberg and Heynemann, which consisted of a set of three buildings, out of which only one, the Museum, was completed. The other two sections were never built. Its style, according to the fashion of the time in which it was built, is Greco-Roman. Its size (135m long by 70m deep), the portico colonnade, the pillars of the walls give the impression of a temple and a fortress.

The museum was a well-considered project by Moreno – and on a large scale – during his trip to Europe in 1881. He visited and studied the best museums of the time: the British Natural History Museum, the one in Paris, the Louvre and the Lyon. He took lots of advice from Professor William Flower, Director of the Department of Natural History of the British Museum: ... I have admired in that Museum its excellent conditions of organization and I was astonished at the exquisite preparation of the pieces. When I designed the plans of this place, I had always in mind what I had seen there.

Charles Darwin's theory of evolution was present in the conception of the Museum. Moreno said proudly: ...La Plata Museum will be the first one to be established according to biological evolution theories, being ahead in this sense ...of the Old World wishes put forward by relevant wise men, who will be surprised to learn that in a recently founded city, ...a museum has been created similar to the one they would desire a year later, as the latest expression of science.

he First Five Years of the Museum. The work in its first five years, examined by Moreno in his report of January 1890 called "*El Museo de La Plata. Rápida ojeada sobre su fundación y desarrollo*" [La Plata Museum. A brief overview of its foundation and development], was a real surprise.

As regards this topic, Teruggi said in his book (1988) "Museo de La Plata - 1888-1988 – Una centuria de honra" [La Plata Museum. -1888-1988 - A hundred years of honor]: "When La Plata Museum was founded, it was an expression of optimism about the future of the country. Due to its evolution, it became a national pride. In 1890, it was already famous and several scientific and extra scientific sectors showered it with praise and positive comments. The foreign scientists that visited it were astonished; the public that moved around its large rooms admired it".

At the beginning of this report, Moreno states: All the plan conceived for our Museum is included in the speech about "the Museums of Natural History" given by Professor Flower in the British Natural History Museum, of which he was the Director. When comparing this result with what a



The United States adds to his territory Philippines, Puerto Rico and other islands, thus acquiring a position of control in Latin America.

This year, General Roca has a meeting with the Chilean President, Federico Errazuriz, in the Strait of Magellan.

1901. Marconi carries out the first wireless telegraphic transmission.



Marconi.

1902. King Edward VII announces his arbitration decision, giving Argentina 42,000 km² of its territory, claimed by Chile.

1903. The first electric tram starts operating in the city of Buenos Aires, in La Boca neighborhood.

The construction of the first underground begins.



Electric tramway



Building of the recently opened Museum.

Historical Background

The meteorological office is created.

The railway network reaches 20,000 km.

The compulsory military service is established.

1904. Manuel Quintana becomes president of the Nation.

The first traffic regulation is approved in Buenos Aires. Speed limit in the urban area is of 14 km per hour.

1906. La Plata Museum joins the new La Plata National University. Moreno resigns as its Director.

Figueroa Alcorta becomes

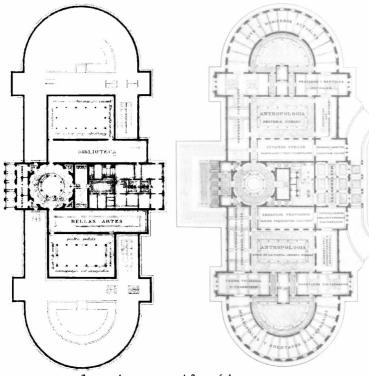
museum, according to Professor Flower, should be, it is clear that indeed the task has just begun.

Problems in the organization due to lack of economic support, scarce materials which needed to be increased daily, looking for them in difficult and distant regions, and the small number of people working there conspired against its development. Meanwhile the Director, who in this situation replaces the curator, has cleaned the floors more than once and at the same time, is looking for the necessary means to get on with his enterprise which is about to sink.

This thought finishes as follows: I think that I have not wasted my time and that La Plata Museum can be considered as already born. What is needed now is to give it enough strength to grow.

For a better illustration and understanding of the task carried out during the first five years, the following quotations have been taken from that report:

Five years have passed since the foundation of the Museum. Its building has been completed in its interior and I have placed in it our main collections. In order to obtain this result I have worked endlessly, devoting all my time and strength, without hesitating in such a difficult task as it is to replace the Museum of Buenos Aires. And I must confess I could not have carried it out the way I believe I did it, without the efficient cooperation of the authorities



First floor and main ground floor of the Museum (1890).

and the intelligent and enthusiast work, but for some unfortunate exceptions, of the few people under me, over ten persons who did not keep strictly to the compulsory working hours. They have generally worked from dawn to dusk, for months until almost midnight, without any extra payment but for their food. In the museum all the devices for paleontological and Compared Anatomy pieces have been built, which are not inferior to the ones used in the big European museums.

At the same time, I have been obliged to assist personally all the sections, still under way, to put in order the pieces gathered in a hurry while looking for the resources to get them and to prepare in the short period of three years collections that could replace, in general, those constituting the National Museum of Buenos Aires. Unfortunately, when I conceived this building I could not give it the proportions it should have had, as even the present ones were believed to be over-dimensioned. However, this fact is not an obstacle to consider it a perfect type of museum. I am sure that soon it will arrive the day in which the importance of its collections will need its rebuilding by widening its galleries and completing my plan.

It can be inferred from the reading of the following quotations that Moreno was interested in the behavior of the visitors.

I have observed that many visitors return frequently and that there are some that visit it every Sunday, spending hours in the rooms...For the uncultured population, the museum has become a nice meeting place; with respect they observe the pieces, they look at a hen with its chicks, a cat catching a partridge, and they forget the tavern...

I have seen groups passing through our garden and stopping in front of a great petrified trunk and, then going back, entering and spending long time in the Museum, speculating about what they had in front, but always pointing out something that could be possible. Thus, slowly, by

neans of the things learnt with the eyes, the spirit of people is cultivated and this is one of the most profitable tasks of this type of institutions.

When thinking about arising the visitors' interest, he said:

We cannot forget that everything has a childhood, that childish curiosity in men has not vanished but it is asleep and it awakes when there is something unknown or unsuspected. The first impression, if this is not imposed by bright colors or beautiful shapes, is pale and many times it is abandoned; only the contrast arouses them, attracts reflection... they try to understand what they are looking at and, little by little, slowly, the spirit is enlightened... and then, a fragment of bone or an irregular stone... reveals undreamt phenomena which feed the human fantasy, mother of all knowledge.

The Museum has been visited by 50,000 people in a year and I have noticed the gradual progress of the visitors... Those who know are always the fewest and so we have to think of those who do not know. It is true, as the well-known critic John Ruskin says, that a museum is not a place to have a break time but to learn; however this is good for cases in which there are schools with small collections and other institutions



president due to Quintana's death.

There is an earthquake in San Francisco, USA, which destroys the city almost completely and kills 500 people.



Room of Anatorny (1890).



Room of Anthropology (1890).

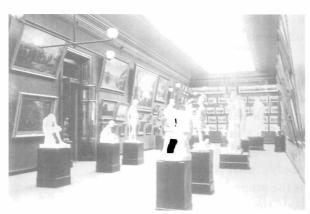
where the first elementary lessons are taught... Here we do not have these institutions or they are very scarce in number and it has been necessary to join everything in only one place to arise the interest in the museum.

This brief overview of the foundation and development of La Plata Museum in its fist five years has several chapters, described throughout thirty pages. The first part includes background information previous to its foundation, Moreno's observations about the effects of its opening and the behavior of the visitors.

The report is finished with details about the contents of nineteen rooms, seventeen on the first floor and two on the second. These descriptions are really astonishing and moreover when noticing that such an exhibition was assembled in only five years, under Moreno's direction and the cooperation of few people, without having a team specialized in exhibitions.

Moreno conceived science as closely linked with art; this explains why ... the building is crowned by a fine arts room, where there are some good canvas and reproductions of sculptures, which gave glory to the ancient world...

He concludes this report with the part of the Museum that is not seen, the one that is below the galleries.



Room of Fine Arts (1890).

The workshops are there: ... Without them, it would have been impossible to carry out the amount of work done in the short period between from 1884 to 1890. As soon as the construction of a room was completed, a workshop was built below it; in this way, the collections were organized while the building was being built. How to assemble a glyptodont shell, or a whale skeleton, in distant smithies where it was impossible to transport the pieces?

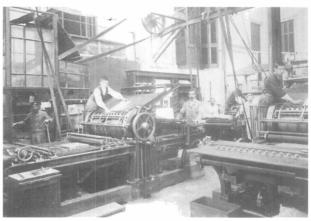
Apart from having saved a lot of money, ...we have been able to assemble great pieces in one tenth of the necessary time... Today, after five years of work, these workshops are completely established...

We dare say that it would be strange to find an institution with the same elements in some of its premises; however, we still need some other facilities which will be built soon.

It is true that we do not yet have research laboratories but I have repeated it some times that it is a very short time since the foundation of the museum to ask for more...

La Plata Museum could not render the services it should without a printing workshop. This is already installed... This Magazine is printed there as well as the Museum Annals... Moreno states the following when finishing his report: I have briefly drafted the work which has been done in five years and the one we, as Museum workers, plan to perform. How much easier this task would be and how many more services we would render to the country and to sciences if men of good joined us in our daily task, eager to help us spreading what we have achieved so far and what we will go on doing!

In his visits to the Museum in 1889, the prominent American scientist Henry Ward expressed his impression:



Museum Printing Room (1890).

"No museum in Europe or in the United

States can be compared to the one of La Plata in fossil mammals. I was so surprised at everything I looked there that in my first visit it seemed to me that I was in a dream enjoying the pleasure of fantastic visions. Only after many visits I became convinced that in fact all that was a reality."

he Museum between 1890 and 1906. Moreno was the Director of La Plata Museum between 1884 and 1906, the date of his resignation. For seven years of this stage, i.e. 1896-1903, he simultaneously worked as Argentine Expert.

The already mentioned first five years were mainly of internal organization; the rest of the period he was in charge, 1890-1906, was aimed at strengthening the museum in all respects. In the scientific aspect, Teruggi said (1988): "Moreno, the founder, had very clear ideas as regards the institution. In 1890 he stated that La Plata Museum should be an exhibition museum but also a place for study... that it was necessary to move from the period of bazaar museums (he properly gave this name to museums that only show curiosities and oddities) to one of research and education museums".

In order to accomplish these objectives, during this period he organized several explorations in charge of the so called "traveler-naturalists", whose mission was to go through several areas of the country to collect geological, biological and anthropological pieces. Besides, he planned scientific expeditions to investigate specific problems and also to gather the relevant materials. "Thus every year hundreds of pieces arrived at the Museum and enlarged the respective collections." (Teruggi, 1988.)

On the other hand, since the museum foundation, Moreno said that he would put this institution at the service of the great national interests. It is necessary, he said, *to make all the Argentine territory known in its* many facets: in the first place as economic power, and in the regions that limit with other countries, everything that can contribute to maintain the integrity of the territory.

Therefore, together with the expeditions organized with scientific purposes, there were others which were useful to obtain data and geographic knowledge of hardly-known regions of the national territory. In order to plan and coordinate these activities, he created the Section of National Explorations.

In the research field, the Museum became well-known in our country and abroad. Throughout the last twenty years, Moreno was surrounded by an extraordinary team of prominent technicians and scientists. The group of Argentine specialists, composed of the paleontologist Florentino Ameghino, the anthropologists Samuel Lafone Quevedo and Juan B. Ambrosetti, the traveler naturalists, Carlos Ameghino, Santiago Pozzi and Clemente Onelli, was enlarged by joining foreign scientists. The following research departments were created: Anthropology, Paleontology, Mineralogy and Geology, Zoology, Botanic and Entomology, which were in charge of relevant researchers such as Lehmann-Nitsche, Ten Katc, Santiago Roth, Alcides Mercerat, Carlos Burkhardt, Fernando Lahille,



La Plata Museum (1900). The bust that can be seen, French explorer Jules Trevaux, stands on a petrified trunk.

Carlos Spegazzini, Carlos Bruch, among others.

The exploration trips of La Plata Museum, carried out under Moreno's direction, were so meaningful and important that deserve a separate title.

he Explorations of the Museum. In "Apuntes para una foja de servicio", Moreno said: The Museum, apart from its specific mission as a purely scientific institution, should serve to a truly national cause: to a better knowledge of

the physical geography of the country and to the richness of its soil.

Faithful to this concept, during the period he was in charge, explorations were carried out in several regions of the country, in which technicians and specialists participated under his direction, based on the following explanations:

It is necessary that we, Argentine people, react as soon as possible against our lack of interest in the exploitation of the profitable earth's riches of the Republic and of its natural resources.

We have been neglectful of our heritage, not to say wasteful.

We always lack a solid basis, i.e. the complete knowledge of the geography, geology and meteorology, fauna and flora. And those who try hard to obtain this knowledge as soon as possible have to fight against people's indifference and the interest of some who think that the ignorance of the majority produces easy profits, even though at the expense of the national community as a whole...

Knowing the physical geography of the Andean regions and their nearby areas, big mistakes could be corrected, many of which have been considered as unquestionable truths in the conception of boundary lines.

On these grounds, an internal exploration of the Argentine territory, especially of its Andean region began in 1890. The acquired geographical and scientific knowledge allowed discovering many of the earth's riches, besides giving indisputable arguments for the natural determination of the boundary line with the Republic of Chile.

he First Explorations. Moreno described them as follows: In 1893 the National Government decided to give help to facilitate the works carried out by the Museum to study the Argentine soil... A new era began for the museum this year... and its collaborators worked more eagerly than ever to fulfill the developed comprehensive program... Already in 1887, believing that little attention was being paid to the geographical study of the Andean Patagonic region, essential as a previous research so that the National Government could solve the way of putting into practice the boundary delimitation agreed in 1881, I sent to the South the first expedition of La Plata Museum.

Between 1893 and 1895, we who formed the Museum staff traveled from the freezing cold regions of the Puna, in our border with Bolivia to San Rafael in the Province of Mendoza, studying the geography, geology and mineralogy, etc., in the high peaks and in the vast plains, and taking for the first time the data related to the exact features of the Andean orography throughout such a large expanse almost unknown so far. We regretted not having carried out these studies before since they could have avoided the several difficulties in the layout of international boundaries.

The results of these explorations confirmed – as Moreno sustained – the real Argentine-Chilean boundaries, an issue that worried him very much since he was very young. In his *"Apuntes para una foja de servicios"*, he said:

In July, 1876 (Moreno was then 24 years old) after a short study trip

to the provinces of Santiago del Estero and Catamarca, I obtained from the Minister of Foreign Affairs just a few financial resources to solve the real geographic situation of the Andes Cordillera in the Southern extreme of the continent, and together with this, to analyze if the Minister of Chile, Diego Barrios Arana, was right when he asserted that the Cordillera instead of finishing to the west of Brunswick peninsula, as I supposed, extended its branches to Cape Virgenes, in the eastern mouth of the Strait of Magellan. This meant that all the strait was within and to west of the Cordillera and, therefore, it belonged to Chile throughout its area. In this expedition, I arrived as far as the sources of the Santa Cruz river, I sailed for the first time in Lake Argentino, which I gave its name, I recognized Lake Viedma, I discovered Lake San Martin; I could see myself that the Cordillera runs from north to south towards the west of Brunswick peninsula (and therefore of Punta Arenas); that there is no branch finishing in Cape Virgenes, as Mr. Barros Arana supposed, and that the isthmus that links the peninsula with the Continent, instead of being a chain of mountains, as shown in many geographical maps, is hardly above sea level.

Monumental Exploration: January – June, 1896. After the above-mentioned expeditions, Moreno devoted his time to organizing a wide-range exploration with the participation of technicians and scientists of the Museum. In January 1896, when he thought that everything was ready to set off, he began the expedition which would last six months, until June.

The program I had developed included the geographical and geological survey... of the area close to the Andes and of the east area located between San Rafael (Mendoza) and Lake Buenos Aires (Santa Cruz). This was a very long task but I thought to carry it out successfully by means of the work distribution among my collaborators.

With competent staff (more than twenty) from the topographical and geological departments of La Plata Museum, the work began at the beginning of January, 1896, from the starting points. It was impossible to have done it before due to the difficulties, unfortunately always present among us, when the necessary elements do not depend directly on those leading this kind of operations but on long and slow administrative procedures.

The works assigned to the several commissions were carefully planned, and also, given with precise instructions to all the members of La Plata Museum exploration groups. The following paragraphs related to the aims of the planned explorations have been quoted:

Following the plan developed by this Museum, the purpose is to make known the whole Argentine territory in its many facets: in the first place as economic power and, in the regions that limit with other countries, everything that can contribute to maintain the integrity of the Argentine territory... The

Museum will contribute to know thoroughly a neglected area up to now which may become one of the most important of the Republic.

We must bear in mind that until a perfect balance is reached between production and population throughout the whole country, it will not achieve the economic and political power that it should have in a quite near future.



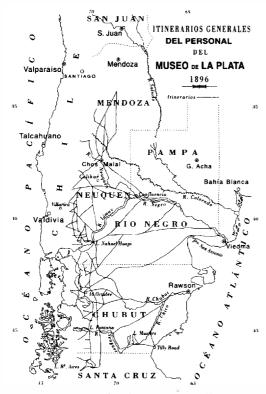
The Republic cannot remain quiet or pleased with its fame of a rich country, a somewhat well-deserved reputation. Those who follow the development of South American nations notice that some part of the progress of Argentina is fictitious. They feel that it is only developing in the areas nearby the ports, which can be considered as pieces of Europe, and that, with just a few exceptions, its interior is neglected. Thus the country is becoming more unbalanced... as a Nation, as they try to make it richer and richer and this results in making the social and political cohesion difficult. Consumption centers are not established near production centers; the trend is in the littoral and consequently the population remains almost stable and the immigrant does not arrive because the sad-looking view of the interior regions holds no attraction to him. The lack of easy means of transport and of frequent and cheap communication with the populated centers discourages works with long-term profits and the natural resources that can be found everywhere are not exploited.

All this asks for a thorough study of these regions to be explored. The expeditionary men are recommended to bear always in mind these purposes while carrying out their researches since they are the leading aims the Museum has to order the survey of these Andean territories. This study, with a wide schedule, will be very useful and the initiative of the Museum will be wellconsidered by those who are interested in the development of the country.

Riccardi (1989) in his book "Las ideas y la obra de Francisco Pascasio Moreno" [Ideas and works of Francisco Pascasio Moreno], summarizes the content and importance of this extraordinary exploration as follows:

"Moreno directed the activities of the institution towards the defense of Argentine interests and, with the efficient advice of engineer Enrique Delachaux, he fulfilled a task that nowadays greatly surprises anyone who has visited the boundary region of the Cordillera between Chile and Argentina."

"It is worth mentioning that the expedition between January and June in 1896 was useful for the survey of an area of 170,000 km² between San Rafael and Lake Buenos Aires, with a view to make a scale map 1:400,000. They traveled 7,155 km on horseback; 3 longitudes, 328 latitudes and 201 azimuths were determined; 360 stations were measured with theodolite and 180 with prismatic compass; 1,072 barometric



Itinerary of explorations in 1896.



stations and 271 trigonometric stations with elevations were observed; 960 photographs and 6,250 samples of rocks and fossils were taken; and the first preliminary map of Lake Nahuel Huapi and of 16 de Octubre valley was drafted."

"Another Moreno's proposal arising from the expedition was the construction of railway networks linking the Atlantic with the Cordillera, that years later served as basis for the bill Dr Ezequiel Ramos Mejia introduced to the National Congress and Moreno defended in his capacity as deputy."

"It is important to point out that all the works of that time from La Plata Museum were the result of the initiative and planning of Moreno in search of his own established objectives. That is, in his own words, to make the Argentine territory known in its many facets: in the first place as economic power and in the regions that limit with other countries, everything that can contribute to maintain the integrity of the Argentine territory."

"For this purpose the explorations and researches were carried out in a true team work, with precise instructions and as quickly as possible

in relation to the available resources. Fieldwork was performed according to the orders written by Moreno himself who,

in most of the cases, supervised it personally, making when he considered it convenient all the necessary changes for a better achievement of the established objectives. Nothing was

improvised; itineraries and alternative tasks were planned and the disobedience to the received instructions was punished as proved by Carlos Ameghino's exoneration."

"The material collected in the field was studied immediately by the Museum staff or by specialists of other institutions and the results of the works were published almost immediately."

"In this way, in just 20 years a virtually unexplored region of our country of hundred thousands square kilometers was thoroughly surveyed. And the progress in the knowledge of these vast regions during this period can be considered as one of the most relevant advances in the history of Natural Sciences in the country. Moreno's integrating conception interwove the researches of La Plata Museum with the

determination of its economic potential and the affirmation of its territorial and political sovereignty."

After finishing this exploration, Moreno returned to Buenos Aires and, immediately, he started to prepare a book named "Apuntes preliminares sobre una excursion a Neuquen, Rio Negro, Chubut y Santa Cruz" [Preliminary notes about an expedition to Neuquen, Rio Negro, Chubut and Santa Cruz] that would include the results of the trip observations... This book

was distributed after my appointment as Expert, in September 1896, and contributed efficiently to put the boundary issue in its right place.

At the beginning of these notes, there is a very short chapter called *"Ojeada retrospectiva"* [Retrospective view] in which Moreno remembers:

... More than twenty years have passed since, with my personal knowledge of the area, I began insisting on the great importance of these territories and in the promissory future they have as base for new and rich provinces; I confess that it is very pleasant for me to remember today my insistence on the study of these lands to make use of them as soon as possible. I have always thought that the Patagonia population will double our value as nation when balancing the progress factors and therefore making it powerful in a near future.

The fact of returning to places visited many years before gives rise to comparisons of two periods, reflections and personal opinions about the events that had occurred during a period of twenty years. Moreno's comments, apart from being very interesting, were crucial to know and understand the reasons that caused – and still cause – such a remarkable delay in the development of the Patagonia.

These are some paragraphs:

On the beautiful land of Neuquen, so full of promises :

It is a great pity that the imprudent way in which the public land has been distributed has not obliged the immediate colonization. The concessions of big areas will always be a discredit for the Argentine Government and an obstacle in the progress of the country. If this distribution of the public land has been made in the southern territories previously knowing them, its current population would be fifty times bigger and that region would have become a rich and crowded Argentine province. But with ranches of thirty two leagues each that only need one man per league to look after cattle, I am afraid this region will not develop quickly.

Either the land belongs to a lucky man who does not always hold good title to it, if not taken from the Treasury by surprise or due to the indifference



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FRANCISCO P. MORENO

on the Annual Common

of those whose obligation is to see to the compliance with the law ruling its disposal, or it belongs to the Treasury which does not ensure as it should, that the settlers stay there, giving or selling them the plot of land they can cultivate.

Norquin was a sad example, with pastures very similar to the pampa close to Tandil, in the province of Buenos Aires, and all the neighboring are hills are green. Today buildings in ruins, beautiful barracks without doors, traces of a powerful campsite which should still remain but always the same national defect everywhere: sloth and ignorance about the value of the land to the detriment of public funds. All those constructions that are nothing but ruins now must have cost hundreds of thousands of pesos; they should have served as solid base for a production center provided the soil conditions, the good property of lands in the surrounding areas and the proximity to Chile, linked by with easy paths.

He reflects on the Copahue region as follows: ... If a similar situation had taken place in the United States, cities would have already been built, the valley would have been crossed by trains and the near thermal springs of Copahue would have been internationally famous... but even the thermal waters are already private property by concession granted by the Nation.

Further on we will find the place destined to the Agricultural and Pastoral Colony "Sargento Cabral", which is aimed at rewarding the soldier who wants to become a shepherd or farmer once his age and years of service to the country oblige him to retire. There is not a profitable square meter there, not even for the goats; instead, all the good lands surrounding the "colony" have an owner.

It is necessary to reformulate our colonization laws... now that we know that not all the Argentine public land is plain, but that we have very varied territories with different physical features that will allow the variety of industries that will constitute our main wealth, it is necessary to encourage the rational use of the land and its natural resources.

About Junin de los Andes:

The town has 500 inhabitants and its built blocks surround the fort already in ruins; but as usual, those daring dwellers, who deserve to be helped by the Nation, were all intruders. I calculated that afternoon that the visible capital of the shops exceeded 200,000 pesos; there are buildings which cost 15,000 pesos; and all this depends on the good or bad will of the lucky proprietor who placed there a grant of thirty two leagues, as a result of one of those inconceivable decisions of our government men that are always a consequence of the indifference of the others. Portions of land that the landowners of Junin bought for less than one peso the hectare, have already been sold in more than four hundred pesos...

When he referred to the Caleufu valley where he was prisoner in

Shaihueque's village and escaped on February 11, 1880, he said:

These are nice memories when the comparison between the past and the present shows a positive result for the country. However, I must confess, I



Fort in Junin de los Andes. Photograph taken by Moreno (1806).

expected to find a greater development in these places; but, how to achieve it if the land between Junin de los Andes and Caleufu has only two landowners and the population is composed of less than one man every 100 km?

In the nearby areas of Lake Nahuel Huapi, in the place today known as Cholila, Moreno remembered when he was about to die as a victim of a poisoning attempt in Utrac's village. These are his words:

The little forest of this sad campsite had been burnt and the huts had disappeared together with their inhabitants, spread everywhere. Poor Indians, who never hurt anybody and who did not commit any crime but to have been born Indians!

In the hard war against the Indians, many injustices took place and, according to my knowledge about what happened then, I declare that there were no reasons at all to kill the Indians that lived to the south of Lake Nahuel Huapi; moreover I dare say that if they had proceeded correctly, these Indians would have been of good help for the exploitation of the Patagonia, as is the case of the rest of the wandering Indians that remain in those tribes, moved out daily by the people who give "certificates" as awards for their extermination. There were more people in the Indian villages subjected to caciques Inacayal and Foyel than the ones living today in the Andean region of Chubut, in spite of the vast areas requested and given for colonization.

About the plains of Esquel:

There is not a meter of fruitless land there; the grass covers everything and only in small prominent places formed by the agglutination of glacier

detritus, groups of woody bushes can be seen which will give plenty of fuel to the future settlers. We found large amounts of cattle, thousands of heads, belonging to the mentioned English company (he refers to the English Company of Southern Lands) which has a very few Indians to tend these thousands of animals when they went down from the west plains to look for shelter in the prairies close to the lagoon, but we did



Esquel and its exhuberant fertility. Present photograph.

not see a single man. The exploitation of such lands in those conditions is rare since it will not favor the industrial population.

When visiting Esquel Valley, through the beautiful gorge inhabited by settlers of 10 de Octubre, of an exuberant fertility, he writes:

When I came back from my trips to those regions in 1880 and I made public their fertility, nobody believed what I stated: it was said that Patagonia was synonym of barrenness and who would listen to the enthusiastic accounts of travelers claiming just the opposite. But the settlement of the colony is the best proof of the goodness of the land and the fruits that it gives when it is



The Fta-Leufu river in Valley 10 de Octubre. Photograph taken by Moreno (1890).

worked industriously and with perseverance. The humble cottages are comfortable and if the settlers that arrived and settled there since 1888 were granted the ownership of the land they lived in, as promised but never complied with so far, Colonia 10 de Octubre would surely be today the most important of the Patagonia; but, unfortunately they stumble several times in their attempts, as the lands surrounding the valley have already been "allocated" from Buenos Aires, and the complaints I hear about the advances of new owners fill me with sorrow. How will we develop the population

in Patagonia if an excellent initiative is followed by rules which destroy it?

I have received more than one request from those poor settlers to try to avoid the reduction of the colony area, but what to do when their far-away voices are unheard and the policies are so much against the country interests.

The Boundary Dispute with Chile

he differences aroused by the demarcation of the frontier line between our country and the Republic of Chile had caused throughout more than fifty years several incidents between both countries. Some of them were so important that gave rise to possible armed conflicts. This happened from 1894 till 1896 when, due to several problems during the set of boundary milestones, Argentina and Chile were prepared for war.

It was then that Moreno, in 1896, when he returned from the exploration with scientists and technicians of La Plata Museum, decided to accept the post of Argentine Expert that the President of the Nation had offered him, convinced that his services could be useful for the country.

And that was true. His wide knowledge of the area in dispute, his perseverance and capacity for action allowed him to be successful in such a difficult task. In addition to his already known qualities, he added an unusual diplomatic ability shown at the right moments in delicate situations that threatened the intended agreements.

About his action, the opinion of colonel Thomas Holdich, Head of the Arbitration Committee, could not be more categorical, who, in a letter addressed to Moreno in August 1902, said: "I have repeatedly stated that everything the Argentine Government obtained to the west of the division of continental waters will be owed, exclusively, to you."

istorical Background. The first historical events related to the boundary issue between our country and Chile date back to the first half of the nineteenth century and they are in connection to the Strait of Magellan. In 1842, when the Chilean Navy took possession of the strait and its territory, the Argentine government, presided then hy Juan Manuel de Rosas, lodged a complaint but the Chilean Foreign Affairs Office overruled this petition stating that the territory belonged to Chile based on the principle uti possidetis (right ensuring that territory remains with its possessor at the end of a conflict). The conflict remained unsolved and, some years later, the Argentine government settled in Parana and, presided by Urguiza (1852), signed the first boundary treaty with Chile, without mentioning the issue originated in 1842 about the Strait of Magellan. Four years later, on January 31, 1856, when Urquiza was the president of the Argentine Confederation made up of 13 provinces (Buenos Aires had come apart), a treaty was signed by means of which a provisional agreement was reached.

The Law of this agreement was put into force on October 1, 1856, and its article 4 established that both contracting parties agree that the borders of their own countries are the ones they possessed when they withdrew from the Spanish domination (1810). It added that if differences appeared, they would be solved peacefully and provided that there was no mutual complete agreement, the issue would be settled by the arbitration of a friendly nation.

The treaty was interpreted in two different ways; when Argentina agreed that its borders were the ones accepted in 1810, it meant that the boundary line would be established in the snowed Cordillera; Chile, instead, considered that the demarcation was a job for statesmen specialized in research and interpretation of archives, rather than a task for geographers.

This was the situation in 1881, with never-ending discussions and various interpretations that delayed the problem without finding a solution. The Argentine government, presided by General Julio A. Roca, concerned and tired of such a controversy, decided then to ask for the advice of the only man capable of solving this problem since he knew better than



Poncho worn by Moreno when acting as Expert.

anybody else the regions in conflict: Mr. Francisco P. Moreno. He agreed to prepare a map of the Patagonia, to study the background and documents related to this issue and, in particular, everything about the hydrographic problem. The long report with many maps and sketches he prepared was submitted to Minister Bernardo de Irigoyen.

As a result of the deliberations between the plenipotentiary ministers appointed by both countries, on July 23, 1881, a treaty was signed that fixed the frontier lines. The Executive Power of our country put into force the consequent law on October 11, 1881.

Article 1 of 1881 Treaty states:

"The frontier line of the Republic of Argentina and Chile is the Andes mountain range, from North to South as far as the parallel of latitude 52. The boundary line runs in that extension along the highest peaks of that Cordillera which divide waters and passes between the springs that flow to both sides. The difficulties, which may arise because of the existence of certain valleys formed by the bifurcation of the Cordillera

and in the cases in which the water division line is not clear, will be solved in a friendly way by the two appointed Experts, one for each country. Should they not reach an agreement, a third expert agreed upon by both governments will settle the issue."

However, this treaty did not solve the problem; the discussions, different interpretations and controversies continued without agreement. Chile, represented by Minister Diego Barros Arana, defended eagerly the principle called *Divortium acquarum* while the Argentine



President Julio A. Roca.

government claimed the compliance with article 1 of the treaty, which stated that the boundary line would run along the highest peaks of the Cordillera.

It was then agreed to adopt a practical method to solve such a controversial issue: to set milestones. In order to put that into practice, a supplementary agreement was signed on August 20, 1888, which established that both countries would appoint their experts to set the boundary lines on the territory. This task had to be fulfilled in a period of two months.

The President of Argentina, Dr Miguel Juarez Celman, and his Minister of Foreign Affairs offered Moreno the post of Expert. He declined the offer on the grounds that he was too young – he was then 36 years old – he had few merits and lacked a diplomatic character to have the necessary authority to accept such an important task. However, he offered the government his collaboration.

Dr Octavio Pico was appointed Expert in June 1889; some years

later due to his death, Dr Norberto Quirno Costa replaced him. It was already 1893 and no agreement had been reached. Then in 1893 (May 1) they decided to write an Additional Protocol, explanatory of 1881 Treaty, and to begin the delimitation of boundary lines. But when the first milestone was placed in the main mountain chain of the Andes, in the Puna de Atacama, serious controversies aroused. Therefore, on April 17, 1896, another agreement was signed establishing that in case that discrepancies still remained, the contracting parties agreed to appoint the Government of the British Majesty as arbitrator.

Difficulties continued and the relationship between both countries got even more complicated. All the attention of the country was focused on the appointment of a new Argentine expert for the vacant post due to Dr Quirno Costa's resignation. At that moment, Moreno was well known and undoubtedly he was the person to occupy such a difficult position. In August 1896, the president of Argentina, Dr Jose Evaristo Uriburu asked Moreno to be the Argentine expert. By this second time, Moreno had already carried out many explorations and studies which had increased his knowledge, highly recognized then without any doubt. Therefore, in this case he accepted his appointment as he was convinced that he could render useful services to the country and he started working in September 1896.

oreno's Background. In Moreno's paper "Apuntes para una foja de servicios", he describes the activities he developed for more than twenty years related to the public function as follows:

- In April 1873, I began my explorations visiting the Rio Negro valley.
- Between July and December 1874, I accompanied Lieutenant Colonel Martin Guerrico in his voyage on Rosales brigantine to the Bay of Santa Cruz, to inform about the conditions of the lands close to that Bay that Chile had occupied.
- Between October 1875 and April 1876, I arrived at Lake Nahuel Huapi visiting the Andean region where the towns of Junin and San Martin de los Andes stand today. Throughout over 2,000 km I gathered geographical information and collected data about the Indian tribes of those regions.
- By mid 1876, I made a short study trip to Santiago del Estero and Catamarca.
- Between October 1870 and March 1877, with the support of the Ministry of Foreign Affairs, I traveled on schooner Santa Cruz and I reached the lake, which I named Lake Argentino. I could prove that the Cordillera certainly runs from north to south towards the west of Brunswick

peninsula, and that there was no branch reaching Cape Virgenes, as Barros Arana claimed.

- When I returned to Buenos Aires, I informed the Minister about the obtained results and I gave the necessary elements for the discussion about boundary treaties with Chile. I referred to the Argentine rights in my publications "Apuntes sobre las tierras Australes" and "Viaje a la Patagonia Septentrional", in which the boundary issue was dealt with from the geographical point of view for the first time.
- Between October 1879 and March 1880, in my capacity as Chairman of the Exploration Commission to the southern territories, appointed by the National Government, I arrived at the place where Colonia 16 de Octubre stands today, went from south to north as far as Lake Nahuel Huapi, I discovered Lake Gutierrez and reached Lake Huechu Lafquen, in Neuquen.

The geographical results of this trip were very important since I discovered a vast fertile region and I personally observed the phenomenon of continental "Divortium acquarum", to the east of the Cordillera. I came back in poor health due to the physical troubles I had to endure when I was taken as prisoner by Indian tribes and the distresses during the



Lake Huechu Lafquen. Photograph taken by Moreno (1890).

escape along the Limay river.

- I was forced to stay in bed and I traveled to Europe to relax and recover (May 1880) where I stayed for a year working also for the benefit of the country.

- Already in Buenos Aires, in May 1881, the Minister of Foreign Affairs, Dr Bernardo de Irigoyen, asked me to make a map of the Patagonia and to write a report about the boundary treaty with Chile to be discussed in Congress. The report was partly read in July

sessions; in it, I gave my opinion about the boundary issue with Chile, criterion that I maintained later as Argentine Expert.

- In 1882, I began a series of journeys to explore the Andean regions of the provinces of Cuyo, visiting some places of the Cordillera where the boundary delimitation established by 1881 Treaty could give rise to difficulties. I returned to Buenos Aires in April 1884.
- In September 1884, as Director of La Plata Museum, I worked in its organization so that it could help to the knowledge of the country physical geography and of its soil richness.
- In 1887, believing that little attention was being paid to the geographical study of the Andean-Patagonic region, essential for the National

Government to solve the way of putting into practice the boundary delimitation agreed in 1881, I sent to the South the first expedition of the Museum.

- At the end of 1888, the Ministry of Foreign Affairs, Dr Quirno Costa, offered me the honorable post of Argentine Expert, a position that I

turned down because I did not consider myself as much prepared as the Chilean Expert, Mr. Barros Arana. But I was at the disposal of the appointed person to give all my cooperation.

- In 1892, as Director of La Plata Museum, at the request and with the co-operation of the Ministry of Foreign Affairs, I began the geographical and geological survey of the Andean region; between December 1892 and April 1893, I visited all along Puna de Atacama, from the limit with Bolivia, and I examined the milestone of Paso de San



Tuffs on the Limay River. Photograph taken by Morono (1896).

Francisco and informed the results of this study to the Ministry of Foreign Affairs.

- In 1894, I led the geographical and geological study of the Andean region to the west of San Rafael, Mendoza, where the practical delimitation of boundaries had to begin. That year I wrote a long report for the Argentine Expert, Dr Quirno Costa, at his request.

- At the end of 1894, the Ministry of Foreign Affairs entrusted me to continue the geographic and geological studies to the south of Puna de Atacama, which lasted until May 1895, informing the obtained results to the National Government.

- Between January and February, 1896, an expedition organized by La Plata Museum, made up of more than twenty professionals and technicians, was useful to survey an area of 170,000 km² between San Rafael and Lake Buenos Aires. It was the most ambitious and complete expedition ever. When returning Moreno said: I crossed to Chile by Nahuel Huapi and I visited Mr. Barros Arana, whom I commented in a friendly way the main results of my trip and the mistakes he made when stating that the main chain of the Andes coincided with the continental Divortium acquarum...

- I returned to Buenos Aires and began writing the book called "Apuntes preliminares sobre una excursion a los territorios de Neuquen, Rio Negro, Chubut y Santa Cruz", that would include the results of the observations of this trip... This book was distributed after my appointment as expert, in September 1890, and contributed efficiently to set the boundary issue in its real place. Igobone (1995) in his book "Francisco Pascasio Moreno, arquetipo de argentinidad" [Francisco Pascasio Moreno, archetype of Argentinity] made the following comment about such a relevant work: "In this book Moreno shows his mature judgment, his deep scientific erudition, knowledge of nature, fruitful inspiration as a poet and acute observation as a statesman. His scientific contribution is very important; he gives valuable data on natural resources and possibilities of economic exploitation and complements everything with the elaboration of a thorough plan of railways, which served as basis, years later, for the bill introduced in Congress by the Minister of Public Works, Dr Ezequiel Ramos Mejia".

even Years as Argentine Expert: 1896-1903. Some months after taking up the post of expert, Moreno traveled to Santiago de Chile. He crossed the Cordillera on mule back, at the beginning of 1897, together with his wife and his four children, accompanied by his friend



Moreno's wife Maria Ana Varela.

and Secretary of the Commission, Clemente Onelli. He immediately began with intensive actions, meetings with diplomats and advisors of the Chilean government, to exchange opinions and make things easier for the future negotiations.

Upon arriving, his wife got typhoid fever; after almost fifty days of illness, and when her recovery seemed to be very close, she died of a sudden complication on June 1, 1897. The grief he felt over her loss was shared with the Chilean society that regretted his young wife's death very much. Maria Ana Varela managed to win the affection of the Chilean community in the few months she lived in Santiago. The press covered this news widely, pointing out that "...her kindness, culture, her friendly personality and beauty played an important role in the admiration the

Chilean society felt for her".

After accompanying the remains of his wife by steamer to Buenos Aires, in July 1897, he returned to Santiago de Chile where he continued his work until the end of that year. At the beginning of 1898, he traveled to Buenos Aires and there he had interviews with the Minister of Foreign Affairs. Besides, together with his advisor, Enrique A. S. Delachaux, he prepared the cartographic documents for the Argentine allegation.

In August he had to go back to Santiago to participate in a meeting of experts, in the International Office of Boundaries of that city to be held on August 29.

In this very important meeting, Dr Barros Arana stated his project about the delimitation of the frontier line and he made a detailed list of the 348 points that formed the layout he suggested. Moreno accepted to place milestones but he made clear his disagreement about the location of some because while the Argentine line always continued along the main chain of the Andes, the Chilean one got separated from the Andean chain to follow, to the east of the Cordillera, the separation of the rivers that flow into the Atlantic and Pacific, instead of the division of the flows in the peaks.

The following is a letter sent by Moreno to his father in-law, in August 1898, just before leaving for Santiago de Chile:



Dear old man,

I am writing to you in a hurry while putting aside the drawings we have just finished today. Through the newspapers I am sending, you will know the general good opinion about me. I have worked that much! I do not know how I am alive but the effort was necessary. Tomorrow I will get on a ship. I hope to be in Santiago on the sixteenth and I will try to get in contact with the relevant men before beginning to deal with this issue. I am hopeful that there will not be great problems. The government authorities of that country will be very hard if they do not understand what I take and the truth and right that are on my side. They are 180 drawings! It is probable that if they understand the documentary evidence, the governments will reach an arbitral solution. The telegrams will keep you up to date and maybe the good news arrives before this one.

I am pleased. The government and people without exceptions trust me; I only feel sorry because I have to be apart again from my children and the cemetery.

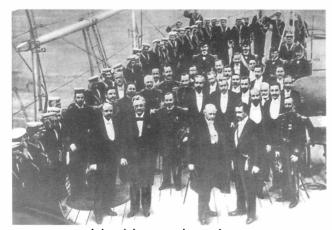
I feel exhausted, my dear old man. I am alone, all the employees have flu and I have to do everything by myself. Delachaux comes with me to Santiago to draw the definite drawings, but he is in bed today.

Here they are all fine. A hug from Pancho.

August 4/98.

This was the main point of the conflict that forced arbitration since the experts of both parties did not reach an agreement. In view of this difference that made the solution impossible, Moreno assumed personally this extraordinary and surprising responsibility: to hold talks with the Chilean president, Dr Errazuriz, with whom he had excellent relations, to suggest the possibility of talking with General Roca who, in a few months, would take on the presidency of Argentina. When Dr Errazuriz accepted, he immediately traveled to Buenos Aires to convince General Roca. His actions were successful and, on February 15, 1899, the historical meeting in the Strait of Magellan took place aboard the flagship O'Higgins, between the presidents of both countries, which meant a friendly gesture and a tacit agreement of goodwill between the two nations. Their presidents agreed to take a decision on the boundary issue, especially the delimitation in Puna de Atacama, where the differences were greater.

As an immediate consequence of this summit meeting, the deliberations between Argentine and Chilean diplomats, and members of the British Government, in its capacity as arbitrator of the boundary conflict, began in London. Moreno who had traveled to London together with his four children in January, 1899, was the geographic advisor of



Roca and the Chilean President Federico Errazuriz Echaurren (1899).

the Argentine Minister in the meetings.

During his stay he contacted the Royal Geographical Society. He was invited to deliver a lecture, held in May, whose content was read in English by Major Darwin, Honorary Secretary of the Society and son of Charles Darwin.

In the letter sent to General Julio Roca, Moreno told him:

For my part, I only explained the 65 wonderful photographs. I think that Argentine people that were there must have been amazed at this session. We need to make the country known in all its aspects. We do not still have the place we deserve

as an American country and it is our duty to try to achieve it.

He continued the letter making some comments about the proposal of sending scientists to research some of the problems mentioned in his lecture. About this, he said: ...the visit of efficient and selfless men is convenient. Once they know us well, we will be better appreciated...

In 1900, Moreno lived in London almost all the year and his children went to school there. In June he sent a letter to the Minister of Education, Dr Magnasco, in which he commented on the teaching given in that city.

In 1901, he returned to Buenos Aires with three of his children; the eldest stayed in London where he studied painting.

That same year Colonel Sir Thomas Holdich arrived in Buenos Aires. He was a well-known geographer, appointed by the British Government as representative of the Arbitration Court in the area under dispute.

Almost immediately he started his explorations. For three months, together with the members of the Argentine and Chilean groups, he

visited the vast Andean region between Lake Lacar and the heart of Ultima Esperanza.

The British commission did a great job in such a short time; the Colonel Holdich stated – publicly and in official documents – that this enterprise was successful thanks to the invaluable help of Expert Moreno.

Upon finishing the preliminary survey tasks, the British Colonel returned to London to present his report to the Superior Court. Moreno, who wanted to follow personally this process, traveled with him.

In London, proceedings moved on quickly and Moreno, always paying attention to how things developed, thought about the subsequent actions after the signing of the arbitration decision: the placement of milestones to mark the boundary line.

He, then, began to work hard to achieve an agreement between the diplomatic representatives of Argentina and Chile so as to request the Arbitration Court the appointment of a special commission to determine in the land ... the demarcation decided upon in its judgment. This suggestion was accepted by the Court and the diplomatic representatives of both countries signed the corresponding proceedings that constituted the Pacts of May 1902. Colonel Sir Thomas Holdich was appointed to chair this Special Commission, made up of Captains R.S. Dickson, R.E. Thompson, R.E. Robertson and R.E. Crosthwait as collaborators.

On November 20, 1902, King Edward VII signed the arbitration decision and soon afterwards the members of the British Commission, accompanied by Moreno and his secretary, Clemente Onelli, traveled to

Buenos Aires where they arrived on December 27.

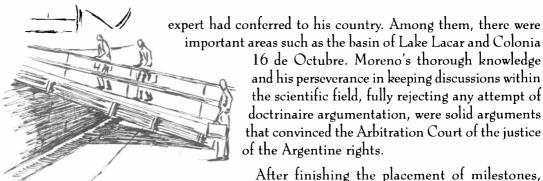
Soon after their arrival, which was celebrated eagerly according to the press comments of that time, the groups were organized -- five altogether -- and began their activities in the high Cordillera in January 1903. Moreno helped the several groups so tirelessly that he became one of the most relevant figures among the collaborators of the arbitrator, to such an extent, that he



Expert Moreno and Sir Thomas Holdich (1902).

wrote in his last report presented on June 30, 1903, to the Arbitration Court: "I cannot enough express my gratitude to Dr Francisco Pascasio Moreno for his energy and cleverness with which he organized the preparations for the delimitation in remote and difficult regions".

With these final tasks, the decisive document was written which meant for Argentina the addition of $42,000 \text{ km}^2$ of territory that the Chilean



Moreno returned to Buenos Aires where he continued receiving the gratitude of all the country. He went back to La Plata Museum but he did not live there any more; he moved with his three children to the country house in Parque de los Patricios.

he Expert Moreno and Colonel Sir Thomas H. Holdich. Soon the British Colonel Sir Thomas Holdich and Expert Moreno built a kind and respectful relationship. The Colonel's figure, tall and arrogant in appearance, with long dropping moustache already white, reflected dignity and simplicity at the same time. Outstandingly laconic and discreet, he never showed traces of tiredness during long working days; Moreno was attracted by his evident impartiality and honesty. For the Colonel's part, he noticed Moreno's thorough knowledge of nature and geography of the vast visited areas, as well as his extraordinary working capacity at the service of the exploration groups.

Some anecdotes, two of which are referred to hereinafter, speak for themselves and allow to appreciate the level of sincerity and respect they both have for each other.

- During the first months of 1901, the British Commissioner started the explorations in the Andean region, together with the Argentine and Chilean commissions. When they finished the work in one of the areas, the one of Colonia 16 de Octubre, whose ownership was claimed by both nations, Moreno was very anxious to know Sir Thomas Holdich's opinion but, obviously, he did not dare to ask. Once the works were complete, Moreno wanted to show his cooking skills preparing one of his favorite dishes: ducks grilled on hot stones, which the Colonel liked very much. When they finished eating and while they were talking in a friendly way, the Colonel dropped the following comment into the conversation casually: "These Argentine ducks are very tasteful, Moreno". In a subtle way he gave his opinion about the lands under dispute; Moreno, for his part, pretended he did not understand its meaning.

- On another occasion, Colonel Holdich, who appreciated very much Moreno's ability to plan the places to visit, could not hide his surprise when seeing the equipment prepared that time: a sulky type carriage. His concern was caused by the fact that the area to be surveyed, known as El Maiten in Chubut, was full of mountains, according to the maps prepared by the Chilean expert; on the contrary, Moreno sustained that the region was plain, a prairie just above sea level. That is why Moreno, together with his assistant and friend, engineer Emilio Frey, planned this unusual choice of carriage. Engineer Frey described the funny departure of the exploration commission: "Colonel Holdich and I were sitting at the front of the sulky; he remained unruffled, while Moreno was on his mule behind us, laughing like a child".

It is obvious that the British Commissioner understood well his intention and, as he was completely sure about Moreno's knowledge, he did not object at all. In fact, the sulky journey was pleasant without any trouble. Moreno, impassive, did not say anything: the practical example did not need any explanation.

enix River Operation. The so-called "Fenix river operation", which involves returning its waters to the natural course, was a really geographic and diplomatic victory for Moreno, and this was as an indisputable argument against the thesis sustained by Chile.

In order to explain it, we mention the concepts stated by Moreno, before his appointment as Expert, when referring to this problem:

The Fenix river originates in the snowcapped peaks of the Cordillera that dominate Lake Buenos Aires, in Santa Cruz, and descends immediately to the bottom of the plateau, in the depression between the two main lines of the moraines. This river winds several times, according to the whims of the sandy hillocks, towards the southeast, to come back violently to the west, flowing into a lake after more than 50 km between the moraines. This Fenix river, that previously drained into the Atlantic, has been interrupted by one of the most common phenomena in rivers that cross loose lands, mainly glacial. A simple slide of stones has blocked its course, leading it to a lake to the west, while to the east the waters run only during freshets... Its old river bed is today almost filled, but some working hours would be enough to make its stream return to its original course, to the east, to drain into the Atlantic Ocean...

Later, when Moreno, in his capacity as Argentine expert in the boundary issue with Chile, had to deal with the study of this area, he plotted together with the complicity of his secretary and friend, Clemente Onelli, what he himself called "a mischief", working with a group of laborers, directed by Onelli. In a few days they managed to make the waters of the Fenix river, which originates in the high peaks, to return to its old course. The evidence was categorical and it was then proved what Moreno affirmed: the continental "Divortium acquarum" was an arbitrary and changeable limit.

Obviously, this action gave rise to a letter from the Plenipotentiary of Chile addressed to the Argentine Foreign Office, asking for an investigation "...because there were circumstances to make him believe that the authors of the deviation were members of the Argentine Boundary Commission". The answer from the Foreign Office, precise in its arguments, expressed the following in its final part: "In fact, the Expert's assistants reestablished the natural course of the river but they did not try to change the situation of the Andes...".

Moreno confided the works to change the course of the Fenix river to his reliable assistant Clemente Onelli. This Italian naturalist arrived in Buenos Aires in 1889, when he was twenty five years old. After working in several tasks, he met Moreno, who valued very much his intelligence and knowledge in natural sciences. So he asked him to join his working team as personal secretary, and also appointed him Advisor of the Argentine-Chilean Boundary Commission, duties he performed brilliantly for seven years (1896-1903). Their relationship was based on mutual respect and they built a true friendship.

In Onelli's book called *"Trepando los Andes"* [Climbing up the Andes], published in 1904, the author describes an exploration carried out in 1903, from the confluence of Rio Negro and Limay river as far as the southern extreme of the province of Santa Cruz. When he found his old known Fenix river, he recalled an event in which he played the main role: the so-called *"Fenix River Operation"*.

"In this place in the year 1898, following Expert Moreno's instructions, we deviated the course of that river that drains into Lake Buenos Aires, making it flow as tributary of the Deseado river. I remained for a while observing the work that years and the flooding had completed, making the river-bed stream flow faster: I remembered the eleven days of hard work with blistered hands because of the spades; I also remembered that



The Fenix river. Photograph, taken by Moreno (1896).

that evidence of Moreno's theory had to be ready and complete by the day the Chilean expert was supposed to he there and that I had to control the uprising of some men, gun in hand, exhausted due to that hard task; those hours full of anxiety came back to my mind when the canal mouth was opened, the waters during the night were stuck where the pampa finished, not following the slope of the Deseado river stream. Now the river flows quietly into that canal and the waters run fast as if they have always done that since the beginning of the centuries".

Clemente Onelli concludes his comment as follows:

"The day the government corrects a little the flow of the Fenix river into the Deseado, the work devised by Moreno will also irrigate and give life to some millions of hectares of dry lands, thus crowning the enterprise of this wise tireless man who has obtained for his nation

thousands of leagues under discussion with the neighboring country; and encouraged by his never-ending energy and impulse, the Argentine geography, which was fifty years behind, was updated in a short time, to such an extent that geographers such as Reclus, Rabot, Lapparent and Gallois declared that the whole work presented to the English Arbitrator was the most beautiful example of the American energy and activity".

Moreno's wife: Maria Ana Varela

aria Ana Varela was daughter of Rufino Varela, government official and reporter, and of Josefa Wright. Her grandfather was the well-known poet and writer Florencio Varela. Her family always had a close and friendly relationship with Moreno's parents.

They got married on June 14, 1885; she was then seventeen years old and he was thirty three.

The married couple lived the first five years in Buenos Aires, in Parque de los Patricios. During this period two children were born: Francisco Jose (1886) and Juana Maria (1888). Moreno, who was working as Director of La Plata Museum, traveled by train to that city, returning many times the same day in order to be with his family, despite the hard work his post entailed.

At the end of 1889, the situation changed: once the works of adapting a house in the museum building were finished, the couple with their two children moved to La Plata. They stayed there until 1897, a period in which they had the other two children: Eduardo Vicente (1890) and Florencio (1891).

These years, together with his wife and children, were very profitable for Moreno since he could develop a steady remarkable work.



Moreno's wife Maria Ana Varela and her children.

enjoy her company.

But the situation got difficult soon when he was appointed as Argentine Expert in September 1896, because the responsibility of this post forced him to stop working at the museum for some time.

It was necessary to travel to Chile as soon as possible. In order to save time to arrive in its capital city, Santiago, he then decided to cross the Cordillera on mule back, together with his secretary Clemente Onelli, whereas his wife and children would travel later by sea.

She did not accept that plan. This strongly held attitude shows her courage, strength of spirit and complete commitment with Moreno's objectives. Her decision was to be part of the group, together with her children, which would cross the Cordillera. The weak opposition of her husband reinforced even more her aim since she believed that he would

They arrived in Santiago the first days of January 1897. The atmosphere in this city was quite hostile towards Moreno who was considered as an enemy because of his strong opposition to the ideas of the Chilean Foreign Secretary, Diego Barros Arana. However, Maria Ana was soon described as an authentic diplomat by the Chilean society.

Unfortunately, her actions would not last long: by mid April she got typhoid fever and had to stay in bed. The Chilean doctors gave her excellent assistance and, when they noticed some favorable symptoms, which gave rise to some optimism, she unexpectedly died on June 1, 1897, due to a heart failure.

The homage rendered by the Chilean press was very moving. The writer Alberto Mackena said: "Maria Ana Varela was one of those chosen people who have in themselves vitality, talent and beauty...". The newspaper "La Union" made this comment: "She would have been a bond between these two nations separated by the Cordillera... understanding the opinion of people of good will from both countries, she wanted the union and peace...".

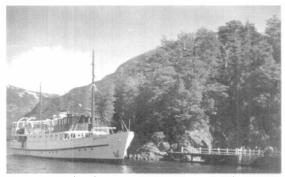
Her remains were carried to Valparaiso, amid an affectionate tribute,

in presidential train wagons. In this port, the voyage continued to Buenos Aires where, in the cemetery of Recoleta, her coffin was placed in Josue Moreno's vault (Moreno's brother).

Moreno traveled on the same ship with his four children who would

then be looked after by their mother's parents. Immediately he returned to Santiago where he continued his activities as Expert, drowning his pain with hard work.

An event previous to her sad death allows to appreciate significantly her role. On May 1, 1897, an agreement was



Transfer of Mrs. Moreno's remains to the Centinela Island.

signed in Santiago – the "May agreement" – by means of which it is resolved that: "...the experts will study the frontier line in their lands and will continue with the delimitation until the end of the favorable season."

Moreno was at a difficult crossroads. To comply with what the agreement established, he had to leave his family for a long time. In such hard times, he did not hesitate to talk with his wife, already ill, to let her know about the agreement made between Argentina and Chile that same May 1. After a long time, Moreno wrote this paragraph about their conversation:

Words of consolation always flow from the voice of the nation; the inevitable

is expressed firmly in front of the future about which it speaks and this was my case. My wife, my confidant of so many uncertainties, of so many doubts about the Argentine future, in the Andean storms, gone forever from my side, talked to me in the last moments about my duty and my children, who would grow up in that future; and thinking about the present and future, I did not hesitate, not even for a second, that there was no obstacle to prevent me from carrying out what I had talked with her, already ill, a month before



The priest Enrique Monteverde blesses Mrs. Moreno's tomb.

her death the same afternoon in which the May agreement was signed.

Moreno's words are a real proof of their mutual love and understanding. Besides, they show Maria Ana's commitment with Moreno's ideals that led, from his youth, all the actions of his exemplary life.

Considering all this, it is praiseworthy and also moving that the national Government resolved in 1954 to carry Maria Ana's remains to the Centinela Island, to be placed together with her husband and friend Francisco Pascasio Moreno.

On her coffin, there is a flower wreathe engraved in silver, offered as homage by the Chilean society.

CHAPTER 8

IS FINAL STAGE



HIS RESIGNATION AS DIRECTOR OF THE MUSEUM HIS DEDICATION TO HELPLESS CHILDREN PATRIOTIC SCHOOLS NATIONAL COUNCIL OF EDUCATION CREATION OF EVENING SCHOOLS FOR ADULTS MORENO AS NATIONAL DEPUTY HIS LEGISLATIVE ACTION

B

y mid 1903, the task of placing the milestones according to the arbitration decision of the British Government dated November 20, 1902, was completed and the members of the exploration commissions who had fulfilled this objective returned to Buenos Aires.

Moreno returned to the Museum, but he stopped living there and he moved with his family to the country house in Parque de los Patricios.

He continued with his work as Director of the Museum until 1906, but he resigned when this institution became part of the recently founded National University of La Plata. He thought that the atmosphere of the country house would help him recover the peace that he had lost while working hard as an Expert.

oreno's Resignation as Director of the Museum. The original text of this resignation is unknown; his granddaughter, Adela Moreno Terreno de Benitez, in her book "Recuerdos de mi abuelo Francisco Pascasio Moreno" [Memories of my Grandfather Francisco Pascasio Moreno] wrote that she could not find it but that she found a note addressed to his close friend, Dr Ernesto Quesada, transcribed as follows, in which he set out the reasons for his decision of leaving the Museum.

The direction of such a museum demands, tyrannically, the exclusive dedication of the whole life; I thus conceived it until the government asked for my patriotic collaboration in the boundary issue. It is true that I rendered a great service to my country, doing what in that sense I could plan and carry out, but I recognize that that has deviated myself from the activities of that direction and that I was unable to go on controlling the development of the Museum. And this interruption of my work cannot be amended: I should bear the consequences. The construction of the Museum, the gathered collections, the organized staff, the Magazine and in the Annals, are proofs that my participation was not fruitless; but the demanding conscience claims my resignation because I consider that I must be replaced by someone who is determined to devote his entire life to the task, without restrictions. If I were still offered the post now as I was offered before, I would not certainly abandon my place. In addition, I would increasingly focus my work to direct the Museum and to sacrifice, if necessary, the production. Burmeister's example, absorbed by his personal work and turning the Museum of the Buenos Aires into an exclusive laboratory for his special purposes, clearly shows that for the country and for the scientific institution under his direction, it would have been preferable to have a director than a wise researcher. Specialists must be given the opportunity of working extensively on their research, but outside the direction of these institutions which suffer the exclusivity of the wise man who forgets everything outside his visual field, inevitable limited by the tunnel vision of all specialties.

That is why, according to this idea, I have preferred being a true director rather than a specialist researcher. So: I love the Museum as my own creation, above all, and I would like it to become an institution attracting the attention of the scientific world; I have already given the best of my life to it; now it is time for others to come and complete the work.

However, he could not avoid his fate; his life went on glorifying work, to which he always offered the power of his extraordinary spirit. Casual circumstances determined it.

He worked for more than thirteen years – until the end of his life – in the creation of schools and provision centers of free meals for helpless children; as Vice-president of the National Council of Education (1913-1916) a period in which, thanks to his impulse, the first secondary technical schools and evening schools for young people and adults were opened. Moreover, finally as National Deputy, he introduced several wellfounded bills which were of true national interest.

It is our purpose to mention some aspects related to this stage in Moreno's life since they are useful to make a summary and underline the moral principles which led his actions, and to underline the significance of his main legacy: the love and generosity which characterized all his life.

is Dedication to Helpless Children. In 1905, Moreno lived the first of a series of "casual events" which made him change the course of his life.



Important achievements are obtained during this period, among them: a sharp increase in foreign trade; the continuous extension of railways, oil discovery in Comodoro Rivadavia and the creation of the State Company Yacimientos Petrolíferos Fiscales (YPF) [State Oil Fields].

In the world, the most outstanding event is the outbreak of First World War in 1914 and the armistice signed in November 1918.

1906. General Bartolome Mitre dies in Buenos Aires.

Gandhi begins a campaign of civil disobedience in South Africa.

President Manuel Quintana dies and the Vice-president, Jose Figueroa Alcorta, replaces him and completes the period until 1910.

The first car race takes place in Argentina, between Buenos Aires and Tigre.

1**907.** Oil is discovered in Comodoro Rivadavia.

The first air balloon flight takes place, led by Jorge Newbery and Aaron Anchorena, on Pampero

balloon.



Pampero balloon

1908. The state company Yacimientos Petrolíferos Fiscales (YPF) is founded.

Historical Background

The Colon Theater is opened.

The car Ford T model is on sale in the United States.

1909. The French pilot Louis Bleriot is the first person to cross the English Channel in an aircraft in forty-three minutes.

The Argentine Jorge Newbery flies from Argentina to Brazil for the first time on an air balloon.

1910. The first centennial of May Revolution is celebrated.



May 25, 1910.

A bomb explodes during the gala performance in the Colon Theater, wounding five people.

Marie Curie isolates radium for the first time.

Roque Saenz Peña becomes president of Argentina. The country has a population of over six million people (one million Italians and eight hundred thousand Spanish people).

The city of Buenos Aires has a population of one million and four hundred people.

1911. Florentino Ameghino dies.

The Norwegian explorer Amundsen conquers the South Pole.



Children from nearby neighborhoods frequently got into the country house, climbing up the fence of the gate, to steal fruits. The conscientious farmer, Vicenzo, got desperate because he could not stop the swam of little sly boys that used to pick up a great number of pears and peaches. Concerned about this situation, he spoke with Moreno to solve it.

The following day, to Vicenzo's surprise, Moreno made this strange decision: from that moment on, he told him, the gates of the house would remain open during the day so that the children could get in as if it were their own house and eat or pick up fruits without being afraid.

The little hoys from the neighborhoods of "La Quema" and "Las ranas" felt more and more at home there and the group increased day after day. Moreno talked with them, he taught them to respect plants and birds; he got interested in their problems. When he realized that many of them had alarming nutrition problems, he began feeding them with bread and a daily soup. Soon afterwards, he was serving one hundred meals every day.

But he was not pleased with this as he considered it just a palliative solution; he wanted to improve and extend this service but he did not have enough financial resources. He thought that, besides giving them food, he had to teach many of the children how to read, since their parents did not send them to school due to several reasons.

In order to solve this problem which greatly afflicted him, he decided to sell the remaining twenty two leagues of the ones he had received from the National Government in the area of Lake Nahuel Huapi as an "...extraordinary reward for his services to the Nation and in recognition that they have been for free for twenty-two years".

In this way, he obtained the amount of two hundred thousand pesos, part of which he spent to extend his country house, building a large kitchen and an annexed dining room. In addition, he designed a classroom to teach the first basic lessons and a room for the teacher.

Very soon, the works were completed and, some months later, there were already two hundred children who went there every day thanks to the funds obtained from the sale of his lands.

atriotic Schools. And at the end of 1905, the first Escuela Patria [Patriotic School] was born. Moreno gave it its name, inspired and directed it, in which the first lessons were taught and also poor children were fed.

But Moreno had always in mind great objectives. He was not pleased with this enterprise carried out personally and he wanted to expand it working together with institutions – and also with people – that rendered similar services.

One day that he was visiting the Barracas School, its headmistress, Mrs. Sara Abraham, was very worried about the increasing absence of children. Then they agreed to go to every house to convince parents to send their children to school, but they were faced with this cruel reality: the children's homes were very poor, parents went to work very early in the morning and returned in the evening, a period during which the children stayed alone; in other cases, they found mothers with little kids who could not work because they had to breast-feed them.

Due to these circumstances, Moreno decided, with Mrs. Abraham's support, to buy a lot next to the school, located on Arenas street, to build a place to shelter and feed children whose parents were unable to send them to school. Besides, he planned to hire wet nurses to feed babies whose mothers had to work.

This soon became true: the first provision schools of free meals and day nurscries were opened in 1906. By mid 1906, there were already three patriotic schools working under the direction of Father Patricio Walsh.

Moreno wanted to develop other assistance programs and, to achieve this, he thought convenient to contact "Patronato de la Infancia" [nonprofit, institution dedicated to child welfare in Argentina]. He described to its authorities the actions he was personally fulfilling and told them about his future plans: to open a children's home in the premises of the old Abasto Stockyards and to organize a system of social assistance to aid people with urgent needs from very poor neighborhoods of the Capital City, the one in which the burning of garbage takes place and the one called "*de las ranas*" [of the frogs].

The authorities of Patronato de la Infancia accepted his suggestions and, for a better coordination of the work to be developed, they proposed him to become a member of the Institution and to join the group in charge of drafting the project of the children's home in Abasto. As regards the mentioned neighborhoods, the president of Patronato went together with Moreno to visit and see them by himself. When he saw their dramatic situation, he asked Moreno to make a detailed report for its consideration in a special meeting.

In this meeting held on January 30, 1907, the report presented by Moreno and Mr. Meyer Arana was analyzed and unanimously approved.

The first "Patriotic Schools" of Patronato de la Infancia were then founded based on the school created by Moreno. In the articles of the proceedings of that



1912. The electoral reform is approved, led by President Roque Saenz Peña.

The moving stone from Tandil falls down.

The Titanic ocean liner strikes an iceberg and sinks in the Atlantic Ocean.

1913. The Grand Central Station in New York, which is the biggest train station in the world, is opened.

Line A of the underground begins operating – the first in Buenos Aires and South America.

1914. In Cerro de la Gloria, Mendoza, the monument inspired by Moreno in homage to the Andes Army is inaugurated.

An incident, the murder of Archduke Franz Ferdinand, heir to Austrian throne, causes the outbreak of the First World War.

Germany attacks France.

Argentina declares its neutral position in the First World War.

President Saenz Peña dies and Vice-president Victorino de la Plaza becomes president until the end of the period in 1916.



SCOLUTE ROL

Historical Background

1915. In Ypres, Western front, the Germans use poisonous gas for the first time in the war.

1916. Hipolito Yrigoyen is the first Argentine president elected according to Saenz Peña Electoral Law.



n. mgoyen.

1917. The United Stated officially enter the First World War.

The Automovil Club Argentino opens the First Car Showroom in Buenos Aires.

The manifesto of the University Reform is launched at Cordoba University.

1918. The armistice which ends the First World War is signed.

1919. In Buenos Aires, workers' conflicts get worse and the number of strikes increases from eighty in 1918 to three hundred seventy seven in 1919.

meeting (13 altogether), its functioning, management and collection of funds were ruled for the schools to be organized.

Its Article 1 establishes: "Based on the three Patriotic Schools, domiciled at Streets Inclan 1139, Brasil 2269, and Catamarca 1892, directed by Reverend Passionist Father Patricio Walsh, in the southwest area of this Capital City, where unattended or poor children living in that neighborhood are educated, the Patronato de la Infancia decides to organize two schools for boys, one for girls and a children's home to take care of boys and girls aged between three and seven years old".

In Article 2, it was resolved that an Administration Committee would have in charge the development of schools and homes. This Committee was created in March, 1907, and Moreno became one of its members until May 1911, committing himself immediately with all the responsibilities inherent to this post, which he had to leave in the abovementioned date due to his obligations as National Deputy.

He would get back again to this path of helping children and educating young people when he was proposed as Vice-president of the National Council of Education, a post he accepted and, consequently, he resigned his post as deputy, giving his reasons in a session of that House in March 1913.

Moreno said: ... I have decided to choose the post at the National Council of Education because I have been working more than forty years on the defense of the integrity of our territory and on the task of making its lands and values known. So it is logical that I prefer devoting the rest of my life to help the children of today, either poor or rich, become mothers and citizens who would efficiently contribute to the definite constitution of the Argentine Nation, being clear that the strength and greatness of tomorrow depend on the school of today.

ational Council of Education (1913-1926). Moreno summarized as follows his main objective: ...to persevere with my previous efforts in order to enhance and strengthen public culture, thus increasing the political and economic force of the Nation.

He described his main goals: The horizons of the school must be widened not only to increase the moral efficiency but also to become its basis. The National Constitution does not admit social classes with different rights, and the Argentine school should be placed within this great democratic principle.

From his post, he promoted Sunday schools, special schools for adults who did not know our language, mobile schools for those who could not go to classes; the creation of popular libraries and a central museum where the child would study methodologically the Argentine land and life; he encouraged graphic illustration at school to make easier that study and that of the Argentine history.

In May 1914, he presented a paper called *"Alimentación de niños menesterosos"* ["Food for poor children"] stating the rights children had and the State obligations to ensure they could fully exercise them. It is worth quoting some of these concepts:

If the State makes the child go to school, the child has the right to be fed by the State when his parents are not in a position to do so. Feeding every starving child is undoubtedly an unavoidable duty of the Nation, because if he has not reached the schooling age yet, he needs to be fed to reach it.

Children are our great national capital; the Nation must protect, help and guide them.

Happiness, the satisfaction gained at school and then passed to one's home, is never lost and it must be taken into account as a considerable force in individual and national life contingencies...

I myself have observed for more than ten years how much thousands of children of the proletariat in Buenos Aires suffer due to the lack of food and, in most of the cases, the reasons are not attributable to their parents...

The Honorable Council could mitigate these sufferings, helping at the same time the public school, by providing poor children with food in it, a system which began a hundred and twenty five years ago in Germany and it is now being applied in all the big European cities and in the United States.



reation of Evening Schools for Adults. Moreno was also concerned about evening schools for adults. In 1914, he presented a bill for their creation and development, approved on March 2 of that same year. To support it, Moreno stated that the Common Education Act was put into force thirty years before, when there were just a few industries in the Capital and, consequently, it did not take into account the need of industrial and commercial education for teenagers and adults, essential to carry out their jobs efficiently, earn their living and ...*lead a life that has become too difficult*.

He underlined that the task would be hard and that problems would certainly arise such as different age groups (teenagers together with people in their sixties). However, he insisted on his purpose, ...and results will surely compensate for all the efforts because the initiative spirit would be awoken which we, Argentine people, need so much and have so little in our national schools. In the same bill, he suggested a change of the curricula and described the theoretical and practical subjects to be included, among which he mentioned, in general terms, Music, for a better understanding and the comprehensive education of pupils.

We have said that Moreno was a man devoted to many activities, particularly known for his never-ending perseverance. In this



brief description of some aspects in this last stage of his life, this condition stands out with undeniable facts. Moreover, we can also appreciate other extraordinary qualities of his personality: being a philanthropist, teacher and sociologist. He always showed his idealism, supported by his powerful imagination and strong will when pursuing his goals, becoming a true precursor when

stating and dealing with problems that today, more than eighty years later, are still present.

Moreno, National Deputy (1910-1913).

ackground. In the first days of 1904, Moreno received a letter signed by the President and Secretary of the second electoral district of Buenos Aires, San Cristobal parish. In this note, they let him know that the population of that neighborhood had decided to support him as Deputy in the next election, considering that his participation in the Legislative Power would be beneficial for the national general interests and, particularly, for those of that electoral district. The letter also referred to his explorations in the Patagonia, his comprehensive knowledge on the nature of the Argentine territory, his job as Director of La Plata Museum and, last but not least, to his extraordinary contribution as Argentine Expert in the boundary conflict with Chile. It also pointed out his truly exemplary unselfish attitude throughout all his life. Taking into account all these facts, they concluded: "…we believe that you, one of the oldest neighbors who know the area well, are the ideal candidate for Deputy."

Almost immediately, on February 15, Moreno sent his answer by mail, thanking the trust the neighbors had put in him and accepted the candidacy they had offered on the grounds that ... every self-respecting man must not avoid his participation when he considers that he will be useful for the interests of the social group to which he belongs, no matter the effort he is asked to contribute to the development of the country as long as this effort is within his aptitudes.

Moreno, then, describes his main ideas for the promotion of the parish and the transformation of the city of Buenos Aires into a great civilization center widening the horizons towards the Atlantic and the Pacific: ...looking for the harmony of an economic, social and political body, solving difficult problems whose solutions are essential for the health and strength it needs to follow its destiny.

He emphasizes the partition of the city in zones, with ordinances ruling the settlement of factories, residential areas and large green parks. He was particularly concerned about the marshy area in the south and the destructive flooding which occurred there. He said: We have suffered for more than thirty years from pestilences and other inconveniences from the burning of garbage and I think we have the right to make use of the waste to lift the soil, which would be drained by canals. Thus, the neighborhoods of "La Quema" and "Las Ranas", two disreputable areas, will be transformed and, from their repulsive muddy soil, practical

schools and factories will arise; and consequently the present environment will change. It is known that where work and schools prevail, the jail is closed.

He finished advising that the already existing Social Club could be the center to try to gather the largest

amount of neighbors to organize meetings and discuss the industrial, educational and building interests of the Parish.

When Moreno received this proposal, he was the Director of La Plata Museum but he resigned in March 1906. From 1905, he began to work personally on the health and education of helpless children, opening the first Patriotic School in his country house of Parque de los Patricios. As these works were later increased by the joint action with Patronato de la Infancia, he wanted to continue them until the consolidation of the program he was so much fond of. So he only joined the National Chamber of Deputies in 1910.

is Legislative Action. The Bills he Introduced. He held the post of Deputy between May 5, 1910, until March 14, 1913, during the presidency of Roque Saenz Peña and he resigned in March 1914 when he was proposed to be Vice-president of the National Council of Education. He considered that, from the ethical point of view, he could not perform simultaneously both duties, and he chose the post in the National Council of Education.

His work as Deputy, though it only lasted a short time, was characterized by his personality: that of a man of vigorous actions, encouraged by a pure idealism that he owned since his youth.

He introduced seven bills whose contents allow to appreciate his vast

knowledge; he presided over the Commission of National Territories that carried out surveys in Chaco, Formosa and Misiones; these studies were useful to support some of the bills listed hereinafter.

It would take many pages to give details of the bases of his bills, stated in their articles, and of his speeches at the Legislative Chamber when he presented them. Many of his statements, still very updated, are amazingly deep and clear-sighted. We will try to summarize them, revealing their essence.

1. Bill: Development of National Territories. Amendment of Law 5559.

This bill was introduced on September 21, 1910.

Law 5559 authorized the construction and operation of railways from San Antonio, Rio Negro, to Lake Nahuel Huapi and from Puerto Deseado, with branch lines to Comodoro Rivadavia, Lake Buenos Aires, and to Colonia 16 de Octubre. The first section, San Antonio to Lake Nahuel Huapi, had already been operating.

The bill introduced by Moreno proposed the amendment of this law to add four railways: from Puerto Gallegos, Puerto San Julian, Rawson and an extension from Nahuel Huapi to the frontier with Chile.

Moreno said during the presentation:

Knowing the southern territories, though it took a long time, has been



Lake Nahuel Huapi. Present Photograph.

extraordinarily profitable; vigorous men, almost without official help, have settled there and today they exploit thousands of leagues and form active population centers even on their remote beaches, making their transformation easier...

These railways cross lands which are fruitful in most places and may be used for agriculture and cattle raising; the forests of the Andean slopes and the hydraulic force produced by the large amount of water there will increase their industrial value... The four railways, whose study is authorized by this bill, are indispensable for the balanced development of the Nation and will give the Atlantic

coast the value it should have.

The scientific knowledge of the physical conditions of the soil, topographic, hydrographic and geological features, will provide the basis for the layout of these railways...

The branch line Colonia 16 de Octubre, authorized by Law 5559, will begin in Tecka and will favor the transportation of goods of the region, which

is isolated today. The present maps of the regions do not give an exact idea of their relief. Where supposedly there are plateaus, there is an important mountainous region that I visited in 1879, full of good grass and water and where copper has been found. Much of this land still belongs to the State and if it is studied properly, its sale will produce enough for the construction of these railways...

II. Bill: Acquisition of Dr Florentino Ameghino's Collections.

This bill was introduced on August 23, 1912.

Its article 1 authorized the Executive to acquire, for the National Museum, Dr Florentino Ameghino's paleontological and anthropological collections, library and manuscripts which belonged to his heirs.

Moreno said in that occasion:

Dr Florentino Ameghino, with an exemplary perseverance, gathered for forty years a great deal of knowledge and objects of the past of this extreme region of America. His observations of the biological evolution throughout geological times... are included in hundreds of publications... Such a great work will require the thorough study of his scientific papers... in order to appreciate correctly this wise man's merit and work carried out by his privileged mind...

His collections include almost all Argentine fossil mammals and all the pieces on which Dr Florentino Ameghino based his vast paleontological nomenclature. Nobody could study the organization of missing species of the American Southern soil from the oldest times without

consulting those collections.

But the State cannot delay a single moment the acquisition of everything which helped this noble activity increase the human knowledge of the means he cultivated with so much love and talent: his personal collections, his library and manuscripts. If we just get pleased with a monument and let his collections be taken abroad, the Nation will suffer a serious damage.

III. National Scientific Service.

This bill was introduced on September 25, 1912, together with Miguel S. Coronado, Manuel S. Ordoñez and A. Echegaray.



Florentino Ameghino.

In its articles, it was established that the National Scientific Service would carry out the topographical, geological and biological survey of the National territory and would conduct the necessary researches to achieve a complete knowledge of its natural resources. This organization would be chaired by a Director appointed by the Executive, with the consent of the Senate, who had to be a relevant representative of science, from our country or abroad, as well as a highly-recognized manager.

When he introduced this bill, Moreno set forth its principles in a long and conceptual speech:

Law 3727, which organizes national ministries, does not include any express rule about which will be in charge of the scientific and systematic study of the national territory.

We do not have either laws regulating, in an orderly plan, the exploitation of natural resources and, consequently, efforts are useless and there is a waste of time and money in disorganized government departments... Neither the military map nor the Department of Mines and Geology, because of its poor organization, can fulfill this task. What the country needs is a special organized service with permanent resources so as to be a safe guide to the development of our actions...

Many years have already passed since the first attempt to begin an overall survey of the land. Much has been discussed about the way to carry it out but nothing important for the Nation has been done, except for the map of some regions of reduced areas drafted by the general staff of the Army... The province of Buenos Aires has made a topographical map of only a fourth of its whole extension...

This lack of general knowledge of the soil is, to our opinion, the main cause of many mistakes made by the Honorable Congress and by the Executive when they try to apply on the land the regulations of the former and when they take initiatives related to the soil and its use for the population and industry.

We all know what the official measurements have been and are. The published results show their little value. The official negligence in these respects is unbelievable.

It is time to react and not to base the sale of public land on drawings as those used to sell the state lands close to the Port of San Antonio and to Alcheta, whose money must contribute to the expenses of Law 5559. With such drawings, how is it possible that officials could comply with their duty? How is it possible to make the purchaser of public land stop gambling at the lottery, with highly detrimental effects on the national economy, since he buys cheap land when it is useful but leaves it when it is not good? We can mention hundreds of examples like this.

And if we consider the partition of land entrusted to the Ministry of Agriculture or the works of the Ministry of Public Works, we find badly designed railways, incomplete works due to the lack of previous general studies... An example: when one of us visited the Island of Choele Choel about thirty seven years ago, one found, in the high part of the valley, huge willow trunks pushed there by the waters of the Rio Negro. Authorities were warned about this danger but nothing was done and, since then, some important floods have devastated those regions. No relevant researches have been carried out in the upper basin of the Neuquen river, a region that today, from the topographical point of view, is less known than many regions in wild Africa.

Tierra del Fuego is still almost unknown in its economic possibilities as well as in its geography. At present, Tierra del Fuego has an unpopular name. It is better known for its prison than for its factories, in its south; in the north, large estates, still uninhabited rich lands, do not contribute as they should to the national prosperity... The same happens with Santa Cruz. The government does not have sufficient data to form an opinion on the use of the land, the exploitation of the physical and geographic features of the valley of Rio Gallegos, which together with the development of its port, will have valuable conditions for the security and prosperity of the Nation.

Irrigation works are being carried out throughout the national territory without proper data. These works cannot be done without previous general studies of the land. Disregarding them means a waste of money and a danger for the life of the population who use these services.

There are lands which have recently been sold by the state to raise cattle at nine thousand pesos in long-term installments although they have woods

worth more than half a million... This waste of public money is a consequence of the lack of study. While in all the countries, it is the State which studies the conditions of the land before selling it, here it is the individual who generally analyses it before investing, mainly in the cases of big enterprises. Private railway companies have more information about our lands than the State itself and, even more, forest companies, which have paid for thorough explorations for many years in regions still unknown for the State.

Theodore Roosevelt has said: "forest reserves must be saved for the use and



Landscape of Tierra del Fuego. Present photograph.

benefit of the Nation, and not to for the greed of a few". In the Chacos, the official ignorance has left aside reserves and has given to the greed of a few hundreds and thousands of leagues, causing a serious damage to the future of our country. Everyone who visits the regions in the north will confirm the mismanagement of the forest. Everyone who visits the Andean slopes will be surprised at the vast areas of burnt forests, attributable to the neglect of those responsible for protecting them. Almost all the European nations have maps in great detail; the United States have made maps of three fifths of the whole country; the geographic survey of their countries has already begun in South America, Venezuela, Bolivia, Chile, Uruguay and Brazil. Our country is a hundred years old and we have not determined yet its geographical position, extension, height and features of plains, mountains and rivers of the coasts where the population lives.

There are many lands available for cultivation of most noble crops, which are disregarded by that empirical attitude that, under a false concept, benefits unworthy private interests, generally to the detriment of the nation. This is the feeling we got when we visited the Chacos.

Our country, as a new nation, is wasteful: the easy acquisition of wealth has brought about the lack of concern for the future... Today the ignorance and disinterest cut down our lands and our forests; they insist on throwing our waters to the sea; we become criminals...

In the United States, the great movements begun by the governments, backed up by people, called Reclamation Service and Conservation Service, are based on scientific works similar to those planned for our country and their principles are: "we recognize the right and duty of this generation to develop and use the natural resources of our land; but I do not recognize the right to waste them, or to rob, by wasteful use, the generations that come after us". Physically our soils are similar and, if we use them scientifically, we will improve arid lands, we will conserve the water, we will supply irrigation, we will not throw a single drop to the ocean, we will take care of our forests...

The National Scientific Service, which is proposed, will be the main source of information for every governmental and military department of our Country, and it will allow the use and protection of its natural resources and increase their richness for the benefit of its people.

IV. Agricultural Colony.

This bill was introduced on September 25, 1912, together with Miguel S. Coronado, Manuel S. Ordoñez and A. Echegaray.

It proposed the expropriation of the lands in the area located in the limit with Paraguay, on the right bank of the Pilcomayo and Paraguay rivers; these lands appear as private property and their extension is of about 25 leagues. Moreover, according to the bill, the Executive had to order their topographical survey and the study of the lands for the settlement of an agricultural colony and that lots had to be sold to families of settlers that proved their capacity, at a price which would be that of the expropriation value plus expenses for studies and measurements.

When he introduced it, Moreno stated:

I suggest the bill we introduce today based on the observation of the great

national needs. During a trip to the Chacos, we realized the lack of planning on the part of the Congress and of the Executive of the future of these lands, as well as of other regions in our country, which have been sold without taking into account the needs for creating urban centers and for keeping state lands for the development of the Nation.

This is a farsighted bill. The lands of the angle formed by the Pilcomayo and Paraguay rivers should have never been sold the way they were.

The lands of the north territories are probably the most fertile of the Republic. If they are well-studied and exploited, they will produce an incredible wealth. This is not an exaggeration after observing the crops and the quality of cattle they produce at present...

V. National Park of the South.

This bill was introduced on September 25, 1912 together with Miguel S. Coronado, Manuel S. Ordoñez and A. Echegaray.

This bill proposed the expropriation of the lands in the region of Lakes Nahuel Huapi and Traful, to reserve them as National Park, and established that the Executive would carry out the topographical, hydrographic, geologic and botanic surveys, to optimize the use of these lands for the benefit of the community without greatly changing its original appearance.

When he introduced it, Moreno stated:

The expropriation of private lands is urgent. Because of the lack of knowledge about those regions, the Nation has sold, to the interests of just a few, the most beautiful and rich Andean jewel... If this expropriation is delayed, the value of these lands will increase quickly as the railways come closer or when they reach the lake... The cost of this expropriation comprising about fifty leagues will be relatively low. The Town Hall has surely invested a larger amount in the acquisition of some of the buildings on the streets that need to be widened...

VI. Experimental Agricultural Stations.

This bill was introduced on September 25, 1912, together with Miguel S. Coronado, Manuel S. Ordoñez and A. Echegaray.

It proposed the creation, in each national territory, of experimental agricultural stations and nurseries dependent on the National Ministry of Agriculture.

The articles established the scientific and practical researches to be carried out by these stations for a better use of the soil in order to improve the quality and yield of the production.

In his long speech in the Chamber, Moreno particularly referred to grain production, underlining that in other countries, such as Canada, despite the disadvantages of its weather and the smaller area of cultivable land, they have managed to surpass Argentina not only in yield per surface unit but also in production volume.

Statistics reveal that Argentina produces annually four million tons of wheat, five million of corn and six hundred thousand of flax. These figures may arise optimism but, in fact, they show that Argentina is at the bottom in terms of production per hectare and that the surface unit of the Argentine land renders very little for the farmer.

In Canada, the yield per hectare of wheat is 1,450 kg, while in Argentina is 084; in 1890, Canada exported fresh fruits with a value of 999,000 gold pesos, and in 1910 this amount increased to 4,417,000 pesos. We import fruits from Europe and neighboring countries. The same happens with potatoes: in 1890, Canada exported to the value of 495,000 gold pesos and in 1910, of 1,333,000 pesos, while we import potatoes from Europe and even from Uruguay.

This shows that although the natural conditions in Argentina are much more favorable than those in Canada, this is not a guarantee of superiority for the future, even though in Canada, for at least five months a year, the land is frozen and they cannot plow or cultivate.

Why does Canada produce more than Argentina though the weather disadvantages? Which is the cause of their progress? There are many factors which contribute: scientific and technical studies in their experimental stations; the organization of its agriculture that consists of a rural class made up of owners grouped in agricultural societies with more than one hundred thousand members; the efficient help of the government through credits for agriculture.

The agricultural criterion, which gives settlers who do not have their own land the means for living, buying seeds, animals and tools, for sowing and working their lands and then for harvesting and transporting their crops, will make possible an immediate progress without having to wait long for the subdivision of the large estates. Agricultural schools, colonization laws and credits for agriculture are three indirect but very efficient measures to improve agricultural production.

Experimental stations have not been established in the country so far due to the lack of stability of governments and because there has not been a uniform criterion in the Ministry of Agriculture. Each minister, instead of going on the former minister's works, wants to change them completely... In Canada, experimental stations, created by Law, have been working since 1886.

Moreno finished his speech summarizing the purposes of this bill as follows:

1. To prove the convenience of cultural methods and mixed systems of improved exploitation.

2. To acquire and spread useful and practical knowledge among farmers.

3. To produce and spread the best seeds, plants and animals.

4. To give the recently graduated agronomists from the schools and colleges in the country the opportunity to get field and laboratory practice in special research branches.

5. To carry out tests and experiments in co-operation with farmers of the area.

0. To encourage and carry out researches and experiments, using all available means, on the principles and uses of Agronomy.

VII. National Parks and Gardens.

This bill was introduced on September 28, 1912, together with Miguel S. Coronado, Manuel S. Ordoñez and A. Echegaray.

It established that the Executive would expropriate forty thousand hectares in Misiones, between the Parana and Iguazu rivers; twenty five hectares in each one of the old Jesuit settlements; up to twenty thousand hectares in those places in the provinces of Jujuy, Tucuman, Cordoba, Mendoza, Corrientes and La Pampa, characterized by different aspects of national soils; and up to two hundred hectares in each of the places in provinces and territories where there were remains of old Indian cultures or related to great events in the national history.

In its article 2, the bill took into account that up to five thousand square kilometers of the state land in each of the national territories would be reserved from selling or renting, in the regions characterized by different soil aspects; article 3 established that all these lands will be used for national parks and gardens.

During his speech in the Chamber, Moreno stated the principles of this bill:

Our country is growing greatly; the population spreads in all directions, destroying everything that seems to hinder its actions... The same that happens in populated centers, where the negligent cosmopolitanism and the general ignorance on the part of native people of the importance of historical objects prevail, holds true with the protection of the great aspects of Nature...

The bill we introduce today tends to stop this destruction and to keep for our children everything that will help them understand the genealogy of the Nation, in wonderful, relaxing and educational environments...

Modern education believes that nothing teaches more than the show of nature; that the education at school must be completed with the direct observation of natural facts...

Article 1 of this bill refers to Parque Iguazu; the Director of Public Places

of this Capital has made an impressive drawing in which he combined spiritual pleasures with the use of natural elements, without damaging the whole.



Iguazu Falls. Present photograph.

When Moreno commented article 2 of the bill, he said: It would be criminal if the imposing forests of the nearby region to Nahuel Huapi and the huge larches close to Valle Nuevo disappeared or if those and other spots such as the ones surrounding the beautiful lakes and the extraordinary glaciers of Lakes Tronador and Argentino, as well as the places near Lakes Belgrano and San Martin were modified...

The Committee of Parks, Gardens and Monuments could be the basis for an important popular association to encourage and promote the respect,

admiration and love for nature and the great events of the Republic, thus strengthening the national spirit...

In a few months we will celebrate the centennial of the San Lorenzo combat and it would be wonderful if the main ceremony is held in the same place, in San Lorenzo National Park, in front of the modest belfry or under the shade of the historical pine tree, establishing the definite cohesion between authorities and people remembering the sacrifice of humble soldiers...

APPENDIX

FIRST ARGENTINE NATIONAL PARK: NAHUEL HUAPI

RESCUE EXPEDITION TO THE SOUTH POLE

POST OFFICE AND METEOROLOGICAL OFFICE IN ORCADAS DEL SUR ISLANDS

MONUMENTS: TO THE ANDES ARMY AND TO FRAY LUIS BELTRAN

THEODORE ROOSEVELT AND MORENO

HIS LAST YEARS

HIS DEATH

HIS REMAINS TO CENTINELA ISLAND



his part of the book refers to some aspects of Moreno's life which have not been widely known and may be described as mere anecdotes. However I think that they are so significant that it is worth mentioning them for a better understanding of his personal qualities.

It is hardly surprising that Moreno, even though he was very busy with the important enterprise he was carrying out, was always aware of the development of society and its several problems. With a progressive spirit, he managed to combine as nobody else did ideas and action and he was always willing to collaborate when he considered his contribution could be useful.

The following events in which Moreno had an outstanding role – some of them with widespread repercussions– show the many aspects of his personality.

ahuel Huapi: the First Argentine National Park. Law 4192 dated July 3, 1903, establishes in its article 1: "To grant Francisco P. Moreno... twenty five leagues of state land in Neuquen as extraordinary reward for his services and in recognition that they have been for free for twenty-two years...".

In November that same year, Moreno donated three square leagues located to the west of Lake Nahuel Huapi to the National Government as reserve for natural park.

This offer was accepted by decree of the President on February 1, 1904, "keeping that area as reserve for national park... without any

possibility of granting concessions to individuals".

This donation was the origin of the first national park in Argentina, thus becoming the third country in the world, after the United States and Canada, which adopted a similar decision to protect natural reserves.

As additional information, it can be said that Nahuel Huapi National Park was definitely established on July 27, 1934, during Agustin P. Justo's presidency, when the Department of National Parks was created, dependent on the Ministry of Agriculture.

The following letter was sent to the Minister of Agriculture by Moreno on November 6, 1903, offering his donation.

Minister of Agriculture Dr Wenceslao Escalante

Dear Minister,

Law 4192 published in the Official Gazette last August 2 grants me, as a reward for my services rendered to the country before my appointment as Argentine Expert in the boundary issue with Chile, an extension of the state lands in Neuquen or to the South of Rio Negro.

During the trips I made to the South in those days with the purposes that were later the cause for my appointment, I admired extremely beautiful places and more than once I stated the convenience of keeping some of them for the better use of the present and future generations, following the example of the United States and other countries which have magnificent natural parks. Today the aforementioned law allows me to own landscapes that, some years

ago, let me foresee the value of these unknown lands under conflict; but they have become Argentine for ever thanks to having known them and I am very pleased to contribute to the realization of these ideals which were born during my work there and developed by observation.

Considering all this, I am writing to you, in compliance with the law, to ask you the protection of an area of three square leagues in the region situated in the limit of Neuquen and Rio Negro, on the west end of the main Fjord of Nahuel Huapi, to be kept as natural park. Therefore, I would be grateful if, once



Nahuel Huapi National Park. Present photograph.

the area is determined, you could accept the donation I make to the country of that area that has the most interesting natural beauties that I have seen in Patagonia. Every time I have visited that region I have told myself that once it became inalienable public property it would soon be a center of great intellectual and social activities and consequently, an excellent tool for human progress. Physical and natural phenomena that take place there begin to attract scientists, eager to carry out their profitable researches in wonderful scenarios of lakes and torrents, huge forests, abrupt mountains, and eternal ice that develop in a remarkable geographic situation... they form a unique set of



Lake Nahuel Huapi. Present photograph.

favorable circumstances to my present purpose in that beautiful land where Mount Tronador joins in its peak two nations, whose link, imposed by nature, will see forever the colossus. Chile has state lands nearby and maybe it would do the same. So, in that quiet magnificence, the inhabitants of both sides of the Andes will be able to find a healthy and suitable landscape and to contribute – together in joint ideas during restful breaks and solace, increasingly necessary these days – to deal with problems that diplomatic documents will never solve, and visitors from all over the world, intermingling interests and feelings in that international meeting point, will benefit even more the natural progress

of the influence that, due to geographical conditions, belongs to this corner of America in the Southern hemisphere.

I make this donation expressing my wish that the present appearance of this area would not be altered and that facilities would only be built if they are convenient for the visitors, whose presence in these places will be beneficial to the regions definitely joint to our sovereignty; their quick and careful use should contribute to lead the future of Argentina in the right direction.

I have the great honor of sending you my best regards, Sincerely yours,

Francisco P. Moreno

escue Expedition to the South Pole. Another extraordinary event, known worldwide, in which Moreno had a decisive participation was the rescue carried out by an Argentine ship of the crews of two expeditions, one Swedish and the other Norwegian, trapped in the Antarctic ice.

In 1903, the scientific world was very concerned and moved about two expeditions to the Antarctic. One of them had left Sweden under the command of Dr Otto C. Nordenskjöld and when it harbored in Buenos Aires for provisions, in December 1901, the Argentine second lieutenant Jose Maria Sobral joined the crew. Dr Nordenskjöld wanted to explore the region of the Beagle Channel in the summer of 1902, to spend the winter and go back the following summer of 1903. As this plan was not fulfilled, it was feared that the ship had sunk or had been trapped in the ice. Later, a second expedition organized in Norway, commanded by Captain Larsen and Dr Anderson as second chief, left for Tierra del Fuego in the ship Antarctic. After reaching Ushuaia and carrying out several researches, it headed to Islas Malvinas [in the United Kingdom, Falkland Islands] to get more provisions and then return to the Antarctic region to look for Nordenskjöld and his crew. Captain Larsen made his voyage schedule known, planning the return to Islas Malvinas by December 1902; as this objective was not achieved, there was concern about the ship and the crew.

Moreno was also worried, but faithful to his personality – he was a man of action – he encouraged a movement to organize an expedition to rescue the crew of the shipwrecked *Antarctic*. Thus, he wrote a letter and sent it to "La Nacion" newspaper; this note had widespread impact and was immediately replied by the government telling him that the President of the country, General Julio A. Roca, had decided to organize an expedition to rescue the *Antarctic*, which would begin the following spring. The corvette Uruguay, conveniently arranged as an icebreaker, was chosen

for the expedition. Led by Captain Julio Irizar, it achieved its purpose successfully, returning to Buenos Aires on December 3, 1903, with the complete crews of both the Swedish and Norwegian ships.

This action carry out by Argentina had a remarkable impact worldwide because of its importance and the members of the Antarctic expeditions particularly underlined Moreno's role, as the main initiator and promoter of such a successful enterprise.

The note that had been published by Moreno was very convincing due to its solid arguments which clearly showed up the impossibility of survival of the shipwrecked crew because of lack of food and extreme weather conditions. He also appealed to humanitarian reasons which made it imperative that our country organized a rescue expedition.

These are some paragraphs of that note published in "La Nacion" on May 6, 1903.

A

Corvette Uruguay.



Corvette Uruguay leaves for the Antarctic from the port of Buenos Aires, 1903.

"The Swedish Expedition to the South Pole, in Danger. The Need of Rescuing it". Francisco P. Moreno. Until today, there has been no news about the return of the "Antarctic". It has either sunk or it is trapped in the ice. The government and people should try to rescue the shipwrecked men...it is our duty. Human solidarity points out our obligation...Our geographic situation is the most favorable to carry out this enterprise... The Antarctic left more than fourteen months ago and it only carried provisions for eighteen; if the Antarctic has not sunk and it is just stuck in the ice, the crew will have vegetables for six months, coffee (so necessary) for four and maybe no preserved meat. Hunger is thus threatening the selfless members of the expedition in such a terrible environment and it is extremely urgent to organize their rescue. The Swedish and Norwegian Antarctic expeditions are purely scientific. No profit motive has taken their members to such dreadful southern regions... This initiative will be welcomed in Sweden as well as in Norway...

Post Office and Meteorological Office in Orcadas del Sur Islands. Moreno was eagerly in favor of the Argentine presence in the Antarctic and, in that respect, he worked very actively for the setting up of the first post office and meteorological office in January 1904, in Orcadas del Sur Islands [South Orkneys Islands].

The previous events that made this objective come true were very curious: in March 1903, a Scottish scientific expedition, on board ship Scotia, was exploring the Antarctic Sea; on March 25, they entered the Orcadas Islands and the vessel got stuck in the ice. To withstand the winter, the men of the expedition directed by Dr William S. Bruce and the meteorologist Robert O. Mossman built a little stone construction where the five members of the crew took shelter. When, at the end of the year, the Scotia could get free from the ice, Bruce went to Buenos Aires for provisions and there, based on his initiative and supported by the British Minister, he proposed the Argentine Government the assignment of equipment of a meteorological observatory installed on the islands.

Having asked the opinions of the Director of La Plata Museum, Francisco P. Moreno, and of the Head of the old Argentine Meteorological Office, Gualterio G. Davis, the President, General Julio A. Roca, decided to accept the proposal. Some days later, by a resolution of the General Director of Mail and Telegraphs, a post office in the Antarctic region was created, appointing the Argentine citizen Hugo A. Acuña, aged nineteen, to work there on an honorary basis as an assistant scientist, according to Moreno's suggestion.

In "Diario del Estafeta Hugo A. Acuña" [Hugo Acuña's diary], it says: "On January 21, 1904, schooner Scotia left for the Orcadas Islands; together with Hugo Acuña, in charge of the post office, Moreno and his daughter Juana Maria, and the Head of the Argentine Meteorological Office, Gualterio G. Davis, were on board of the ship. Before beginning the voyage, Moreno gave Acuña the document of his appointment as head of the Post Office of the Orcadas del Sur Islands – District 24 – Rio Gallegos, together with postal seals, a suitcase and a date stamp. At seven in the evening., they celebrated aboard with champagne, making a toast to a happy voyage and to the success of the enterprise. At quarter to eight, Davis and Dr Moreno, with his daughter, left the Scotia and went hack to the port in the tugboat".

On February 22, upon their arrival at the Orcadas del Sur Islands, the Scottish flag was lowered and then the Argentine flag was hoisted. Argentina was the first country which set up an Antarctic post office and Moreno had the honor to be one of its promoters.

oreno and the Oil in Comodoro Rivadavia. In the article called "Contribución al conocimiento de la historia del petróleo argentino" [Contribution to the knowledge of the



Meteorological and geomagnetic observatory of Laurie Island in Orcadas del Sur.

Argentine oil history], by Carlos Guevara Laval, published in December 1959 in the Oil Information Bulletin, its author expressed: "It has been a long time that the topic of oil in Comodoro Rivadavia has been dealt with... I have realized that behind the historical scene, as regards oil, there are empty spaces to be fulfilled and civil heroes to be acknowledged because of their merits. This is the concern that has inspired this work... compiling as an autodidact background information and documents that I will begin bringing out".

"In this chapter, I will refer to the participation of the distinguished Argentine Francisco P. Moreno... prior to the great discovery of oil in Comodoro Rivadavia on December 13, 1907. This scientist, who by that time had already explored the Patagonia and studied almost all its secrets, forecasted its existence many years before".

This appears in a letter sent by Moreno to the Executive in 1917. When giving useful advice and warnings for the country about mining issues, he said: In 1900, I informed the Minister of Agriculture, Dr M. Garcia Merou, about the existence of coal near San Julian, making him realize that it was convenient not to sell those state lands. From 1896 to 1903, I gave instructions to the neighbors to favor the establishment of Rada Tilly, today Comodoro Rivadavia, so that one day it could become the port to send the products of the Andean region and, at the same time, to search for oil since its presence was much more probable than that of water. I was right because oil was discovered in 1907. Moreno's letter to the Minister M. García Merou in 1900 was answered back in December, 1900. There the Minister thanked his information and added "...that he had tried to cancel the pending deeds within that area and to help the development of studies in search of coal and oil."

Another very interesting and illustrative document is the letter sent to Moreno in July 1914, by Mr. Juan Plate, one of the pioneer farmers who settled in the territory of Chubut, and founder of the premises "Nueva Lubeca" at the foot of the Andes mountain range, who had helped and assisted Moreno several times when, together with other researchers, he was exploring these regions. This letter, which is fully transcribed hereinafter, is a valuable historical document that allows understanding even more Moreno's remarkable personality.

> Caseros 2841 Buenos Aires July 7, 1914

Dr Francisco P. Moreno

Dear Doctor,

As it can be inferred from the newspapers, not only all the country is aware of the importance of oilfields in Comodoro Rivadavia but also it seems that the Government has devised an exploitation plan. It is a great pleasure for me and also an act of justice to congratulate you warmly on this because your clear concept about the needs of the Patagonia and your scientific knowledge have led to the foundation of Comodoro Rivadavia in the first place and then to the discovery of oil.

I am in a position to state this because, following your directions in search of the shortest way to the sea from my ranch (situated in the Cordillera) I explored already in 1899 the then Rada Tilly, today Comodoro Rivadavia. In February 1901, when returning to my ranch from my first trip, with your support, some other landowners and I asked for the foundation of a village in Rada Tilly and the Government immediately accepted it. We have always had your support and good will in all the other improvements we required the Government such as the telegraph, etc.

I clearly remember when I explained to you that it would be of great importance for the newly-established village to have good water nearby and that we thought that water could be found underground since many springs got lost in the slopes of the hill. I remember, I repeat, that when I explained this idea of ours and our wish, you burst into laughter and said: My friend, you are not going to find fresh water; I can almost state this for sure but it is possible that you will find something of equal or more value; I am convinced that there must be oil in these fields and exploration drillings are necessary to find this out; so you should ask for the drilling equipment and I will help you with your request.

And keeping your promise, you explained our request; in October 1903, the long-awaited driller arrived in Comodoro Rivadavia and oil was found in December 1907.

Believing that perhaps you have quite forgotten about your contribution in these matters, I would like to underline these facts, in the hope that remembering them due to their surprising results will bring you deserved satisfaction.

I look forward to that.

Sincerely yours,

Juan Plate

These facts took place between 1903 and 1906, i.e. during the last three years of Moreno's management as Director of La Plata Museum. Therefore, it calls the attention his great capacity for action, which allowed him to focus his interest and energy on so many different issues while he was successfully performing his duties as Director.

Undoubtedly, this shows his thorough knowledge and the outstanding features of his personality: an idealist inspired by true patriotism, love and protection of nature and a deep humanitarian feeling supported by his iron will and perseverance.

nspirator of the Monument to the Andes Army in Cerro de la Gloria. Moreno was member of the National Commission for the Centennial, which in 1906 decided to organize a selection process to build a monument in homage to May Revolution, which was never accomplished. As member, he had the opportunity of knowing the young sculptor from Mendoza, Juan M. Ferrari, who participated in the selection with two works. One of them, Tabare, which represented the triumphant liberty on the summit of the Andes, surrounded by a group of soldiers on horse, was very nice for him and moved him deeply.

Years later, in 1912, Moreno was appointed by the Governor of Mendoza member of a Commission in charge of analyzing the best suitable place for a monument to San Martin. At first, it was thought to build it in the center but he did not agree and stated that it would be better to erect it in a less accessible site so that visitors would go there with the only purpose of admiring it. And he proposed Cerro de Pilar, suggesting the change of this name for Cerro de la Gloria. His proposals, accepted by the Commission, were presented to the authorities. While doing all this, Moreno could not stop thinking about the Tabare of Ferrari; he was convinced that, with some modifications, it could be a wonderful symbol of the heroic deeds of San Martin and his brave soldiers.

Ferrari traveled to Mendoza when he was called by the authorities and began working very close to Moreno, whom Ferrari would later



Monument to the Andes Anny. the War Arsenal...".

acknowledge as an inspirator of this monument.

This participation of Moreno, unknown for a long time, was officially recognized thirty years after his death. The Professor from Mendoza Zabehida B. Avila – who had been a member of the Commission together with Moreno – mentioned his action in the lecture given in the Seminar about Francisco P. Moreno, organized by the Argentine Scientific Society in 1949, in commemoration of thirty years from his death. She said: "...the great sculptor was permanently asking for Moreno's directions and thus we could find them both working together in the workshop of

At the end of her lecture, Professor Avila read a paragraph from a letter sent by Moreno who used to write to her frequently to acquaint himself with the development of the works: This monument, which is my dream and obsession, will have to be the most beautiful of America and it will have to summarize all the glory of our tradition, and especially of Mendoza, whose role was so profitable in its patriotism and in concrete actions.

onument to Fray Luis Beltran. Fray Luis Beltran (1785-1827) belonged to the order of Franciscans and, as chaplain and in charge of the army workmen, he took part in the Chilean revolution. In Mendoza, General San Martin appointed him chief of the artillery park of the Andes Army. His brilliant action deserved the General's acknowledgment. Later he left the church and participated in several battles. In 1820, he went to Peru and fought with San Martin who appointed him Lieutenant Colonel in 1823.

Moreno admired Fray Luis Beltran and, as President of the National Commission for the Centennial of the Andes Army, he thought that it could be a good occasion to pay tribute to him with the construction of a monument. Immediately, in March 1916, he presented his proposal to the authorities which was accepted. The War Secretary let him know that the monument could be cast in the Main Arsenal of War. They congratulated Moreno: "...you are the tireless man who fills the conscience of our people with patriotism to defeat the apathy of the national spirit...".

And, on July 16, he informed the National Commission of the Andes Pass that the sculptor Juan M. Ferrari, the author of the monument in homage to the Andes Army, already had the definite draft of Beltran's figure and reliefs. The budget was twelve thousand pesos, payable in three installments of four thousand each. Ferrari signed a receipt dated July 29, stating: "Francisco P. Moreno gave me four thousand pesos, as partial payment of the total amount of twelve thousand pesos which is the price of Fray Luis Beltran statue".

This brief example, extracted from a longer passage of the book about Moreno written by his granddaughter Adela Moreno Terrero de Benitez, is useful to see his perseverance and capacity for action. The site of monument was finally Paseo de la Alameda, in the city of Mendoza.

he Boy Scouts Association. One of Moreno's concerns was the education of young people. He wanted to make them feel the national spirit deep inside and he thought that one way of rousing the love for their homeland was through joint explorations.

The observation of nature would encourage young people and, at the same time, they would develop the cult of friendship and solidarity.

In 1908, he had the opportunity of meeting Sir Robert Baden-Powell, founder of the Boy Scouts organization with whom he had long conversations.

He was then very eager to organize a similar institution in our country. Immediately he spoke about his project with his acquaintances who were very interested in joining him.

So, in a meeting held in his house located at Caseros 2841, on July 4, 1912, the foundation of the Argentine Boy Scouts Association was decided upon, appointing Dr Francisco Pascasio Moreno as its President. The minutes of this meeting underlined ...*its educational importance as a means of encouraging in the ordinary life of children and young people the interest in open air visits, the observation of nature, the cult of loyalty and honesty, the love for our fellows, our family, our nation and mankind*.

Moreno chaired the Executive Committee until 1916. In 1917, the President of Argentina, Dr Hipolito Yrigoyen, resolved that the association became a "National Institution". heodore Roosevelt and Moreno. In 1913, when Moreno was vice-president of the National Council of Education, the United States former president, Theodore Roosevelt, visited Argentina. On his arrival, he said that he wanted to meet Moreno. Our government decided, with Moreno's consent, to appoint him as his official escort.

They met in the Perez Rosales pass, one of the most beautiful places in the area of the Andean lakes. In this region, when Moreno got together with his old friends, he told them that he wanted the neighbor Indians to go in large groups to the banks of Lake Nahuel Huapi to greet the distinguished American visitor.

However, on the day of the meeting, very few Indians went to that place. When he asked them why, he realized that their attitude was a consequence of not knowing who Roosevelt was. So he insisted on having the meeting and urged his friends that he would also be there and want to greet them.

More than thirty years had passed since he first reached Lake Nahuel Iluapi and very few Indians of those days would remain. However, his name went on being familiar in the tribes because he had visited these regions more than once while he was working as Expert.

In this occasion, a mass of Indians went to the meeting; their voices, shouting Tapago!, the nickname they used to call Moreno, rang in the whole area of the lake. The chronicles of that time said that Roosevelt was astonished at these curious expressions and, moved by their enthusiasm, he joined his voice to the Indian chorus.

Soon after Roosevelt's departure, Moreno received the following letter sent from Asuncion del Paraguay.

Dear Doctor,

Not only do I feel deep respect and admiration for you but also a great personal affection. Your exceptional personality reminds me of identical virtues that my dear friend Jacobo Rus had, apart from the fact that you have done what only few men of each generation are able to carry out."

Theodore Roosevelt

etter to the Minister of Agriculture, Dr Honorio Pueyrredon. Moreno was worried about the misuse of the national resources of our land, about the easy concessions of state lands which had to be reserved for the State; so, on July 30, 1917, he wrote this letter setting forth serious arguments which he had already stated as deputy.

I finish this Memorandum, whose quick writing has suggested me the

convenience of enlarging it and making it in the form of a book. I have lived what I have written in it; while I was doing it, I felt the urge for national interests and, when I finished it, I reconsider the situation. If at the beginning I studied maps of our territory and the neighboring ones, at the end I look at one of the globe. I review what I know about the economic forces of other countries, which can have a bearing in our growth or decline; and I am forced to say how necessary it is not to waste a second to start developing ours, in a way that foreign elements do not damage us. Bolivia, Paraguay and Brazil are already stockbreeding countries and Brazil is also a cereal producer, and they will soon be our rivals in cattle raising. Further North, Colombia and Venezuela will soon have more favorable conditions for this industry, and I have already pointed out the promising development of the sheep in Peru, Ecuador and part of Bolivia. Canadian livestock and agricultural industries produce as much as our country and South Africa is making a great progress. In Asia, at the end of the present war (1914-1918), regardless of who wins it, only Mesopotamia and Asia Minor will produce more cereals than us with the advantage that they are close to populated consumption centers and Siberia is considered as the future biggest agricultural country of the world; moreover the livestock industry is greatly expanding there. In 1893, it did not export a pound of butter and, twenty years later, it is selling more than forty thousand tons. So we should not believe that we will go on being at the top of the list of cereals, meat, wool and leather producers, only with our current activities. Let us think that we should multiply them and that we can manage to do it if we use the land properly.

For this purpose, we should found a great organization to achieve this and better productions, an institution which will study the soil and its capacity, measure the land officially, concentrate its attention on private industries, avoid everything that could be detrimental to people, and which will always have general welfare at the centre of its concern. This institution could include the Departments of Lands, Geology and Mines, Woodlands and "Yerba Mate" Fields, and study the soil and its waters always from a technical point of view, leaving the administrative work in charge of sub departments. It will be easy for the Executive to form a commission of qualified men of good will which would report about the convenience of this institution and, taking into account our geographical location, the physical environment and the possibilities of our soil, could design a program.

Let us organize a movement such as the one carried out in the United States by presidents Roosevelt (Theodore) and Taft, looking for the best way of managing our natural resources without wasting them, and so we will have the wealth to overcome the problems our country is facing today. We still have much and good state land; we should secure the little amount necessary for the first works of this institution and then millions of revenues will be collected compared to the few hundreds which are generated at present. An example. Isn't it incredible that due to the ignorance of those who granted for exploitation leagues which only feed 1,000 sheep pay the same rent as those which feed 6,000? What a waste or misuse of resources!

In my letter to the Minister of Agriculture dated May 28, I urged him to consider the convenience of canceling any and all concessions related to coal and oil. In 1907, President Roosevelt managed to reserve permanently a hundred million acres in his country for public use because of the presence of oil, coal and other minerals. Let us do the same with the lands that have similar contents. Be careful with hoards for trade and political interests! We must also declare the white fuel, the torrent, the cascade as national property and, above all, we must study the land using common sense, changing the present laws and antiscientific methods. Only in this way, we will create the "Great South American Nationality".

Francisco P. Moreno.

is Last Years. In 1903, Moreno concluded his mission as Argentine Expert; he took over again the post as Director of La Plata Museum until 1906 when he resigned and the Museum was incorporated to the newly-founded National University of La Plata.

In 1904, he stopped living in La Plata and settled down with his family in the country house of Parque de los Patricios, in Buenos Aires, where he had official posts.

He was chosen National Deputy for Buenos Aires in 1910. He performed his duties until March 1913 when he resigned and accepted the post of Vice-president of the National Council of Education, because as he himself expressed ... I prefer devoting the rest of my life to help the children of today, either poor or rich, become mothers and citizens who would efficiently contribute to the definite constitution of the Argentine Nation...".

By mid 1915, he resigned from the National Council of Education. The lack of understanding of many officials and the resistance to accept his ideas, encouraged by his progressive spirit which was considered revolutionary for the time in which he set them forth, influenced his decision. Soon afterwards it was proved that he had been right to state them.

At the beginning of the 1910s, his health became weak and his economic situation was distressing. However, his desire to be helpful to society kept him always active and, both as Deputy (1910-1913) and as Vice-president of the National Council of Education, his contributions were valuable.

During his life, his own means were shrinking systematically. He

unselfishly – and anonymously – supported his exploration trips as well as the foundation and development of La Plata Museum when they faced economic situations difficult to overcome.

With the last contribution he made, he spent the remaining assets. It happened when, as part of his charitable work to help poor children of nearby neighborhoods, he decided to build in his country house a place to supply food and primary education to more than two hundred children a day.

He did not hesitate to finance that ambitious project with the sale of seventeen square leagues of the remaining twenty that the National Government had granted him. He had donated three to be reserved for a national park.

It was not easy to make this decision come true. The Department of Lands delayed his request of establishing the limits of his land. It was presumably put under pressure by landowners who were occupying it at that moment. Being a man of action, Moreno took a drastic decision: to sell his shares and rights and, of course, there appeared "generous" interested people.

Later, to avoid the interruption of the works, he borrowed money from banks, including the Argentine National Bank which, on October 17, 1920, sold all his properties at a judicial auction.

During this period, one of the events that affected him very much took place in 1912, when he had to leave his house in Parque de los Patricios. Around the middle of that year, as a consequence of the succession procedures of his father, Francisco Facundo, the distribution of the country house among the heirs began.



Moreno under the terebinth tree of Parque de los Patricios (1912).

The loss of the ancestral house, the "Eden of San Cristobal" as he himself named it, his oasis, a place to relax where he used to think and write in the shade of his terebinth, was very difficult to overcome. And his anguish became even deeper when he thought that the children of the neighboring areas could not go on visiting and enjoying the nature in that place which was so familiar to them.

It was a pressing need to move, and these removals were repeated

more than once. The first house was on 2841 Caseros street; later in 1914, he moved to the house of his daughter, Mrs. Juana Maria Moreno Gowland, and finally to a very poor house located on 3400 Charcas street. Also temporarily he stayed in a country house where one of his children lived in San Luis. He took advantage of his time there to work on some aspects related to the monument to be erected as tribute to Fray Luis Beltran.

At the end of 1914, his health got worse according to a letter dated November 24, 1914, sent to Dr Carlos Bruch, scientist of La Plata Museum and a friend of his.

Dear Carlos,

I was deeply sorry for not having been here. I had gone to visit another doctor as I am feeling worse and worse every day. I think I will have to cancel my work and leave this city for a long time because the weather is not good for me. I cannot sleep and my heart is weaker than before.

Thank you very much for the photographs that I will use in the book I am working on in San Luis.

Thank you very much for everything and I think I do not write longer because I am not feeling well today.

Your old boss and friend,

Francisco P. Moreno

However, in spite of his sufferings, he followed the important events of that time attentively. In 1912, he accepted the appointment as executive member of the National Commission for the Centennial, whose task was ...to know and give the opinion about the site in Mendoza to build the monument to the Andes Army. His outstanding performance in this Commission has already been referred to. Then, in 1916, he was a member of the Special Commission which advised and directed the works related to the monument of Fray Luis Beltran. He also joined the First National Board, created with the purpose of raising funds to finance the works the aviation pioneers Jorge A. Newbery and Angel A. Zuloaga were carrying out. And in 1919, he was appointed as member of the Honorary Executive Commission of the then new Aero Club Argentino.

is Last Days. In her book "Memorias de mi abuelo Francisco P. Moreno", Adela Moreno Terrero de Benitez included some personal documents that illustrate the last part of Expert Moreno's life.

I cannot sleep thinking about the things that must be done to develop and defend the country, and about my lack of funds to make this become clear in

this City which is so foreign for natives... How hard it is to know that life is dwindling so quickly! But, isn't it harder to live without being useful? I would have liked to do a lot more for my country! But how? How? I am sixty years old and without a cent!

Which is the reason of my sad economic situation? I have gone too far in my unselfish devotion to the prosperity and defense of my homeland. If today I regret this excess, it is because of my children. I am leaving this life in pcace, I have not hurt anyone and I have worked hard for my country...

Few days before his death, he asked for a meeting with President Yrigoyen but it was denied. He handed in his personal card to the clerk and he soon returned to ask who had recommended him. Moreno did not answer, turned around and returned sadly to one of his son's house to tell him what had happened. *I always thought that Yrigoyen was a wellintentioned Argentine man but badly-informed*...

A week before his death, he wrote a letter to his friend, engineer Frey, one of his main assistants when he worked as Argentine Expert.

> Buenos Aires, November 1919

Dear Frey,

You may be worried about the telegram I sent Dr Maza asking him to send my camera back as I am going to the South. Disappointed at promises that will never be fulfilled, as no authority wants to see me even though Dr Maza does his best, I am trying to get my own funds to do what we have talked about so many times. I thought about waiting for your return but Dr Maza told me that you will arrive in two or three months.

I am very sorry to go to Huechulafquen, Lacar, Nahuel Huapi, Huachuechageyen, etc. without you. Both together could have carried out a great work for our country but these things are not understood here.

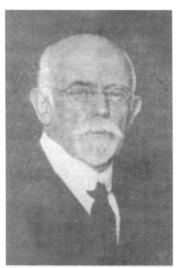
So please write to me when you find it convenient. I am not worried about time or money; I want to do what I have always dreamt of even though I leave my bones there, which would be better than dying in a tenement house. Give me information and orders, especially for Nahuel Huapi, in all its corners.

I hope to leave at the end of this month or at the beginning of the following. How are your works going on?

Yours truly,

Francisco P. Moreno

A long time later, in 1934, when the Executive introduced a bill in the Deputy Chamber to build a mausoleum in National Park Nahuel Huapi, as a tribute to Expert Moreno, engineer Frey sent this letter to one of Moreno's children. "The preceding letter was sent to me to Victoria in central La Pampa while I was surveying that territory; Dr Maza was the Director of the Department of Lands then. Dr Moreno had always wanted to make a new expedition to the Nahuel Huapi region. He wanted to organize the topographical study of the whole area, so that it could be the basis for its better use, land division, building of roads and railways, and the settlement



Francisco P. Moreno in his last days.

of industries using raw materials of the region. He wanted to carry out the colonization plan of Bailey Willis, not to his vast extent but with some modifications adjusted to the Argentine environment. As he lacked financial resources to travel on his own, he commented this to Dr Maza, who understood Moreno's proposal and created the Technical Division of the Department of Lands, whose head would be Moreno. However this could not be done despite Dr Maza's good will because he found the Presidency reluctant to appoint Dr Moreno. Disappointed, he decided to travel on his own and, to afford this, he sold famous paintings and he wrote a letter to me asking me to get his camera back. He wanted to travel with me but waiting for my return meant missing the best season and so he decided to go alone.

Aoreno in his He could not fulfill his wish of traveling again to his dearest Nahuel Huapi where, as he himself expressed, he wanted to die. Few days after writing this letter, he died.

This letter is a document since it reveals his last will: to rest forever in Nahuel Huapi."

> San Carlos de Bariloche June 26, 1934 Emilio Frey.

is Death and Burial. On November 20, 1919, in the school of Barracas, whose principal was Sara Abraham, they celebrated the end of term. Obviously, Moreno, patron of the school, was one of those present. In photographs which were taken in that event, he showed his tiredness and sadness in the eyes.

Mrs. Sara Abraham talked with Moreno animatedly; she invited him to participate the following Sunday in a tour with the students to the Delta, which would take place on his well-known steamer *Vigilante*, the same one that, in 1879, he received from the Government for an exploration of the territories of the South.

Moreno, pleased, accepted her invitation: on Sunday, he said, I will be

there. But he could not: the death found him the previous day, on November 22, 1919.

He died as a consequence of angina pectoris. Although he was ill, he went on collaborating unselfishly when he was needed until his last days. That is why he accepted being the chairman of the Fine Arts Society, which demanded his support to overcome the critical situation it was facing.

The news about his death was spread quickly all over the city and, a large number of friends, many scientists among them, went to the funeral house to show their respect and admiration to such an illustrious man, although astonishingly there were no official authorities, according to the expressions quoted herein below of a newspaper of the time. The Executive did not pass any decree due to his death or hold an official ceremony in his honor.

"From the Presidency, with the detrimental effects to the culture of our country, there are hatreds and narrow-mindedness, which could be a shame even in a neighborhood committee. They do not even stop in front of death; in the august moment in which mercy helps to understand, these feelings are sharpened and exacerbated. Yesterday, November 23, 1919, the day of his burial, the Executive did not send any member of the government, delegate or a single representative to the burial ceremony. Francisco P. Moreno, a patriot who spent his personal fortune at the service of Argentina, who received important awards as a man of science, who rendered altruistic services and whose time in politics did not leave in his wake a trail of hatred. The Executive should have paid tribute to this distinguished geographer, awarded in Paris and London, to the patriot whose studies and activities resulted in the fact that rich places are now within the boundaries of our country; to the generous man whose passion for science and his homeland meant a single feeling. The Executive, heaven knows why!, has remained mute."

The day of the burial, a large crowd was present in the cemetery of Recoleta. There were representatives of scientific institutions, friends and colleagues of La Plata Museum, and especially a great number of children and women of the associations dependent on School Councils, of which he had been the main promoter and benefactor.

Among the several speakers during the ceremony, it is worth mentioning some words of Dr Manuel Carles. He had been his mate at the Deputy Chamber.

"...you, young people, who have just begun your life and doubt about patriotism and show mild feelings about your national spirit, come to this tomb to learn that the nation is in the guts of the land. And to feel it, you must wish its triumph and suffer its problems, you must look up to find the pure ideals in the intention, unselfishness, the blessed unselfishness which is the supreme virtue of patriotism. Come to this tomb and you will find the way to continue the heroic tradition of the Nation."

This would not be his final resting place; twenty five years after his death, his remains were definitely buried on Centinela Island, in the shade of ancient woods and on the banks of Lake Nahuel Huapi. His wish expressed in the letter sent to engineer Frey, some days before dying, was then accomplished. In that letter, he told him about the expedition to the Lake he wanted to make: "...I want to do what I have always dreamt of even though I leave my bones there...".

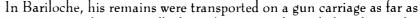
is Remains to Centinela Island. On August 22, 1934, President Agustin P. Justo introduced a bill in the Deputy Chamber to erect a mausoleum to the memory of Francisco P. Moreno in the National Park Nahuel Huapi. The bill was unanimously approved but it was disregarded

for many years.



View of Island Centinela. Present photograph.

erected to his memory."



the City Hall where there was a funeral chapel. On the way, the Army troops paid tribute to him. On January 22, soldiers carried the coffin covered by the Argentine flag and Shaihueque, Pincen and Catriel's ponchos, to the ship *Modesta Victoria* to take it to the mausoleum in Centinela Island.

ceremony would be held to inaugurate the statue

In 1939, the Department of National Lands asked the Executive's approval to take on the task of building Moreno's monument. The request was favorably decided upon with the ministers' consent. But the construction was postponed many times until it was finally completed in December, 1943. On January 14, 1944, it was decreed "...to send the remains of Dr Francisco P. Moreno to San Carlos de Bariloche, and they would be placed in the mausoleum in Centinela Island, where a

Moving Homage. In December 1922, a newspaper from Buenos Aires announced that in an auditorium of the Patriotic Schools of Patronato de la Infancia "...an homage will be held to pay tribute to the



His remains to Centinela Island.

memory of Dr Francisco P. Moreno, whose death meant a great loss for the Argentine society and science...".

The article added that Moreno had been one of the founders of those institutions and, also, the initiator of the opening of the schools in Nueva Pompeya, in the parish of Velez Sarsfield and founder of General San Martin Association.

The children from the schools went to the ceremony and participated in several entertainments, supported by the direction of the Zoological Garden, Labarden children's theater, and the City Hall band.

The ceremony in the auditorium of the Patriotic Schools began at five o'clock, and a portrait of Dr Francisco P. Moreno was publicly uncovered in the room named to his honor.

In this ceremony, his friend and secretary, Mr. Clemente Onelli, gave a moving speech, a part of which is quoted here:

"It is not the civic funeral of Francisco P. Moreno what we are holding in this building... it is a party, a party for innocent children and a way of cheering up these poor kids; and a way of honoring Moreno, discreetly and whose initiative could have only been conceived by a woman. Here we are not holding the civic funeral ceremony of the naturalist, the geographer, the peaceful conqueror and the artist who felt the Argentine Art; on the contrary, none of these are remembered here but his great kindness to helpless children. We have prepared activities for the children to have fun, so as Pancho Moreno can play happily with them, as he used to do when he was alive... You have met here today so that the children, in their innocent way, can honor Moreno's memory... and so that you, who knew him and shared his noble ideals... commit yourselves to make every possible effort and continue the selfless work he began...".

"When one daughter got married, the wedding present was thirty sewing machines to be delivered among the women in need who went to the parish. When his nieces got married, the present from Moreno was small suits and aprons with a four-word card: "for your poor children".

"Reluctant to social life, he pleasantly accepted all invitations to modest parties at poor schools, especially if he knew that the teachers or principal sacrificed themselves for the benefit of helpless or undisciplined children".

"This man was not a school teacher and he had not studied to be one; his life was formed with the distresses of his travels to the desert... and among waterfalls and abysses of the mysterious Cordillera; after living a exhausting life... he received the great honors of glory, recognized to a greater extent and particularly more sincerely in other civilized nations. The yearning for his youth, the desire to live at least one quiet moment, his life there under the terebinth that had grown up while he was traveling, led him to explore the lands of the city, unknown lands, half of the year flooded and that the popular fantasy called "the neighborhood of the frogs", but there was human misery in its most humiliating aspects rather than frogs. This is why and how he began the generous work you all know about and that you have increased and consolidated with your perseverance and self-denial".

Clemente Onelli concluded his speech as follows:

"I should finish here but it seems to me that until rich Argentine people, today with no so much effort, visit the beautiful Argentine South where, thanks to Moreno, the Argentine flag is fluttering, it will be good to remember when looking at those landscapes that Moreno, before protecting abandoned children, was the geographer who settled for ever the boundaries of our Nation."

CHRONOLOGY

- 1852. Francisco Pascasio Moreno was born on May 31 in Buenos Aires.
- 1863. He entered a boarding school, Colegio San Jose, together with his brothers, Josue and Eduardo. He stayed there for three years, a period during which the reading of travelers' books aroused his thirst for adventure.
- 1866. His father enrolled the three brothers in Colegio Catedral del Norte, whose principal, Monsieur Chanalet, had a little museum.
- 1867. He decided to set up a museum together with his brothers in the watchtower of his house, at the corner of Bartolome Mitre and Uruguay streets. His father agreed and the museum was opened with a collection of colorful jaspers and stones.

With his brothers, he interviewed the director of the Museum of Buenos Aires, Dr German Burmeister. He visited them back and was delighted at the collections. To encourage him, he named a fossil after his name: Dasypus Moreni.

On December 27, his mother, Juana Thwaites, died due to an epidemic of cholera.

- 1868. His two brothers decided to "terminate the agreement", and Pancho was the only director and owner of the museum, now called Moreno Museum.
- 1870. The family moved to a country house in Parque de los Patricios. Moreno increased his collections with explorations to Lagoon Vitel.
- 1871. As the yellow fever epidemic increased, the family moved to Chascomus and stayed in a house that an uncle-in-law, Leonardo Gandara, had on the banks of Lagoon Vitel.

During the months they lived there, he stepped up his explorations. The

collected material occupied forty boxes.

- 1872. His father, who encouraged him greatly, decided to construct a special building for the museum. It was opened in December.
- 1873. He traveled for the first time to the South, to Carmen de Patagones. He collected several pieces for his museum.
- 1874. Encouraged by Burmeister, he sent Professor Pablo Broca, founder of the Anthropological School of Paris, a description of his collections.

Professor Broca published his comments in Revue d'Anthropologie of Paris, Volume II, Year 1874.

He was appointed Corresponding Member of the Academy of Exact Sciences of Cordoba when he was only twenty-two years old.

In August, he was a member of an expedition which left Buenos Aires on brigantine Rosales to Santa Cruz, with a stop in Carmen de Patagones. He returned in December.

- 1875. He began a trip to Lake Nahuel Huapi on September 25. He was the first white man to reach the lake from the Atlantic (January 22, 1876).
- 1876. He arrived at Las Flores in March, returning on "exhausted horses" because of the proximity of Indian attacks. In this exploration, he traveled almost 4000 km on horseback.

He carried out several explorations in Catamarca and Santiago del Estero, and, on October 20, he went aboard schooner Santa Cruz towards the bay of Santa Cruz. He arrived at Pavon island, 50 km from the river mouth, on December 21.

1877. On a boat crewed by seven men and pulled by horses from the bank, he began going up the Santa Cruz river on January 15.

On February 15, he arrived at its source, which he named Lake Argentino.

Later, he discovered a lake and named it San Martin; he surveyed Lake Viedma and baptized the Chalten with the name of Fitz Roy Mount. And he called the dominating hill of a region nearby the lake Felix Frias Mount.

On March 16, he began the return trip to Pavon island where he arrived on the nineteenth. It only took him twenty-three hours to navigate along 300 km.

From the island, he went to Punta Arenas, 500 km on horse, and from there to Montevideo on steamer Galicia. He arrived in Buenos Aires on May 8. He donated his collections to the Government of the Province of Buenos Aires, and these became part of its patrimony as the Anthropological and Archeological Museum of the Province of Buenos Aires, and he was appointed its Director.

1878. The National University of Cordoba granted him the honorary degree of honoris causa Doctor.

He was named Honorary Member of the Anthropological Society of Berlin.

1879. He was appointed Head of the Exploration Commission of the Southern Territories, and he traveled from Buenos Aires on steamer Vigilante in October. Second trip to Lake Nahuel Huapi.

From Viedma, on November 11, he began traveling by land to the Southwest, first towards the Cordillera and then to the North to Lake Nahuel Huapi.

1880. During this trip, he gave the name of Juan Maria Gutierrez to a beautiful lake as a tribute to his favorite teacher (January 22).

He was captured by a group of Shaihueque's Indians on January 23. He was a prisoner until February 10.

On February 11, he escaped on a raft along the Limay river.

He arrived with his two mates at the military fort situated in the confluence of the Neuquen river on February 19.

He began the trip back from Choele Choel, on horse, on February 20.

On March 9, he got to Las Flores after traveling 1500 km.

He arrived in Buenos Aires by train, on March 11, at the same place where he had left in October 1879. He had to be carried on a stretcher due to his serious physical condition.

He stayed in bed for three months to recover his health. Then, he traveled to Europe where he stayed about a year.

1881. During his stay in Europe, he attended courses given by Professor Broca at the University of Paris.

He visited the museums in this city and the British Museum in London.

The Geographical Society of Paris made him a member and gave him a gold medal.

The Commercial Geographical Society of Paris gave him the Crevaux medal.

He made a map of the Patagonia and wrote a report about the situation with Chile, at the request of the national authorities.

1882. He began a series of explorations (1882-1884) in San Juan, Mendoza and Catamarca, in the regions whose boundaries were under discussion.

He was appointed member of a Commission in charge of constructing public buildings in La Plata.

He suggested the site for the future museum in the area of the Woods and he proposed the general guidelines of its building.

- 1883. The French Academy of Paris awarded him with the academic palms and appointed him official of that institution.
- 1884. He was appointed Director of La Plata Museum, founded by decree of the Governor of the Province of Buenos Aires on September 17, 1884.

In October, the construction of the Museum building began, with the technical direction of the Swedish architect Henrik G. A. Åberg.

- 1885. He married Maria Ana Varela, daughter of Rufino Varela and granddaughter of Florencio Varela, a well-known poet and writer.
- 1887. He organized the first exploration of La Plata Museum to carry out geographical studies in the Andean region.
- 1888. On November 19, La Plata Museum was officially opened to the public. By 1890, it had already become famous all over the world.

The Foreign Affairs Minister, Dr Quirno Costa, offered him the post of Argentine Expert but he did not accept it because he considered he did not have enough experience. However, he was at the disposal of the appointed person to give all his co-operation.

- 1890. In January he published a report called "El Museo de La Plata. Rápida ojeada sobre su fundación y desarrollo". In thirty pages, he described the work carried out by the institution during the first five years.
- 1892. He enrolled as volunteer soldier of Battalion 2 of the National Guard. He was then forty years old.

With the cooperation of the Minister of Foreign Affairs, La Plata Museum began geographical and geological surveys in the frozen areas of the Puna.

1893. He traveled throughout the Puna from the frontier with Bolivia. He wrote a report for the Minister of Foreign Affairs.

1894. Together with the Museum staff, he carried out a geographical and geological study of the Andean region to the west of San Rafael (Mendoza).

At the end of 1894 and until May 1895, at the request of the Minister of Foreign Affairs, he continued with the surveys in the south of Puna de Atacama, in the provinces of San Juan, La Rioja and Catamarca.

1896. In January and until June, leading a group of scientists and technicians of La Plata Museum, he traveled the Andes slopes from San Rafael (Mendoza) as far as Lake Buenos Aires (Santa Cruz). They surveyed more than 170,000 square kilometers of almost unknown lands.

When he returned to Buenos Aires, he wrote his book "Apuntes preliminares sobre una excursion a los territorios de Neuquen, Rio Negro, Chubut y Santa Cruz", with the observations of the exploration of 1896.

In September, the Government appointed him Argentine Expert on the boundary issue with Chile.

1897. At the beginning of that year, he crossed the Cordillera on mule back, together with his wife and four children and his secretary Clemente Onelli.

His wife got typhoid fever and died on June 1, at the age of twentynine.

After accompanying the remains of his wife to Buenos Aires, he returned to Santiago de Chile where he stayed until the end of the year.

1898. In Buenos Aires, together with his geography advisor, Enrique A. S. Delachaux, he prepared the cartographic documents for the Argentine presentation.

He was appointed Honorary Member of the Royal Geographical Society of London and Foreign Fellow of the American Academy of Political and Social Sciences of Philadelphia.

In August, he returned to Santiago de Chile to attend a meeting of experts in the International Office of Boundaries.

Faced with deep differences which made it impossible to reach an agreement, he accomplished a risky diplomatic mission: to manage to organize a meeting between the presidents of both countries in conflict.

1899. On February 15, the meeting between Roca and Errazuriz was held in the Strait of Magellan, on board of flagship O'Higgins.

As a consequence of this meeting, the conversations among Argentine and Chilean diplomats and members of the British Government began in London. Moreno traveled to London to act as a geographical advisor of the Argentine delegation.

Invited by the Royal Geographical Society of London, he gave a conference in which he showed sixty-five photographs taken during the exploration of 1896.

- 1900. He lived all the year in London, with his four children who went to school there.
- 1901. He returned to Buenos Aires with three of his children.

IIc accompanied Colonel Sir Thomas Holdich, Commissioner of the British Government, in a three-month exploration of the Argentine and Chilean commissions.

When this mission finished, he returned to London.

1902. He was appointed Corresponding Member of the Belgian Society of Geography.

Promoted by Moreno, on May 28, a document was signed in order to appoint a special commission to determine on site the demarcation decided upon by the Arbitration Court in its judgment

On November 20, King Edward VII signed the arbitration decision.

1903. According to the proceedings of May 28, 1902, the appointed commissions began the task of boundary demarcation.

Law 4129 (July 1903) established: "To grant Mr. Francisco P. Moreno... as extraordinary reward for his services and in recognition that they have for free for twenty-two years, the possession of twenty-five leagues of state land, in the province of Neuquen ...".

In November of that same year, he donated the National Government tree square leagues to the west of Lake Nahuel Huapi to be reserved as a natural park. This is the origin of the First Argentine National Park.

He promoted the rescue expedition to the Antarctic to save Dr Otto Nordenskjöld and the crew of the shipwrecked Antarctic.

1904. The definite document, by which Argentina got 42,000 square kilometers of lands claimed by the Government of Chile, was written and approved.

He was appointed Corresponding Member of the Italian Geographical Society, Rome.

When he completed his mission as Argentine Expert, he returned to his work in La Plata Museum.

1905. He moved with his family to the country house of Parque de los Patricios.

He kept the gate of his country house opened so that the children from nearby neighborhoods could enter freely, eat fruits from the trees, and also get bread rolls and a soup he offered them daily.

At the end of this year, he began teaching basic lessons: this is the origin of the first Patriotic School.

He sold the lands given by the National Government to finance his activities of social assistance.

He built a big dining room and kitchen and added a classroom and room for the teacher. Soon afterwards, he was feeding two hundred children every day.

- 1906. That year, when the Museum was incorporated to La Plata National University, he resigned as Director.
- 1907. Patriotic Schools were incorporated to Patronato de la Infancia. He was appointed member of that institution.

He was also appointed member of the Commission of the Centennial of May Revolution.

- 1909. He was awarded the Columbus Gold Medal of the American Geographical Society.
- 1910. On May 5, during the presidency of Roque Saenz Peña, he became a National Deputy.

As Deputy, he chaired the Commission of National Territories.

Between that year and 1912, he introduced seven bills that were significantly important and are still up-dated, such as the creation of: agricultural experimental stations, of the National Scientific Service and national parks and gardens.

- 1911. He was awarded a gold medal and a diploma for his collaboration in the Centennial Art Exhibition, in Buenos Aires.
- 1912. On July 4, he founded the Argentine Boy Scouts Association and became its first president.

He left his country house of Parque de los Patricios due to the succession procedures after his father's death.

1913. On March 11, he resigned as National Deputy. He decided to accept the post he was offered as Vice-president of National Council of Education, and he worked there until 1916.

During his period, day nurseries and evening schools for adults were

opened. The curricula of technical schools were modified and the rank structure for teachers was created.

- 1914. His economic situation forced him to move to a very modest house on 3400 Charcas street. His health became weaker.
- 1919. Three days before his death, he sent a letter to engineer Frey telling him about his intention of going to Lake Nahuel Huapi to make a topographical survey of the area.

He tried to have a meeting with president Hipolito Yrigoyen, as he thought he could give him important information; but he changed his mind when being asked: "The President wants to know on whose behalf you are here".

This fact made him think: I have said that Yrigoyen is a good president, but badly informed. Could he have thought that I was going to ask him something for me?

Few days later, on November 22, 1919, he died at dawn. His hurial took place at the cemetery of Recoleta on the twenty-third.

After knowing about his death, the people of the city went to pay tribute to him: friends, groups of children of the Schools and of Boy Scouts, Argentine and foreign intellectuals and scientists, Institutions of Europe and America were present. On the contrary, there was an inconceivable empty space left by national authorities: his death was ignored.

1944. Ilis remains were carried to San Carlos de Bariloche to be placed in a mausoleum built in Centinela Island. The decree establishing this said in its article 1: "Render the official honors of a Plenipotentiary Minister to doctor Francisco P. Moreno...".

AW/ARDS

- 1878. Honoris causa Doctor of the National University of Cordoba.
- 1878. Honorary Member of the Anthropological Society of Berlin.
- 1881. Gold Medal of the Geographical Society of Paris.
- 1881. Crevaux Medal of the Commercial Geographical Society of Paris.
- 1883. Palms of the French Academy, Paris.
- 1898. Foreign Fellow of the American Academy of Political and Social Sciences of Philadelphia.
- 1898. Honorary Member of the Royal Geographical Society of London.
- 1899. He is invited by the Royal Geographical Society of London.
- 1902. Corresponding Member of the Belgian Society of Geography.
- 1904. Corresponding Member of the Italian Geographical Society, Rome.
- 1909. Columbus Gold Medal of the American Geographical Society.
- 1911. Diploma and Gold Medal for his collaboration in the Centennial Art Exhibition, Buenos Aires.
- 1916. Polar Star of Sweden.
- 1916. Olaf Cross of Norway.

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* Published by El Elefante Blanco, Buenos Aires, in 1997.

^{**} Published by El Elefante Blanco, Buenos Aires, in 1999.

La Fundación Museo de La Plata "Francisco Pascasio Moreno" agradece el apoyo de la



SECRETARÍA DE TURISMO DE LA NACIÓN

La Plata Museum "Francisco Pascasio Moreno" Foundation was born in 1987 as a result of an initiative of authorities and professors of the College of Natural Sciences and La Plata Museum and of the community from La Plata.

Worried about the lack of budget for the maintenance of the building of the Museum and the development of its activities, it was thought that the creation of a nongovernmental organization would he a useful tool to obtain financial resources and to have an easy administrative management.

The idea was successful and, on April 2, 1987, La Plata Museum Foundation was formally constituted, with the name of the illustrious founder of the Museum: Francisco Pascasio Moreno. On November 17 of that year, it was registered as a legal entity and its main objectives were established in article 2° of its statutes: to support scientific and cultural programs of La Plata Museum and to maintain its building.

On December 10, 1987, the Administration Council approved the first four programs adopted in agreement with the Museum authorities, such as: the publication of a hook about the history of the Museum, written by Dr Mario E. Teruggi; the reproduction from the Museum's pieces for their diffusion and sale; the construction of show rooms in Paleontological Area and installation of a security system against fire.

In the first five years, these objectives were all achieved and some others: the installation of a pressure water system; the publication of books "Las ideas y la obra de Francisco P. Moreno", written by Dr Alberto C. Riccardi and "El origen del edificio del Museo", written by the Architect Julio A. In this book, Moreno's life is chronologically described, from his childhood until his last days in eight chapters and an appendix. Its reading will contribute to appreciate the features of his personality and behavior, and the magnitude of his work.

This book shows Moreno along his life, working tirelessly for his childhood and youth dreams and ideals. With strong conviction and remarkable perseverance, he managed to overcome great difficulties, and to remain faithful to his principles until his last days. He unselfishly put all his energy to the service of his country and his people.

His legacy was not only his example and ideas but also his extraordinary works. The explorations carried out for more than thirty years, at the beginning alone and then with scientists and technicians of La Plata Museum, allowed to survey more than 200,000 square kilometers of almost unknown lands; his participation as Argentine Expert meant the incorporation of 42,000 square kilometers of regions in conflict with Chile. Moreover, La Plata Museum, founded on the basis of the donation of his private collections, contributed to make our country known since, by the first years of the 20th century, it had already achieved international prestige and it was considered one of the best all over the world.

It is clear that the whole country is in debt with Moreno. It is our unavoidable duty to bring him back to our memory as a true civil hero, a prototype of Argentinity. May 31, 2002, is the best moment to do it since it is the 150th anniversary of his birth.

We think that the best way of paying homage to his memory is to publish this book and also to give his masterpiece, La Plata Museum, its original magnificence, restoring its beautiful building – which was declared National Historical Monument – and remodeling its exhibition rooms.

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La Plata Museum Foundation "Francisco Pascasio Moreno"