

*Photo : Guigoni & Bossi, Milano*

H.R.H. PRINCE LUIGI AMEDEO OF SAVOY-AOSTA  
DUKE OF THE ABRUZZI.

1873-1933



THE  
ALPINE JOURNAL.

---

NOVEMBER 1933.

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(No. 247.)

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LUIGI AMEDEO OF SAVOIA-AOSTA, DUKE OF THE ABRUZZI.  
(1873-1933.)

WITH the death of Luigi Amedeo of Savoy, Duke of the Abruzzi, the world has lost a very remarkable personality. In him were blended most happily a lively imagination, an insatiable desire for new ventures and experiences, a keen curiosity for the most varied displays of nature and of life, with an overwhelming energy and activity and with a perfectly balanced intellect and foresight, all which assets made his life one of the most fruitful which have ever been recorded. It is not possible to do justice to all his achievements or describe his life in full in the space allowed to an obituary. His main activity, connected with his service in the Italian Royal Navy in peace and in war, can only be mentioned, in passing, if a sufficient margin is to be left for a short survey of his achievements in the field of geographical and mountain exploration, which have a more general interest. These in themselves would suffice to fill a lifetime, though for him they were merely holidays, occupying the intervals of exacting duty in the Service.

Nearly all explorers have chosen some special field of action ; they have been navigators, mountaineers, or caravan-leaders, and have devoted themselves to one of the continents : Africa, Asia, the New World, or the Polar regions. But the Duke of the Abruzzi cannot be included in any single category or



classification. He travelled in the Arctic and in every continent, on the highest mountain ranges of the world and along tropical rivers, under the most varied circumstances and conditions. Wherever he went, he surpassed all his predecessors and was attended by such constant success as can only befall men with a strong will, a well-ordered methodical mind and an exceptional capacity for leadership.

The son of Amadaeus of Savoy-Aosta, brother of King Humbert of Italy, H.R.H. the Duke of the Abruzzi was born in Madrid, on January 29, 1873, a few days before his father had been obliged to resign the throne of Spain. He went through the regular course of the Naval School, and was a midshipman at the age of 17. Soon after he embarked on a cruiser of the I.R.N. for an eighteen months' voyage in the Atlantic and Pacific. Immediately after his return, in the intervals of a sailor's life, he began his mountaineering education. In two seasons, in 1892 and 1894, he made a series of ascents of the principal peaks of the Levanna and Gran Paradiso, in the ranges of Mont Blanc and Monte Rosa, and on the Matterhorn, which he climbed twice, the second time by the Z'mutt ridge with A. F. Mummery and Norman Collie. He returned to the Alps during the following years, up to 1901, in winter and in summer and achieved several first ascents in the groups of the Aiguille Verte, the Grandes Jorasses and the Dames Anglaises.<sup>1</sup> The Duke had been elected a member of the Alpine Club in 1894.

By then he had already begun to be an explorer, turning to wider fields and loftier undertakings. In the last days of January 1895, during his first voyage round the world in the cruiser *Cristoforo Colombo*, he saw for the first time, from Darjeeling, the Himalayan Range and Kangchenjunga. The aspiration born in his mind at that moment took shape and definite purpose a few months later, when A. F. Mummery lost his life in an attempt to climb Nanga Parbat (26,620 ft.). And in fact, at the completion of the cruise, nearly two years later, the Duke was busy preparing an expedition to the great mountain, when the outbreak of a plague epidemic on the western coast of India and of a widespread famine in the Punjab induced the Government of India to advise a postponement of the plan. Faced by this unexpected obstacle, the Prince

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<sup>1</sup> Point 4472 m., *B.I.K.* (4469 m., *Vallot*), on the S.W. or Brouillard arête of Mont Blanc, was named *Picco Luigi Amedeo* in honour of the Duke, by its conquerors in 1901.



immediately decided to choose a new goal, one in striking contrast with the former, Mt. St. Elias in Alaska, in the Subarctic, covered from summit to base by glaciers that dip their front into the Pacific Ocean. Mt. St. Elias rises to over 18,000 ft., at the crossing of the 60° parallel with the 141° Long., at a distance of 35 to 40 miles from the coast, and marks the N.W. corner of the Alaska-Canada boundary. It is visible from the sea at 200 miles' distance, and was first sighted by Vitus Behring in 1741. Fifty years later, Don Alejandro Malaspina, an Italian captain in command of two Spanish ships, first explored Yakutat Bay, and made a remarkably accurate measurement of St. Elias (17,851 ft.). It was only in 1886 that a first attempt was made to reach its summit, followed in the next five years by three others, led by American and British explorers and all by different routes. None had succeeded, but they had brought back valuable information about the mountain and its glaciers, especially Israel C. Russell in his two expeditions of 1890 and 1891, who definitely disproved the old belief that St. Elias was a volcano. No other attempt had been made since 1891.

In spite of the novelty of the undertaking, requiring a very unusual and complicated outfit, everything was ready in a few months, and on May 17, 1897, the expedition left Italy. With the Duke went U. Cagni, F. Gonella, Vittorio Sella and F. De Filippi, four Alpine guides and Sella's assistant photographer, well trained in Alpine work. Five weeks later, having crossed the Atlantic, the United States from E. to W., and embarked again at San Francisco to navigate the channels of Alexander Archipelago and along the bare coast to the N. of it, the expedition landed on the W. coast of Yakutat Bay. At Sitka, the capital of Alaska, the yacht *Aggie*, chartered by the Prince, had preceded the expedition, with ten American porters and their boss, Ingraham, on board. Ten days before the arrival of the Italians, a rival expedition, led by Mr. H. S. Bryant of Philadelphia, had also landed on the coast of Yakutat Bay. However, they had attained only the lower glaciers of the range when forced to give up the attempt, because of the illness of one of the party.

At the foot of the St. Elias range stretches a plateau, of more than 1500 square miles in surface, and at an average altitude of 1500 ft., entirely covered by the huge Malaspina Glacier, which is fed by the glaciers issuing from the valleys of the range. It is bounded on the E. by the Yakutat Bay, on the S. by the Pacific Ocean. Its frontal moraine, about



95 miles long, stretches at a short distance from the coast, leaving a narrow strip covered by dense forest and furrowed by the streams issuing from the front of the glacier. At one point the glacier extends to the sea, terminating in a sheer cliff of ice 300 ft. high.

The itinerary followed by the expedition on the way up and back crosses the Malaspina Glacier almost due N., to the opening of the valley filled by the Seward Glacier, which flows from the centre of the range. It then ascends the valley to a depression on its western flank, the Dome Pass, beyond which it crosses the Agassiz Glacier to its main tributary, the Newton Glacier. The valley in which the latter flows is closed at its upper and western end by a steep ice slope leading up to a wide saddle, from which rises the great northern ice-covered arête of Mt. St. Elias. Israel C. Russell had reached this saddle in 1891. The distance covered over ice and snow is about 55 miles each way.

The baggage of the expedition had to be carried on the men's backs from the coast across the forest belt and the moraine to the edge of the ice plateau still covered by a layer of snow. Here it was loaded on four sleighs, which were drawn by the men across the Malaspina, up the Seward, over the Dome Pass and across the Agassiz to the foot of the Newton Glacier. This was accomplished in fifteen days. It took the expedition thirteen more days to go up the Newton, every stage having to be covered twice to carry up the equipment, as the sledges had to be abandoned at the foot of the glacier. They were fatiguing marches over the three cascades of séracs and across the intervening plateaus, floundering at every step in the deep powdery snow, in a labyrinth of séracs and huge crevasses spanned by insecure snow bridges. The weather was almost continuously bad with heavy snowfalls and thick fog. At last, on July 28, with the weather decidedly improving, the camp was pitched at the foot of the slope leading up to Russell Col. This was reached on the 30th (12,297 ft.).

On the following day, in 11 hours, they climbed the broad northern arête to the top of Mt. St. Elias, a wide dome covered with ice. The weather was perfect: the unexplored region to the E. and N. of the mountain, a vast panorama of peaks and glaciers, was visible to the distant horizon beyond the imposing mass of Mt. Logan, which Sella photographed for the first time. This photograph was very useful to the American-Canadian Expedition led by A. H. MacCarthy, H. F. Lambart and Allen Carpe when planning the ascent of





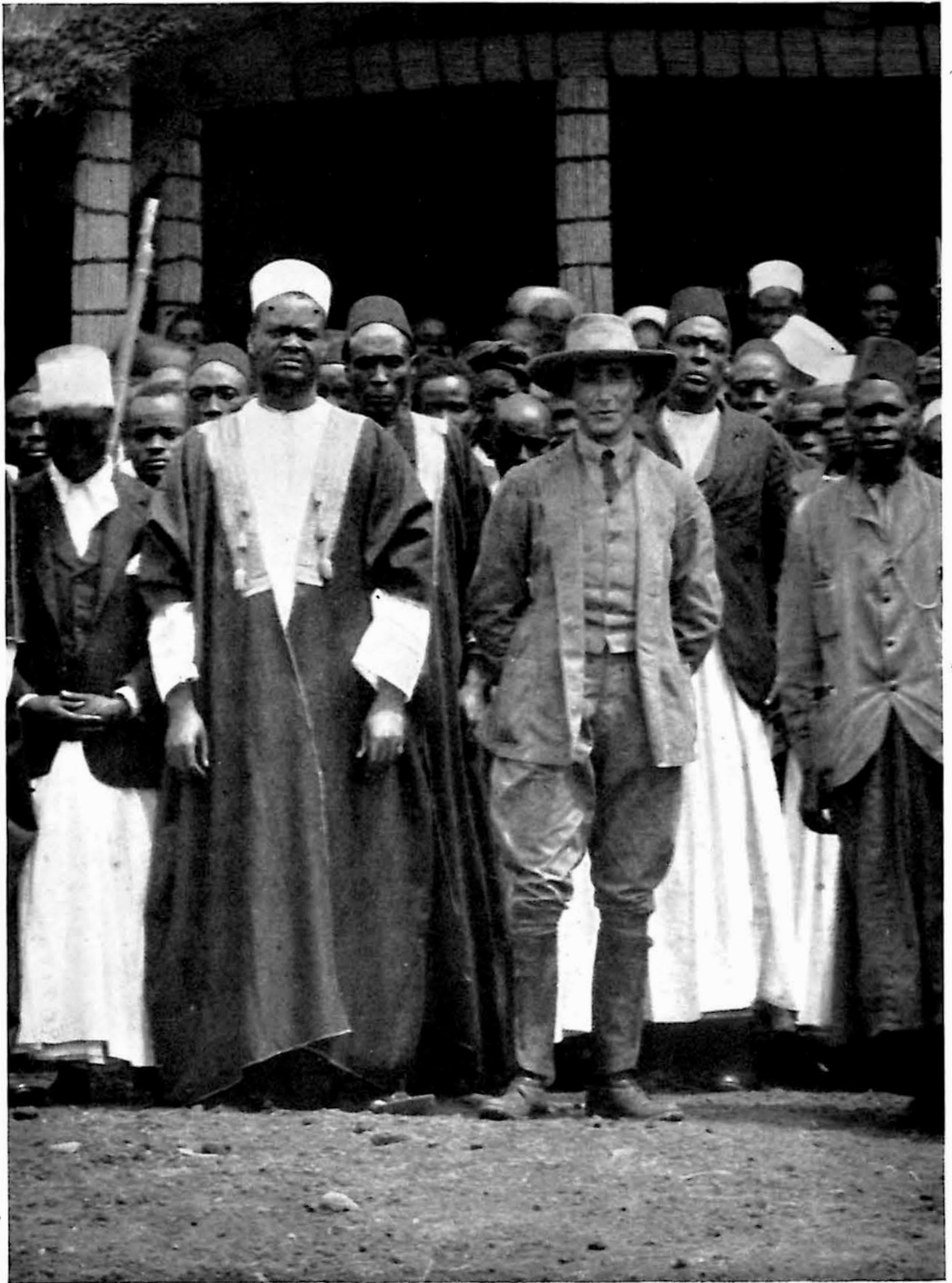
*Photo, V. Sella.]*

H.R.H. THE DUKE OF ABRUZZI WITH THE GUIDE, J. PETIGAX, ON THE SEWARD  
GLACIER.

Mt. St. Elias in the background, July 1897.

*[To face p. 204*





*Photo, V. Sella.]*

KING KASAGAMA AND H.R.H. THE DUKE OF ABRUZZI AT TORO (FORT PORTAL),  
UGANDA, AUGUST 1906.



Mt. Logan, which they accomplished successfully in 1925. The Duke took the bearings of two large massifs towards the N., which he named Lucania and Bona. The latter was climbed in 1930 by Allen Carpe, A. M. Taylor and Terris Moore. The observations made by the expedition gave to Mt. St. Elias a height which agrees with that of 18,100 ft. obtained by Israel Russell by triangulation, with a difference of less than 7 feet. The expedition also brought back a series of meteorological, climatic, and glaciological observations, a collection of the minute glacier fauna and of minerals, besides ample illustrations of the group.

The next enterprise of the Duke of the Abruzzi, the Arctic expedition, might be thought to be a sequel and derivation of the Mt. St. Elias undertaking; but it was, in fact, of an entirely different nature. Italy still lacked an Arctic National Expedition, though at various times a number of Italians had taken part in expeditions organized by other nations. The Duke's design might have appeared bold and even rash. A young man of 26, without experience or any special preparation, except what he might have acquired by study, had to compete with men such as John Franklin, the two Ross, Edward Parry, Francis Hall, Dr. Nordenskjöld and Nansen—men who had returned again and again to the Arctic and spent years of their lives in investigating its problems. It had taken more than a century for Nansen to gain less than  $3^{\circ}$  towards the N., at the cost of untold sufferings and sacrifices; between Phipps, who in 1773 had reached  $80^{\circ} 48'$  to the N. of Spitsbergen, and Lockwood, of Greely's expedition, who had reached  $83^{\circ} 24'$  on the northern shores of Greenland, in 1882. Fridtjof Nansen, by his wonderfully planned scheme of letting his ship drift with the Polar pack in which he had deliberately allowed her to be enclosed, had succeeded in gaining another  $3^{\circ}$  farther than Lockwood. And the Duke was actually planning to surpass Nansen, not by repeating the attempt which had given him such an advantage over his predecessors, but by the old method of making his way to the N. on foot from an Arctic land—a method which had given such poor results to all former explorers.

The preparations were pushed forward rapidly, but the plans were not communicated to the public in lectures or articles, or discussed in geographical societies. By the middle of July 1899 the ship, a whaler refitted for the special purpose and rechristened *Stella Polare*, had left Archangel with the



expedition, the dogs and the full equipment. With the Duke went ten Italians, Commander U. Cagni, Naval Lieut. F. Querini and Dr. A. Cavalli Molinelli, four Alpine guides, a boatswain, a sailor and a cook. The ship's crew consisted of nine Norwegians. Three Polar expeditions led by Peary, by Sverdrup and by Wellmann were in the Arctic when the Italian one started, but no news of them had reached Europe at the time.

In seven days the southern extremity of Franz Josef Land was reached; then, in the British Canal, the ship bringing back Wellmann's expedition was met. The leader had broken his leg by falling into a crack of the pack ice, and he had lost most of the sledges and the dogs in an ice-pressure. In spite of the great amount of floating ice, the *Stella Polare* succeeded in making her way to the N. through Queen Victoria Sea, where no other ship had been before, to a wide stretch of open water beyond the northern extremity of the archipelago, at 82° 4' N. Lat. On August 8 the ship was anchored in a small open bay on the W. coast of Prince Rudolf Island.

While winter quarters were being prepared in the ship, the Prince made a survey of the island, which led to the reconstruction of its map. Soon after his return to the base, in the night of September 7-8, the ship was caught in the grip of the ice and pushed towards the coast by the drift of the pack. She might have been entirely wrecked, with tragical consequences to the expedition. In 24 hours of feverish work all the equipment and provisions needed for the winter and for the spring advance were brought to land, where a large hut was built, and everything possible was done to put the ship in the best condition for her safety. By the middle of November the polar night had set in. Everyone was kept busy by scientific observations, care of the dogs and by sledge excursions to train animals and men. Unfortunately, during one of these trips, a party led by the Duke was overtaken by a storm. The Prince sustained a bad fall, had a hand frozen and, gangrene setting in, two of his fingers had to be amputated. For some weeks he could still entertain hopes of being able to lead the expedition to the N.; then he had to resign himself gradually to a bitter renunciation, and the leadership was entrusted to Commander Cagni. The expedition was prepared with the minutest care. A start was made on February 21, 1900, but was frustrated after two days by the extreme cold and the instability of the ice. This attempt was useful as an experiment, and led to various improvements in the equipment.



Finally, on March 11, the expedition led by Cagni definitely departed for the N. Now began for the Duke the most anxious period of the whole campaign. According to plan, the expedition had been arranged in three groups. The first of these, under Lieut. Querini, was due to return to the base after 12 days; the second, led by Dr. Cavalli Molinelli, after 30 days; while the leading group, Commander Cagni and three men, the guides Petigax, Fenoillet and the sailor Canepa, were to return at the latest on May 20, the extremest limit allowed by the breaking up of the pack. The group led by Querini, which had started on its way back after only ten short marches towards the N., never arrived at the base. They must have been overtaken by some catastrophe such as the treacherous polar pack and the deadly climate have always in store for Arctic explorers. Meanwhile, as days passed after the appointed date, one can imagine the anxiety of the Duke, who had taken his stand, alone, in an improvised shelter on the northern shore of the island to watch for the return of his comrades. On April 18 the Cavalli Molinelli group arrived back at the hut; and finally on June 23, after an absence of 104 days, more than a month late, Commander Cagni and his three companions rejoined their anxious comrades. Their haggard looks, torn clothes, rickety, dismantled sledges, seven surviving dogs—reduced to skin and bone—gave evidence of the hardships suffered by the small caravan. Indeed, the performance of Cagni and his companions reads like an epic and is one of the most telling examples of struggle and victory of the human will against tremendous odds of a hostile nature. It was a fight of every hour, amongst the ice piled up by the pressures, with temperatures reaching to 50° (F.) below zero, on a pack in constant motion, now raised in high pinnacles, now intersected by canals and stretches of open water. Sometimes for days the party had been stopped by violent storms. On April 24 forty-four days after leaving land, they reached 86° 34' N. Lat., 20' beyond the extreme N. reached by Nansen (86° 14'). And next day they started on the return journey. The worst was yet in store for them. They had thirty days' rations for the men and 200 rations for the dogs, and it took them two months to return to the base. A few days after turning back, Cagni's observations revealed that they were being driven out of their course by a strong drift of the pack towards the W. For weeks they had to keep up a desperate struggle against the drift. As they got farther S. they met ice all broken into dykes and canals, and also stormier weather.



Towards the end, they had to feed on the flesh of their dogs. Only the obstinate will to live brought them to salvation. They had attained a spot 20 geographical miles beyond Nansen's; but their achievement must rather be compared with that of the preceding explorers who had tried to reach the Pole, starting from land. The farthest point had been reached by Lockwood ( $83^{\circ} 20'$ ), and Cagni surpassed it by 194 geographical miles.

The expedition made considerable additions to the geographical knowledge of Franz Josef Land; it disproved the existence of Petermann and Oscar Lands, and brought back a series of meteorological, magnetic and gravity observations, besides collections in mineralogy and natural history.

Next followed, in the life of the Duke of the Abruzzi, a second voyage round the world, in command of the destroyer *Liguria*, a voyage of 53,600 miles, crossing the Equator six times, navigating up nine rivers and touching 114 harbours, in the comparatively short time of  $19\frac{1}{2}$  months.

A year after his return, the Duke started for his third geographical venture, one in striking contrast with those described above, the exploration of the Ruwenzori Mountains, between Lake Albert and Lake Albert Edward, separating the large lakes of Equatorial Africa from the Congo Basin. The legend of the Nile fed by the snows, stretching back to the Greek geographers and Ptolemy, had been a tradition for centuries. Sir Samuel Baker, Romolo Gessi and Sir Henry Stanley had caught glimpses of the silvery tops of the range, clad almost perpetually in clouds and mists. In the preceding fifteen years several explorers had tried to obtain access to it from the W. and from the E. A few had reached the glaciers or even some crest above them. But none of the higher peaks had been climbed, and the vapours and mists shrouding them at all seasons had never allowed the various parties to ascertain their true numbers, nor their height or position in the range, in relation to the watershed and the valleys.

The expedition—the Duke, Commander Cagni, Dr. Cavalli Molinelli, Vittorio Sella and A. Roccati, geologist, with two guides and two porters from the Alps and Sella's assistant—left Italy in the middle of April 1906, reaching Mombasa after seventeen days. They travelled by railway to Lake Victoria, and having crossed it by boat, arrived at Entebbe on May 7. Here the caravan was organised and in fifteen days crossed the 180 miles between Entebbe and Fort Portal, about 5000 ft.



above the sea, at the gate of the mountains. In the uncertainty about the best way of approach, the Duke had chosen the Mobuku valley, enclosed by the eastern buttresses of the range, which had been selected by most of his predecessors, as it appeared to be the shortest and most direct way. The valley was ascended in eight days, up and down over the projecting mountain spurs and over the crests of old moraines, in a maze of fantastic tropical vegetation, through forests grown over thick layers of dead tree trunks, the accumulation of centuries. On June 7 the head of the valley was reached, where the base camp was established at the foot of a high overhanging cliff, at 12,460 ft. of altitude.

On the following two days the Duke made a preliminary excursion on a group of peaks above the camp, situated on an eastern buttress of the range, Mt. Baker or Kiyanya. Only two months earlier Dr. A. F. R. Wollaston with R. B. Woosnam and R. E. Dent had climbed one of the peaks of this group. From the crest, between 14,000 and 15,000 ft. high, in the clear hours of the dawn of June 10, the Duke had a complete view of the mountain range and was able to obtain a notion of their position in the main axis of the range and their relation to the valleys. He ended the day by climbing the highest peak of the group, 15,286 ft.

After a few days' interval of bad weather the Duke started for the central and highest group of the range, Mt. Stanley. After camping twice on the glacier, on June 18, in thick fog, over steep ice slopes and crests edged by large corniches he succeeded in climbing one after the other the two highest peaks of the whole range, 16,815 ft. and 16,749 ft., which he named Queen Margherita and Queen Alexandra. Two days later, having again climbed Queen Alexandra peak, he made the ascent of two other summits of the same group.

The conquest of the peaks went on uninterruptedly. In a little more than a month, fourteen summits, all above 15,000 ft., distributed in the various massifs of the range, had been climbed, some of them repeatedly. The expedition had also explored and surveyed the Bujuku valley, a large tributary of the Mobuku, previously unknown. Meanwhile, Cagni had measured a base and had connected and completed the net of angles taken by the Duke on the mountains. He had also made a series of magnetic observations. Roccati had carried on a glaciological and geological survey, and, assisted by Cavalli Molinelli, had made a collection of the flora and the fauna. With admirable perseverance, Sella had succeeded



in fully illustrating the range with photographs and panoramas, taking advantage of every moment of clear atmosphere. In fifty days' work the problem of Ruwenzori was satisfactorily solved in all its aspects.

Three years later, in the spring of 1909, the Duke was able to realize at last a desire inspired by his first sight of the Himalaya, fourteen years before. Having led an expedition to reach the highest latitude in the Arctic, it was his ambition to climb to an altitude never before reached by man. There can be little doubt that he would have chosen Mt. Everest for the purpose, if at that time both Nepal and Tibet had not been absolutely closed to Europeans. He therefore chose the second highest peak of the world, K<sub>2</sub>, 28,250 ft., rising in one of the largest of all ice basins, the Baltoro Glacier, surrounded by a number of lofty mountains, which might allow the Duke to realize the aim of the expedition if K<sub>2</sub> itself should prove impregnable. The expedition comprised the Duke of the Abruzzi, Naval Lieut. the Marquis F. Negrotto, Vittorio Sella, F. De Filippi, Sella's assistant, together with seven guides from Courmayeur, among whom was again the faithful Joseph Petigax, who took part in all the Duke's expeditions, except the last. On April 20 the party left Srinagar in Kashmir, crossed the Himalayan Pass, Zoji La (11,230 ft.), at this early season still covered in deep snow, then traversed Baltistan by the Indus, Shigar, and Braldoh valleys and, on May 17, reached the foot of the Baltoro Glacier.

After two long and tiring marches on the loose stones of the diffuse moraine covering the lower part of the glacier, the expedition reached Rdokass, a slanting terrace on the ridge of one of the buttresses of the southern (left) flank of the valley, at 13,205 ft. of altitude, where the base camp was established. From here the caravan, in two more marches, arrived at the 'Concordia' amphitheatre, a vast cirque of mountains, where converge and join the two big branches of origin of the Baltoro Glacier. In the centre of the southern branch, called the Godwin Austen Glacier, the gigantic pyramid of K<sub>2</sub> soars up 12,000 ft. above the glacier. On the following day camp was pitched at the foot of the tremendous southern wall of the great peak, at an altitude of 16,512 ft.

For a whole month the Duke made repeated attempts to climb the mountain, from the S., E. and W., all frustrated by formidable obstacles—steepness of the rocks and their rotten character, threatening avalanches from overhanging glaciers,





*Photo, V. Sella.]*

H.R.II.

AT TOLTI IN THE INDUS VALLEY—THE DUKE SUPERINTENDING THE  
ENCAMPMENT OF THE EXPEDITION—MAY 1909.

*[To face p. 210*





*Photo, V. Sella.]*

THE DUKE STARTING FOR AN ATTEMPT TO CLIMB K<sup>2</sup> WITH ALPINE GUIDES AND BALTISTAN COOLIES,  
JUNE 1909.



and by the utter impossibility of carrying up over steep ridges and sheer rock-walls the camp material allowing for the necessary stages for the long ascent. This time was put to good advantage in completing a survey of this branch of the Baltoro up to the watershed, as well as casting a glance and taking some bearings in the unexplored region to the E. and N. of it. With July came the summer monsoon and the weather became very unstable. Every snowfall was followed by enormous avalanches from the high slopes, shaking the glacier with their impact and filling the valley with rolling echoes.

But the Duke had not given up the main object of the expedition. From the camp at the foot of K<sub>2</sub>, beyond the lower Godwin Austen Glacier and the 'Concordia' cirque, the snowy peaks at the head of the southern upper branch of the Baltoro, 'Golden Throne' and the 'Bride' Peak were in full sight. The latter, 25,110 ft. high, with its snowy ridges and slopes, seemed to offer good chances for an attempt. An eastern ridge descends from the top to an ample saddle connecting it with 'Golden Throne.' This had been named Chogolisa Saddle by Sir Martin Conway (now Lord Conway of Allington) in 1892, when he climbed one of the minor peaks of 'Golden Throne.' The expedition now camped at the foot of the steep glacier plunging downwards in big cascades of séracs from this saddle.

It took the Duke and the guides eight days to climb up to the saddle, during five of which they were confined in the small Alpine tents by a snowstorm. Then, having taken his camp up to 20,784 ft. and 21,673 ft., he made a first attempt up the eastern ridge on July 12, reaching an altitude of 23,458 ft., when they were forced back by dense fog and drifting snow. The storm lasted four days.

On July 17 they again left Chogolisa camp and brought the tents up to 22,483 ft. From here, on the morrow, the final attempt was made. In dense fog they managed to reach the upper end of a patch of rocks rising from the snow in the upper portion of the ridge. Here they waited for two hours in the vain hope that the mist might lift. Above them rose the last stretch of steep ridge, edged by a large cornice on the N., and falling on the other side in a precipitous slope covered with a thick layer of powdery snow, which creaked ominously at every step. To attempt to proceed further in the blinding fog would have been courting disaster. They had reached 24,600 ft., only 510 ft. below the summit, thus exceeding by 700 ft. the greatest altitude achieved by man up to that date



on the mountains. Slowly and cautiously, as they had gone up, they retraced their steps in the treacherous snow, struck the high camp from which they had started, and reached Chogolisa Saddle the same evening, after a day of fourteen hours and a half, at least ten of which had been spent in strenuous exertions at between 22,483 ft. and 24,600 ft.

These circumstances, the long period spent at heights above 20,000 ft., the good physical condition of the mountaineers during the two hours spent at the high altitude attained, permitted them to draw favourable forecasts regarding the possibility of climbing much higher—expectations which were fully realized in the two attempts of 1922 and 1924 on Mt. Everest, when for the first time the record of the Duke was surpassed.

The expedition made it possible to draw a map of the upper Baltoro, based on a photogrammetric survey, more complete and correct than former ones; many new measurements of peaks were made, as well as observations in glaciology, geology, flora and fauna, together with a study of the meteorological conditions prevailing in the high valleys of the Karakoram in the summer months. To all this must be added the magnificent photographic illustrations of Sella.

For twenty years no one returned to the Baltoro, until in 1929, another Prince of the House of Savoy, H.R.H. the Duke of Spoleto, led yet another Italian expedition up it.

Now followed for the Duke of the Abruzzi years of sterner duties and grimmer responsibilities. In 1911 came the Italo-Turkish war, although the veto of Austria soon put an end to the action started in the Adriatic and Ionian seas by the destroyers under his command. Then followed the Great War, when for nearly two years the Duke was Admiral of the Italian Fleet and Commander-in-Chief of the Allied Fleets in the Adriatic. This is not the occasion to speak of his achievements culminating in the rescue of the remnants of the Serbian army, or more than 150,000 men.

As soon as the war was over, without any delay, the Duke undertook another task, this time one of economic and social value, such as the times called for. In 1919, accompanied by a few experts and geographers, he started for Italian Somaliland to investigate the possibility of founding an agricultural colony on the banks of the lower Uebi Shebeli. In ten years of obstinate effort and ceaseless toil a flourishing settlement replaced the wild jungle over a vast zone. This territory,



fed by the waters of the Uebi Shebeli by means of extensive hydraulic works and canals, was provided with roads, a narrow gauge railway, storehouses, laboratories and all the industrial plant needed to make it self-supporting. The colony has grown round the Duke of the Abruzzi Village, the seat of the directors, with a church, a school, a hospital, houses for Europeans, an inn, a club, a cinema and tennis grounds, etc.

Having provided for the colony, it was natural for a person with the mentality and temperament of the Duke that he should feel the urge to explore in detail the river by which it is fed. In its middle and upper course it flows through districts of southern Ethiopia, partly unexplored or only crossed by the route-itineraries of various explorers, many of them Italians. A few of these had crossed the river in various parts of its course, while some had followed it for short distances; but nobody had made it his task to explore the river through the whole of its course, which for long stretches was still unknown or only surmised. Unknown also were its sources, the relation of its basin with those of the Awash, of the southern lakes of Ethiopia and with the tributaries of the Juba. The number, identity and relative importance of many of its tributaries had also to be ascertained. After 1902 the river had not been viewed again by any European save by Citerni in 1911, during the fixing of the boundary between Ethiopia and Somalia. In addition to the mere geographical interest, a thorough exploration of the upper course of the river and of its tributaries, the knowledge of climatic conditions prevailing in the basin which could lead to conclusions regarding its behaviour in the lower course was needed—all points to the economical advantage of the agricultural settlement.

Having obtained the official sanction and assistance of the rulers and Government of Abyssinia, the Italian expedition, by way of Gibuti, reached the capital Addis Abeba on October 20, 1928. The Duke had chosen as companions Dr. E. Cerulli, an expert in ethnography and in the languages and dialects of the Ethiopian and Galla tribes; Cav. E. Tischer, mineralogist; Dr. C. Basile, naturalist; Captain F. Palazzuolo and Lieut. G. Braca, surveyors; O. Pavanello, meteorologist; and E. Angeli, wireless operator.

After a week spent in preparation, the expedition started on its caravan journey from Hadama, a station on the Addis Abeba-Gibuti railway line. They steered due S. for about 126 miles by a way, not previously traversed by Europeans, which skirts the slopes of the range bounding on the E. the



Zuai Lake basin, at an altitude of 5500 to 9000 ft. They then crossed the Karra Pass, 10,330 ft., to Malca Daddecha in the valley of the Uabi, as the river is called in its upper reaches, about 53 miles below its sources. These were covered in three days, and on November 12 the expedition set camp by a large swamp, the source of the Uabi-Uebi, 8800 ft. above sea level. The place is called Hogiso, and here meet the borders of three different tribes—the Sidamo, the Arussi and the Bali—who all worship the source as a sacred object. Between the swamp of Hogiso and the marshes where the river ends, at no great distance from the Somali coast and the estuary of the Juba, the Uabi-Uebi Shebeli has a course of more than 1550 miles, nearly half of which, or 745 miles, are in Ethiopian territory. It took the expedition eighty-five days to explore and survey this portion of the river. It flows at first E. by N.E. through the ample mountain basin called Gedeb, about 60 miles long, and pours out of it in a series of rapids and two imposing waterfalls, lowering its level by nearly 2900 ft. Further on, the river flows into a deep gorge, 3300 ft. below the terraced surface of the valley.

After another 120 miles the expedition reached the holy shrine of Shek Hussen, the venerated tomb of a great saint, sought by large crowds of Islamic pilgrims from the whole of Eastern Africa. Only two European expeditions had visited the place before. The few days spent here to reorganize the caravan and provision it gave the Duke's party a chance to study the sanctuary, the cult and the many tribes and races congregating in this spot.

After Shek Hussen, the river continues to flow to the N.E. for another 90 miles, then it turns S.E. in a wide curve. The caravan road cuts this arc at a considerable distance from the river and is a very rough track, cut by deep ravines in which flow tributary streams. The river itself winds its course between banks covered with thick trackless jungle and forests, almost unknown even to the natives. The bulk of the caravan followed the direct road to the S., while the surveyors, lightly equipped, skirted as closely as possible the deep ravine of the Uebi, mapping its course and ascertaining the confluences of the tributaries. On December 27 they rejoined the main body, having traversed nearly 200 miles of unexplored territory.

The expedition again split in two to traverse and explore nearly 60 miles of the lower course of two important tributaries of the Uebi, the Dare and the Darro, dry at this season, and bearing brackish water during the rains. For about 60 miles



above the confluence of the Dare, the Uebi could not be surveyed owing to limited time, difficulties in provisioning and natural obstacles. This is the only gap in the map of the river's course. After Malca Dube, at the confluence of the Darro, the expedition proceeded together, except for short excursions by the surveyors to the other side of the river. Three stages below Malca Dube, on an isolated hill, are the remnants of a fort, containing the tomb of the Mad Mullah, who for more than twenty years kept up a guerilla war against British and Italian Somaliland.

The Somali plain was reached, where the river flows between low banks, often at a higher level than the surrounding flats, giving rise to floods and to diffluent streams called *farta* which, added to the intense evaporation, explain the paradox of the gradual shrinking of the volume of water the lower one proceeds *downwards* along its course. These conditions act as a control of the size of the river in its lower reaches and save the Somali plain from damaging floods. The 300 odd miles from Malca Dube to Sulsul on the frontier were covered in twenty-two days, and on February 4, 1929, the Duke entered Italian Somaliland. The mapping of the river was carried forward to join on with the survey made by the Italo-Somali Society in the zone of the village bearing the name of the Duke of the Abruzzi.

In addition to the geodetic and survey work, the expedition collected material for scientific studies on meteorology, climatology, mineralogy, fossils, anthropology, ethnography and natural history.

The series of achievements of the Duke of the Abruzzi in the field of geographical exploration closes here. The many years spent in tropical Africa with short and insufficient interruptions had impaired the health of the Prince, which declined more and more in the last two years. After months of suffering stoically borne, so that only a few intimate friends knew how serious the case had become, he felt the end approaching. Thereupon he quietly left Italy to pass away, in peace and in solitude, in that land he had reclaimed from the desert, in the little town he had built almost with his own hands. The end came on March 18—the passing of a most strenuous and profitable life, rich in attainment and results.