

100 YEARS: FROM “TALCO E GRAFITE” TO “RIO TINTO – LUZENAC VAL CHISONE”

For over 150 years, talc exploration and extraction in the Chisone and Germanasca Valleys offered the greatest number of job opportunities as an alternative to migration.

Until the mid-1800s, talc extraction was limited to exploiting small outcrops of the deposit at high altitudes. It was used in the form of soapstone to make everyday tools and utensils such as irons, pans for the *tourtèl* (large ravioli), inkpots, bed warmers, and drinking troughs for farm animals...

In the second half of the 19th century, numerous businessmen undertook the mining adventure with varying degrees of success, opening sites at Maniglia and Malzas (Perrero), at Sapatlé, Pleinet, Envie and Crosetto (Prali) and at Fontane (Salza di Pinerolo).

This period was characterised by the extreme contiguity of the sites, by controversies concerning the concessions and by a lack of clarity in mining legislation. This ended with the founding of the “**Talco e Grafite Val Chisone**” (the Val Chisone Talc and Graphite) Company in **July 1907** and the gradual absorption of all the smaller companies, in particular the “Anglo Italian Talc and Plumbago Mines Company”, which triggered a real phase of industrial organisation.

An impressive investment in technical and financial resources (8 million lire of Italian capital and a head office in Pinerolo) provided an impetus for mining activity in the valleys. The number of employees increased considerably: not only the miners, but also blacksmiths, sawyers, carpenters, builders, telfer operators and workers at hydroelectric stations, electricians and drivers. At its peak of expansion, the company employed over 600 people from the valley area.

The activity of “Talco e Grafite Val Chisone” continued until the late 1980s when it was taken over by the “Luzenac Val Chisone” Company, a world leader in talc production.. In February 2006, the Luzenac Val Chisone Company became part of the “Rio Tinto Minerals” Group, a leading international producer of industrial minerals. Mining continues inside the only existing mine, Rodoretto.

*To celebrate 100 years of mining the famed “Bianco delle Alpi” (the White of the Alps), the **Ecomuseo Regionale delle Miniere e della Val Germanasca (Regional Ecomuseum of Mines and the Germanasca Valley)** and the “**Rio Tinto Minerals – Luzenac Val Chisone**” Company, in collaboration with the **Piedmont Region** and the **Comunità Montana Valli Chisone e Germanasca**, have organised an exhibition entitled “TALC...the valleys, stories and people”.*

This exhibition aims at promoting the local heritage, with special attention to mining themes, but above all, it wants to achieve these objectives with the involvement and participation of the people, to increase their sense of belonging to their territory and sharing a cultural identity.

This historical retrospective was made possible thanks to the precious contribution of all those who participated in the initiative by providing testimonies, pictures, and documents.

Credits

Project, technical and installation coordinator
Project Manager at “Rio Tinto Minerals”

Barbara Pons (La Tunò Srl)
Francesca Morero

Acknowledgements

For the maps, historical and archival research:

Massimo Martelli, Raimondo Genre, Paolo Strani,
Valdo Pons, Angelo Rostagnotto, Andrea Baldoni ,
Enrica Rochon

For the historical pictures and videos

Carlo Sartorio, Giuseppe Priano, Giovanna Bisceglia,
Sabina and Marinella Villa, Daniela Pons

For the correction and preparation of the texts:

Valeria Rostagno

For the map processing:

Alessandro Coucourde and Raffaella Prot (Comunità
Montana Valli Chisone e Germanasca)



For the installations:

Franco Monticelli (Rio Tinto Minerals – Luzenac Val
Chisone)
Susy Pascal, Ketty Pascal, Andrea Peyrot and Luca
Garrou

Special thanks to:
Lookout Design

...HISTORY

The earliest exploration for minerals in the Chisone and Germanasca valleys goes back many generations, to a period from which no reliable documents have survived.

Among the most important activities were surely the quarries of Val Germanasca, which have been producing excellent quality marble since the 15th century. This marble was used for the monuments and palazzos of Turin (the façade of the Duomo, the pillars of the Royal Palazzo, the Villa Reale of Racconigi, statues on the façade of Palazzo Madama, etc.). The extraction of diorite from the quarries of Malanaggio (Porte) and Perosa Argentina was also very successful, as was the extraction of chalcopyrite from the mines of Bet in the municipalities of Massello and Pragelato.

Nevertheless, the extraction of graphite and, above all, talc was the fulcrum of the mining activity which continues today with a variety of very fine talc products known as the famous "Bianco delle Alpi" (The White of the Alps).

...the various stages

In 1780, the General Council of the Communities of Val Chisone met in Fenestrelle on the invitation of the Provincial Superintendent to ensure that the Reali Patenti of 28 April were being followed. They laid down the rules for extracting the "*Terra ou Pierre de Craye*" (talc). For around a century, talc was only mined from outcrops of the mineral itself, with small open-pit excavations carried out by families.

In 1859, the Legge Sarda (Sardinian Law) brought many changes and classified the mineral as one of those subject to the rules of the quarries, which gave ownership of the resources of the subsurface to the legitimate owners of the land where the deposit lay. Numerous businessmen undertook mining and in ten years or so, the situation became almost unsustainable. The mining sites were so close to each other and the extraction was so chaotic that disputes often broke out which were difficult to resolve.

Among the pioneers who had a big impact on the development of the mining activity were Mrs Rostagno di Perrero, who opened short exploratory tunnels in the areas of Malzas and Crosetto and oversaw the building of a talc mill, the Baldrac Company, Cavaliere Francesco Alliaud, Count Brayda and Mr Sery, the surveyors De Giorgis and Elleon, the lawyer, Carlo Gay, Mr Eugenio Juvenal, the brothers Giuseppe, Giovanni and Cirillo Tron, the Englishmen Pathé Bouvard and Huntriss and finally the "Società Internazionale de Talc de Luzenac". The Challier, Martin and Martelli companies also operated in the area of Fenestrelle; the Ponzet, Marcellin, Challier and Co. at Pragelato; Fedele Francesco & Co., Ghigo and Griglio companies at Prali; the Jourdan and Cullati companies at Roure, and Berthelot & Company at Salza.

An acquisition phase began in 1885 which saw the the more powerful companies taking over smaller ones, with the sale of Mr Sery's holdings to Count E. Brayda.

On 27 August 1887, as the exploitation of the mines died down, some concessionaries, among which the Count of S.Martino, the Englishman Huntriss and Brayda himself, formed the "Anglo Italian Talc and Plumbago Mines Company" of Liverpool. These were years of great innovation. In fact, an audacious project by Count Brayda led to the opening of the "Gran Courdoun" at the end of the century. This project connected the high-altitude sites (Sapaté and Malzas – in the municipalities of Prali and Perrero) to the carriage road at the bottom of the valley. These years also saw the creation of an industrial plant to mill the minerals (the Malanaggio Mill at Porte).

At the same time, the disagreements between the Italians and English concerning company management became irremediable, especially after the construction of the "Gran Courdoun" which the partners across the Channel considered too grandiose. After suddenly firing the directors Martino and Brayda in 1902, Huntriss took over the management of the mines in cooperation with a trustworthy technician, the accountant D. Sartorio. For years, the main product of the company (which continued to expand with the acquisition of the Vinçon and Berthelot companies) was graphite, but in 1907 some Austrian businessmen, troubled by Italian imports (especially in Germany), set up a new company with the help of the banker Roberto De Fernex.

This is how the "Talco e Grafite Val Chisone – S.V.C." Company based in Pinerolo was created in July 1907. It took over all the tangible and intangible assets of the previous company and the new shares were bought out by the "De Fernex" banking Company (majority shareholder). The new company gave a big boost to the

mining activity, such that in 1909 the "Italiana Grafite" company became a leading producer of the mineral. Its success was also due to the competence of the mining expert C. Salton, who in those years was technical manager of the S.V.C. Company. The production of graphite, which up to that time dominated mineral sales, began to show the first signs of a crisis. This was mainly attributable to the appearance on the market of American competition; therefore, it was only logical to concentrate on talc mining. The tenacity of chairman De Fernex set off a new campaign of acquisitions and exploration conducted by the engineer E. Ridoni. He first acquired ownership of the "De Giorgis – Elleon" (1/3 Fontane), "Cav. Giovanni Tron" (1/3 Maniglia, 1/2 Roure, 1/2 Crosetto) and "Eredi Cirillo Tron" (1/2 Crosetto) companies and then continued with the difficult negotiations to take over the "Eredi Giuseppe Tron" company. At the time of De Fernex's death in February 1919, the chairmanship was taken over by board member Pietro Villa (who in 1918 entered into the company's shareholding with the sale of the Scotto Jute Factory which later became a plant for producing electrodes in Pinerolo). A few months later, the much sought-after merger with the "Eredi Giuseppe Tron" Company (1/3 Fontane, 1/3 Maniglia, 1/2 Roure 1/2, Comba La Fracia, Pleinet, with relative cable railways, mills and warehouses) took place, which was decreed by Giovanni and Arturo Prever's entrance into the Board of Directors.

Ada Prever, Giovanni's daughter and Arturo Prever's sister later married Pietro Villa. From this time onwards, the company became a "family owned" business and in the years to follow the chairmanship would go to Arturo Prever, Ada Prever Villa and finally Gianfranco – the son of Ada and Pietro Villa.

The companies still standing took action enabling the acquisition of the "Alliaud Padre e Figlio" Company (Envie, 1/2 Roure with relative mills and cable railways) in 1919, and the Società "Eredi Carlo Gay" Company (1/3 Fontane, 1/3 Maniglia, 1/2 Comba La Fracia with relative mills and cable railways) in 1920.

The Isolantite Plant of Pinerolo was acquired in 1921 and the activity of "Talco e Grafite" was expanded in 1924 to include the Iberian Peninsula. This led to the establishment of the "Española de Talcos" Company (1/3 of which was sold to the Società de Luzenac).

The Mining Law of 1927 finally brought some order to the mining industry, prescribing that the entire subsurface was state-owned property. By defrauding the private individuals and small local enterprises who had owned the property up to that time, the Talco & Grafite Company took over nearly all the talc and graphite production in the area by gradually absorbing the smaller companies. Therefore, the granting of the government concession (for a term of 99 years) was needed to exploit the mining deposits.

In view of the imposing proportions that talc extraction was assuming in Sardinia between 1929 and 1930, a process began to acquire the mines in the province of Nuoro, made possible by the constitution of the "Talco Enrico Tron & Co" (which had been doing business with S.V.C for some years).

S.V.C.'s activity continued to expand and the opening of the new mines of Gianna (1935), Paola (1937), Vittoria (1941), S.Pietro (1947) and Carla (1955) coincided with the construction of transport services and systems. The mechanical equipment was improved, the mills were updated and modernised (both the building structure and machinery), the road system was renewed and hydroelectric plants were built, giving the company independence when it came to electricity requirements.

In order to eliminate any local competition, S.V.C. acquired the "Société Internationale de Talc de Luzenac" in 1956.

Time brought with it the first signs of a crisis and some deposits ran out. This was followed by the closing of the mining sites of Malzas (October 1960), Comba La Fracia – Sapaté e Pleinet (1961), La Roussa (April 1963), Envie (October 1963) and Maniglia (March 1968). The remaining mines were restructured into three sections: Gianfranco, Gianna and Crosetto, the Paola mine was joined to the Gianna mine and the Vittoria mine was closed for good. Activity continued at a fast pace and new systems were introduced leading to greater production efficiency: the blades of the loading machines were placed on tracks, a compressed air mechanised plant was added to the gob (which later allowed for the use of a cement gob) and finally, towards the mid-70s, the descending cultivation system took over from the ascending one since it was safer and less costly.

At the beginning of the 1980s, the extraction of graphite was abandoned with the closure of the mines at Inverso Pinasca and then at San Germano Chisone (1984). The end of this decade saw the progressive

depletion of all the talc-mining sites on the orographical left (Fontane) and the activity began to concentrate more and more on the opposite slope (Crosetto).

In 1990, the “Talco e Grafite Val Chisone” Company was taken over by the French group “Talc de Luzenac – Luzenac Val Chisone” which radically revolutionised all the production sectors with the introduction of new technologies and the 1995 opening of a new tunnel called “Rodoretto” at Pomeifré.

In 1995, the Gianna mine was closed for good, and the mines at Crosetto followed in 2002.

In February 2006, the Luzenac Val Chisone Company became part of the “Rio Tinto Minerals” Group, a world leader in the production of industrial minerals. Mining continues within the Rodoretto mine.

...THE VALLEYS

From the early years of operation, the "Talco e Grafite" Company strongly influenced life in the valley, shaping it and modernising it, developing the mining activity and related sectors.

The road system was improved, a telephone network was created, innovative transport systems (cable railways, *decauville* railways) and mineral processing plants (sorting and milling plants) were designed and built, and hydroelectric stations and substations were built.

Transport systems

For decades, the talc was transported by carriers: children, women and men who carried the mineral down the valley on their shoulders, in jute bags, on sleighs or carts. On reaching the cart road, the minerals were brought to the mills via mule-driven carts.

At the end of the 1800s, local businessmen began to create the first transport systems: after the construction of the revolutionary "Gran Courdoun," numerous other mines were equipped with telpher lines and cable railways.

The construction of telpher lines connecting the mines of Roure (La Roussa) to Balma (1906), Fontane to "La Reiso" (1908), Sapaté to Villa di Prali (1912) followed in rapid succession. Later the mines of Comba la Fracia and Envie were also equipped with cable railways. Champ Aymar was connected to Charjou a Roure (1920), Gianfranco Est (Malaura) to Pomeifré (1932), Maniglia (Vallone) to the carriage road for Massello (1933) and the mines of Clot Boulard to the hamlet of Masselli at Pomaretto.

Carts drawn by animals were first used to reach the plants of San Sebastiano (Perosa Argentina), Malanaggio (Porte) or the company office at Pinerolo (located near the train station from which the convoys departed), these were later replaced by a tramline going from Pinerolo to Perosa (Gibuti) and finally by trucks which are still used today.

The work

For decades the milling plants were scattered throughout the valleys near the mining sites. Unfortunately, they are rather hard to find since the plants were abandoned and destroyed and the few traceable pieces are often difficult to interpret.

One of the first mills operating in Val Germanasca was built by Mrs Rostagno in the locality of Sagne, down the valley at Perrero. A second mill was located at Ponte Rabbioso at the Massello intersection. At the entrance of the town of Perrero stood the mill of the De Giorgis-Elleon Company (subsequently taken over by S.V.C.)

Some documents dating back to the early 1900s testify to the presence of two other mills in Perrero, one belonging to "Société Franco Italienne pour les mines de Talc du Piemont" and another operating in Riclarretto owned by the "Anglo Italian Talc and Plimbago Mines Company." This latter is still visible because it was taken over by "Talco & Grafite" and converted into the Hydroelectric Station of Chiotti Inferiori.

Four mills were operating in Val Chisone as far back as the late 1800s, some of which cannot be identified. Two mills belonging to the "Alliaud" Company were located at Balma and Castel del Bosco, and a mill operated by the "Juvenal" Company was located in Charjour, while a mill owned by the Jourdan Company stood at Roure, most likely in the hamlet of Castel del Bosco.

Lower down in the valley are the mills of Meano (one at Jartousiere and another along the road at the intersection for Lagèard). There is also evidence of a graphite mill belonging to the Tron Company at Brancato, while a talc mill belonging to the Gay Company was located in Perosa Argentina.

Some documents refer to graphite mills at San Germano Chisone (Volavilla), Villar Perosa, Inverso Pinasca and a talc mill at Pinerolo, of which no traces persist.

Creation of the "Anglo Italian Talc" Company led to the acquisition of the mines and transport systems, as well as the milling plants. At the end of the 19th century, this company began building the Malanaggio plant.

The mill of San Sebastiano at Perosa Argentina was constructed in 1918 under the guidance of Giovanni Prever. The start-up of these monumental and innovative mills caused the other mills to close down.

Currently the only mill in operation is Malanaggio at Porte di Pinerolo, near the current headquarters of the concessionary company, "Rio Tinto Minerals-Luzenac Val Chisone."

Energy production

The first testimonies concerning the presence of electrical plants, built to supply the mines, show the presence of a plant at the end of the 1800s in the locality of Tuccia at Pragalato. Nevertheless, the first plant was built by S.V.C. after the end of the Second World War in the region of Ribbe di Perrero. The Chiotti Inferiori plant opened in 1924, the Castel del Bosco and Charjour plants in 1927, and the Chiotti Superiori plant in 1929. The Malanaggio plant also opened during these years.

All the electrical plants were interconnected, and linked to the various mining sites and mills. Electrical power was also sold to private individuals. With the passing of the years the network was modernised, expanded and equipped with cement poles. Unfortunately, the start of the crises of the various extraction areas led to the downsizing of the entire mining activity which also affected the hydroelectric sector.

In 1989-90 the "Talc de Luzenac" Company took over "Talco e Grafite." This company was not interested in the production of electricity and sold all the powerplant networks to the C.I.O. Company of S.Ambrogio di Susa.

The Gran Courdoun

By the late 1800s, the need was felt for solutions to transport the talc extracted from the mines to the bottom of the valley. The use of human power and sleighs meant enormously increased delivery times and costs, making the mineral of the Val Germanasca less competitive than the foreign productions (above all, Pirenei) which were easier to extract and transport.

Count Enrico Brayda (at that time Managing Director of the "Anglo Italian Talc and Plumbago Mines Company") was the first to conceive the bold project of connecting the extraction sites and the carriage road, thus the *Gran Courdoun* was born. The work was absolutely massive and ahead of its time, making it possible to eliminate the obstacles associated with manual transport.

The preliminary works were executed by Captain Albarello of the "Direzione di Artiglieria" of Turin and the work was favourably received by the army engineer who hypothesised a wartime use for the route, which led him to create various arrival and departure "stations" (in reality, it was never used for this purpose).

The project was carried out by the English engineer, Carrington, who took advantage of the orographic conformation and designed a mixed transport system: three telpher sections and two narrow-gauge railways (*decauville*).

The Gran Courdoun departed from Sapatlé (2,034 m, Prali) where a *decauville* reached the station of Colletta Sellar (2023m) after a slight slope of 1,800 meters. The talc was then transported by a convoy of mule-driven carts and stored. It was once again loaded into buckets at the first section of the "two-way" telpher line which, with a jump of almost 1,000 meters, reached the station of Malzas (1,797 m, Perrero) where the mineral was transferred directly to a *decauville* mine-car. After a kilometre and a half it reached the station of Punta Croc (1,785 m) which in the 1950s was also connected to the "Traverso" tunnel (1,500 m above sea level) of Crosetto via a motorised telpher line.

After another storage period the mineral was once again loaded into the buckets and carried down to Perrero (the Station of Courdoun) with two sections of chair lifts: a first section via the "two way" telpher line from Punta Croc to Comba Molino (1360m above sea level) and the second section of around 1,100 meters by cable line.

The station of Courdoun was equipped with large warehouses and silos for the talc, a small sawmill to supply the wood needed for the mines, a platform balance to weigh the talc, and a residence for the managers, supervisors and custodians. This is the only structure still standing.

The cable railway was inaugurated on 23 October 1893 with a memorable celebration. The festivities began the night before when Brayda himself tested the plant by climbing aboard a bucket from Comba Molino to Perrero. The morning after, the guests also had a chance to experience the exhilarating ride up from Malzas to Colletta Sellar and continuing in the *decauville* to Sapatlé.

This transport system proved to be very efficient and was used until 1960. During its seventy years of operation, it transported around 6 million quintals of the finest talc.

...THE PEOPLE

Margherita Tron and Giovanni Prever

Margherita Tron and Giovanni Prever owned the “Eredi di Giuseppe Tron” Company, which held most of the concessions, especially in the municipalities of Roure, Perrero (Malzas) and Prali (Sapatè e Envie), with telpher annexes and milling plants (the mills of Meano and San Sebastiano).

The 1919 merger with “Talco & Grafite” led to the founding of S.V.C.. The assets and administration passed entirely into the hands of the Prever-Villa family. In fact, Giovanni Prever became a member of the company’s Board of Directors, which at that time was chaired by Cav. Pietro Villa.

The marriage of Margherita and Giovanni produced three children: Arturo, Ada and Viola

Pietro Villa (1875 -1937)

Pietro Villa was born in Pinerolo in 1875 to Giovanni Villa and Teresa Camusso. Coming from a large, but modest family, he was the only one who remained in Pinerolo. The five children (Pietro, Giuseppe, Giovanni, Carlo, Mario and Novena – who died at an early age) emigrated abroad in search of fortune. In 1898, Pietro began working with Furio Camillo Scotto, owner of the “Iutificio Scotto di Via Vigone” in Pinerolo. Thanks to the trust and relationship of great respect which was established with the Scotto family, he became a partner after a few years. He then became a member of the Board of Directors of “Talco e Grafite Val Chisone” in 1916, which at that time was headed by his friend Roberto De Fernex. In 1918 the “jute factory” was sold to S.V.C. and he became one of the company’s majority shareholders. Upon the death of De Fernex in 1919, he took over as Chairman of the company, a post which he held until his death in 1937.

His term was characterised by acquisitions and the family “layout” which was imprinted on the company. He married Ada Prever (son of Margherita Tron and Giovanni Prever) in 1920 and had a son, Gianfranco.

Pietro Villa, son of Giovanni. Industrialist, was Chairman of the company “Talco e Grafite Val Chisone,” “Italo Talco” of Livorno, “Assicurazione Subalpina” of Turin, “Officine meccaniche” of Pinerolo; and board member of the Spanish company “Talco di Madrid.” He held numerous other important positions at other companies in Piedmont (“Annuario degli Insigniti di Onorificenze Cavalleresche del Regno d’Italia di Ordini Equestri, Pontifici, Magistrali ed Esteri” of 1934-1935).

Ada Prever (1903-1983)

Ada Prever, the daughter of Margherita and Giovanni, sister of Arturo and Viola, married Pietro Villa in 1920. “Madama Villa” as she was known by workers and residents of the valley had a decisive, hands-on role with the company. She took over the administration after her husband’s death. Together with her brother she held the chairmanship from 1947 until 1977 (remaining as honorary chairman until 1983). She experienced the years of maximum expansion of the company’s mining activity and then the first years of crisis. She navigated the S.V.C. Company through the difficult period of the closing of the mines in the 1960s, up to the recovery of the 1970s.

Arturo Prever (1897-1972)

Arturo Prever, the brother of Ada and brother-in-law of Pietro, became Director (holding the office of Vice-Chairman from 1924 to 1937), Chairman (from 1937 to 1947) and Vice Chairman, once again alongside his sister Ada, until his death in 1972.

Gianfranco Villa (1920-1996)

Gianfranco Villa, the son of Ada and Pietro Villa, married Carla Santiano (1930-2004) and had three children: Pietro, Marinella and Sabina. From the late 1950s, he helped his mother and uncle run the company. In 1977, he took over as Chairman and managed the company until the 1990s when it was purchased by the French Group “Talc de Luzenac.”

TALC

In Val Germanasca, talc – a mineral belonging to the class of “phyllosilicates” – often went under the popular name of “*péiro douso*” (tender stone). This very soft mineral is greasy to the touch and has a lamellar structure and a white colour with shading varying from snow-white, to white-ivory, greenish white, grey or brownish.

It was initially used as an ornamental stone or to produce everyday objects and utensils (irons, stones, pans, inkpots, etc.) and grew in demand as its special chemical-physical properties became known, i.e. it is chemically inert to acids (except for hydrofluoric acid) and alkalis, has a high melting point (around 1540° at the pure state), assumes an elevated hardness after cooking (which can scratch glass), is an excellent dry insulator and lubricator, has an elevated power to absorb greasy substances and lubricants.

At the beginning of the 20th century, in light of all these characteristics, talc began to be used in many sectors, no longer in the form of blocks or pieces, but ground into very fine powder.

It is used in the following industries:

- **textile**, as a thickening agent to starch and lubricate threads;
- **soap**, to absorb grease and oils and fix colorants and perfumes;
- **natural rubber**, as a constituent of white rubber and to lubricate the moulds;
- **paper**, as a filler to replace kaolin (it enhances some properties of the paper such as whiteness, coating, flexibility and resistance, protects against humidity and facilitates the processing phases, especially rolling and cutting)
- **milling**, for husking rice and as a protection against bacterial action and atmospheric agents;
- **leather**, to produce greases used in tanning,
- **ceramics**, to produce *craquele* ceramics and insulators;
- **glass**, as an ingredient for special glass paste (opaque, glass for clocks);
- **colours and paints**, replaces clay and chalk to absorb colours;
- **pharmaceuticals and cosmetics**, as powder to dry and refresh the skin, for make-up, creams, tooth paste and massage powder;
- **explosives**, as an inert filler ,
- **lubricants**, to prepare grease for wheels (solid lubricants);
- **metal-working**, as a coating for the forms;
- **agriculture**, to prepare fertilizers, mixtures to protect against plant diseases;
- **wood**, as a primer for painting or varnishing raw wood;
- **building**, as a constituent for imitation marble, tiles, pavements and roofs.

It can be easily demonstrated that talc has been used in almost every industry since the First World War.

It should also be mentioned that the quality of the talc found in Val Germanasca is recognised worldwide for its brightness and purity. It is considered to be the finest talc in the world, and has recently obtained ISO 9002, ISO 9002 (1992), BS 7750 (1995), ISO 14001 (1996), ISO 9001:2000 (2003), 2004 GMP (2004) quality certifications.

•

About Rio Tinto Minerals

On 1 February 2006, Luzenac Group, Borax - world leader in borate supply and research and Dampier Salt, the world's largest salt exporter, were brought under common management to form a new organization called "Rio Tinto Minerals".

Rio Tinto Minerals is a member of London-based Rio Tinto, world leaders in finding, mining and processing the earth's mineral resources. The organization encompasses 3,300 people working at 50 facilities on five continents to serve more than 2,500 direct customers worldwide. Rio Tinto Minerals supplies nearly half the global demand for borates, used in fiberglass, glass, ceramics, detergents, fertilizers and wood preservatives; 25 percent of the global demand for talc, used in paint, polymers, paper, ceramics and personal care products; and is the world's largest salt exporter. The organization is the acknowledged world leader in product quality, supply reliability and technical support – the services that create value for its customers and differentiate Rio Tinto Minerals from its competitors – and is an industry leader in continuously improving how its products and practices contribute to sustainable development.