

Raimondi en cifras / L'opera di Antonio Raimondi in numeri / Raimondi's work in figures

Lima's Raimondi Museum in Milan, Italy

Presentation

This exhibition has been made possible by the coming together of institutions from Peru and Italy: The Antonio Raimondi Educational Association, which represents Italian culture in Peru; and the City of Milan. The shared curatorship is the product of collaboration between the scientific team of Lima's Raimondi Museum and the Museum of Culture (MUDEC) in Milan.

The organizers wish to express their gratitude to those individuals and institutions who have made this event possible, including: Peru's Ministry of Culture and Ministry of Foreign Relations; the Lima Museum of Art (MALI); the Peruvian collection of the Giurati family; Rome's Luigi Pigorini National Museum of Prehistory and Ethnography; the Museum of the Risorgimento (Milan); Milan's Natural History Museum; and Rimini's Museum of Glances (Museo degli Sguardi).

It is the sum of these efforts which has enabled the combining of resources required to offer the city of Milan the opportunity to contemplate the symbolic return of one of its sons; a man whose talents and force of character brought him many honors in the distant land of the Incas. This exhibition pays tribute to Antonio Raimondi, his work, and the legacy he bequeathed to future generations. At the same time, it celebrates the special relationship that exists between Peru and Italy.

Italy in 1800

At the beginning of the 19th century, the Italian peninsula found itself divided into city states ruled by foreign powers. In the north, in a climate of political and economic oppression exerted by the Austro-Hungarian Empire, a growing wave of patriotic fervor clamored for an independent and unified Italy. The ideals of the Risorgimento [*Resurgence* or *Revival*], as expressed in the political discourse of Giuseppe Mazzini, the military momentum of Giuseppe Garibaldi, and the diplomatic machinations of the Count of Cavour, set out the path towards the creation of the Italian nation.

In Milan, a significant milestone in this process was the bloody people's revolt that raged from the 18th to the 22nd of March 1848. Known today as the Five Days of Milan, this armed insurrection resulted in the temporary expulsion from the city of Austrian troops. Inspired, along with much of Milan's youth, by the prevailing libertarian ideal, Antonio Raimondi took part in the struggle, joining the ranks of the militiamen who fought heroically to expel the invading forces.

Antonio Raimondi

Giovanni Antonio Raimondi was born in Corsia del Duomo, Milan, on September 19th 1824. He was the seventh child of Enrique Raimondi Mazza and Rebecca dell'Acqua Vismara.

Little is known about his education. According to his own account, from a very early age he was attracted to the study of nature. He visited the leading zoological gardens and museums of Europe. In Milan, he often visited the Brera Botanical Gardens, where he immersed himself in the study of botany. It was here that he witnessed the care lavished upon a single Peruvian cactus. It was the impression made upon

Raimondi by this scene which first awoke in him a particular interest in Peru and gave rise to his ambition to explore the land of the Incas.

From Italy to Peru

After participating in the campaign to defend the Roman Republic, and finding himself disillusioned with the world of politics, Antonio Raimondi returned to Milan and began preparations for his journey to Peru. He sailed in December 1849 aboard the Peruvian-flagged brig *La Industria*. He was accompanied by his childhood friend Alessandro Arrigoni, a physician from the University of Pavia. The two men were also joined by Ignazio Maurelli and the painter Eliseo Schieroni. From Genoa they sailed to Nice, and after a voyage lasting seven months, during which they came close to being shipwrecked by a storm in the Straits of Magellan, they arrived at the port of Callao on Peruvian Independence Day: July 28th 1850.

A dream fulfilled: the exploration of Peru

Raimondi's great dream had been to explore Peru and study *in situ* all aspects of its natural history. Shortly after arriving in Lima, his innate ability and evident scientific rigor led to his being retained as a teacher of natural medical history at the Independencia School (the faculty of medicine of the University of Lima). During free time away from his academic duties, Raimondi made short trips into the area around the capital, accompanied by his students. In 1851, he ventured for the first time into the interior of Peru. His journeying would continue for nineteen years, until 1869. He is believed to have traveled some 45,000 kilometers, collecting more than 50,000 biological samples. His account of his travels and the collection he amassed constituted the first major study of the natural history of Peru. The knowledge he garnered made him the first scientist to produce a complete vision of the territory of the new Peruvian republic.

The territory

Peru is one of the world's most biologically diverse countries. The geography of its national territory can be divided into three major regions: coast, highlands and jungle.

In the 19th century, when its territory was sparsely populated and largely unmapped, traveling through Peru was a complicated and hazardous undertaking. On the coast, travelers were obliged to endure the hot sun and the scarcity of water and supplies. In the highlands, travelers were afflicted by the cold, rugged terrain and altitude sickness that came with any journey into the Andes. And the dangers lurking in the jungles included extreme heat and humidity, wild animals and insect-borne diseases.

"Those Europeans and Peruvians who have not visited the interior of the country have not the least idea of the enormous number of difficulties and obstacles faced by the naturalist during his explorations."

Antonio Raimondi
El Perú, 1874
p.4

"After having looked at all of South America, it seemed to me that Peru was the least well-known country at the time. Moreover, its proverbial wealth, its varied territory which seems to combine, in the sands of the coast, the arid deserts of Africa; in the vast highlands the endless steppes of Asia; in the soaring peaks of the major ranges, the frozen polar regions; and in the dense mountain forests, such teeming and luxuriant vegetation, caused me to choose Peru as the setting for my exploration and studies."

Antonio Raimondi

Surveying territory: geography and cartography

After completing his travels (1869), Antonio Raimondi began work on the ambitiously encyclopedic publication that would record the results of his scientific investigations and present to the world the natural history of Peru.

The Milan-born naturalist used as the material for his publication the observations contained in the 195 volumes of his travel log. These notes included the compass readings, number of steps taken, distances traveled and timings employed to calculate his triangulation readings. Raimondi also produced detailed tables containing the barometric measurements that enabled him to calculate height above sea level and maintain a three-dimensional record of his travels.

Raimondi's meticulous compilation of this data resulted in a publication that constituted the first detailed and precise survey of Peruvian territory. His work contains thematic maps, as well as geological, historical and political maps, the annotated details of which include jungle trails, battlegrounds, mining enterprises, etc.

THE GREAT MAP OF PERU

The crowning achievement of Antonio Raimondi's work was the map of Peru printed in Paris by *Erhard Frères* between 1887 and 1897. The map was composed of 38 sheets and at the time constituted the definitive cartographic study of the Republic of Peru. Its monumental character can be appreciated in its meticulous annotations, which in addition to conventional information such as provincial capitals, villages, political boundaries and roads, included the locations of bridges, ports, haciendas, way stations, archaeological sites, missions, and gold, silver, copper and coal mines. The locating of coal deposits was important in an age when mapmakers were required to include in their work the resources needed by existing or planned rail networks.

Raimondi drafted his map of Peru during the last four years of his life. It was his final contribution to the country that had become his adopted homeland. This remarkable cartographic document was the ultimate expression of his self-imposed mission to reveal to the world the natural riches of Peru.

DIVERSITY REVEALED: IMAGES OF THE NATURAL HISTORY OF PERU

As a naturalist, Antonio Raimondi's scientific work was focused upon recording in its entirety the natural history of Peru, including evidence of human activity, both past and present. This overarching perspective gave Raimondi the freedom to venture into other branches of scientific investigation, including archaeology, botany, ethnography, geology, mineralogy and zoology. His fine watercolors and drawings are remarkable for their scientific rigor. This selection represents just a small part of Raimondi's artistic output.

These illustrations serve to reveal both the natural and cultural diversity of the period. Commissioned by the state, Antonio Raimondi shared with Peru's ruling class a vision of how the republic's vast natural resources could be harnessed for the development of what was still a relatively young nation. Taken together, the images constitute an act of appropriation, a means through which the new Peruvian republic was able to incorporate the natural history of Peru into its nascent national history.

"I must say that when I began my travels in Peru there were very few maps of the region, and all those which had been published to date were so imprecise and error-strewn that they were of little use; it was the continual mistakes I encountered during my travels which first motivated me to embark upon this work."

Antonio Raimondi
"El Perú", 1874: p. 66

"...it seemed to me that there was too much for my eyes to take in..."

Antonio Raimondi
"El Perú", 1874: p. 9

"My wishes shall have been fully satisfied, and I shall consider entirely worthwhile the privations this work has cost me, if the mission I have set myself contributes in some small measure to making known the immense natural wealth of this privileged country."

Antonio Raimondi
Introduction
"Minerales del Perú", 1878

Publications: from university work to the multi-volume *El Perú*

In Peru, Antonio Raimondi completed the virtuous circle of the scientific world by engaging in research, teaching and publishing. The Milan-born naturalist conducted all his scientific work in this part of South America, achieving considerable stature as a university professor and publishing major treatises and books.

His books included a manual for botanical study, which he prepared for his students at Lima's San Marcos University. Another book and accompanying map focused upon the mineral resources of the Ancash region, and was published with the support of a famous railroad tycoon with investments in Peru. But it was through direct government support that he was able to publish his most ambitious work: *El Perú*. Conceived as a series composed of twenty volumes, Raimondi would see the publication of just three

volumes of this mammoth undertaking. The War of the Pacific, national bankruptcy and the author's failing health combined to prevent the completion of his ambitious editorial project.

Antonio Raimondi: a cosmopolitan scientist

During his lifetime, Antonio Raimondi was acknowledged in Peru as the nation's leading scientific authority. A number of factors combined to shape his prestige: his status as a foreign-born man of science; his devotion to university teaching; the rigor with which he conducted his research; his contributions to the development of precision instruments; and his unwavering commitment to the interests of the Peruvian state.

As the state's officially appointed naturalist and scientific adviser, Raimondi maintained close relations and an ongoing correspondence with important institutions and scientists whose own interests were closely aligned with those of Peru. He was made a member of the most prestigious and influential scientific societies of his time. The Italian Geographic Society chose to award its first gold medal to this Italian working overseas. In 1878, his collection and catalogue of Peru's minerals was awarded the Gold Medal at the Paris World's Fair.

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The success of Raimondi's expeditions was entirely dependent upon careful preparation. Feed was required for the horses and, among many other items, the naturalist's baggage contained waterproof covers, secure packaging for chemical reagents, adequate clothing and footwear for each geographic region, dry clothing for the nighttime, as well as the many letters of introduction required by individual regional authorities.

- 3 riding horses
- 3 pack animals (mules or donkeys)
- 1 horse saddle
- 2 trunks with large iron rings
- Boxes for storing samples
- Campaign tent
- Provisions, including preserves
- Large rubber sheet
- Assorted ropes (reed rope, jute rope and horsehair rope)

- 1st pack animal: 1 bed, 2 large baskets, 1 camp bed
- 2nd pack animal: 1 campaign tent (not too heavy), provisions, work tools and utensils
- 3rd pack animal: complete portable laboratory, specimens gathered, etc.

Compass

Barometer

Microscope

Hygrometer

Levels

A pair of compasses

Scales

For triangulation: prismatic compass, theodolite and other instruments

Nightclothes

Socks

Spare footwear

Mosquito net

Waterproof oilskin covers for blotting paper

Blotting paper

Chemical reagents for portable laboratory

Pencils

Watercolors

Ink

Notebooks

Blank paper

Medical kit