Il parco tecnologico
The technology park

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Nei giardini adiacenti gli uffici della sede di Casale vi è un piccolo museo all’aperto dove rivivono vecchi macchinari dismessi in un percorso di “archeologia industriale”. I pezzi esposti sono stati scelti cercando di rappresentare le macchine più significative degli inizi della produzione di cemento nell’area casalese.

A small outdoor museum of “industrial archeology” in the gardens next to the Casale office building has breathed new life into previously disused machines. The pieces on display were chosen based on their importance to the cement production industry since its origins in the Casale area.

Griglia di estrazione del clinker
La griglia di estrazione del clinker faceva parte di un forno verticale automatico Mannstaedt rimasto in funzione presso la cementiera di Trino dall’inizio degli anni ’20 fino al 1950. (foto 1)

Locomotore Horestein e Koppel e vagone Decauville
Questo locomotore diesel veniva utilizzato per movimentare la marna estratta nelle gallerie di Tagliaferro e Pozzo Boido, situate nel comune di Camino e località Brusasco. (foto 3) Negli anni dall’immediato dopo la guerra, la marna veniva estratta dai pozzi e portata su vagoni fino al traghetto di barche installato sul Po, in sostituzione del vecchio ponte abbattuto dalla guerra partigiana. Questo era l’unico sistema per spostare la materia prima dalle miniere allo stabilimento di Trino, situato sulla riva opposta del fiume. Negli anni ’50 viene costruita una teleferica e il locomotore viene allora utilizzato per il trasporto tra i vari pozzi, spostandosi su un binario a scartamento ridotto di 60 cm, e i sili della nuova stazione della funicolare aerea che verrà utilizzata fino all’apertura delle cave.

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Vagone per trasporto industriale
Questo vagone faceva parte di un trenino industriale che veniva utilizzato per il trasporto della marna dalle miniere alle varie cementerie casalesi. (foto 4)
La marna veniva prelevata dai pozzi delle miniere di Rolasco e di Coniolo, arrivava fino al Ronzone – quartiere alla periferia della città di Casale – e da lì, sempre tramite il trenino, veniva distribuita alle cementerie della città: la Bargero, la Fratelli Buzzi, l’Italcementi, la Società Piemontese Cementi e Calci, la Milanese e Azzi, la Società Palli (diventata poi Cementi Alta Italia) e l’Unione Cementi Marchino.
Sui lati del vagone è riportato il numero 33, anno di nascita dell’Ing. Sandro Buzzi.

Gruppo di macinazione
Il mulino preparatore Orion, degli anni ’30, rimase in funzione presso lo stabilimento di Casale fino alla seconda metà degli anni ’40. Esso veniva utilizzato per premacinare la miscela di clinker e gesso, oltre ad eventuali altri componenti.
Una particolarità di questo macchinario era l’uscita periferica del semolino da fessure realizzate dalla speciale corazza a salti. Il semolino che usciva dal mulino preparatore era grossolano e doveva quindi essere passato nel mulino finitore UNIDAN della F. L. Smith per ottenere il prodotto finito. (foto 5)

Insegna in calcestruzzo
L’insegna “Lavori in cemento – Succursale della ditta Buzzi Luigi & Figli di Casale Monferrato” è del 1876 ed è stata recuperata a Castagnone di Pontestura in un vecchio deposito dove vi era un capannone con alla sommità il frontone illustrato nella foto 3.
A fine ’800, in questo laboratorio, iniziava l’attività della famiglia Buzzi, con la realizzazione di piastrelle in cemento.

A few special machines have found a new home in the green area surrounding our offices as historical representatives of the cement industry in Casale. These pieces include a clinker extraction grate, a vertical kiln extraction grate, a diesel locomotive with mining wagon, an industrial wagon for transporting marl, two grinding mills, plus a concrete sign from when the Buzzi Luigi & Figli company first set up business in 1876. After being stored at the Cementi Alta Italia plant for many years, the machines were repaired in part by the Officina C.M. at Trino and then sanded and given a coat of transparent varnish to protect them.
Clinker extraction grate
The clinker extraction grate was part of a Mannstaedt automated vertical kiln that was in use at the Trino cement plant from the beginning of the 1920s until 1950. (photo 1) Situated at the employee entrance of the corporate offices, the grate features four toothed wheels with coupling motion in opposite directions. They were moved by means of four keyed helical gears located on each toothed wheel and four worm screws with a reverse pitch. The kiln was operated by two people per shift (over three shifts), during which one person oversaw the feeding of the kiln while the other was responsible for the removal, crushing, transport and storage of the material. After being mixed with coal, the marl slowly progressed along the kiln to the sinterizing area, burning from the effect of combustion fed by air injected from the bottom, which could reach temperatures of up to 1,300 degrees.

Vertical kiln extraction grate
The Grueber rotary clinker extraction grate for a vertical kiln dates from the 1930s. The machine, in this instance, was operated by a single helical gear and a single worm screw, while valves opened alternately to regulate the air. (photo 2) Air was delivered to the early kilns by a fan but these days it is supplied to the newer kilns by a positive displacement blower (two elements that rotate in opposite directions to catch the air and compress it).

Horestein and Koppel locomotive and Decauville wagon
This diesel locomotive was used to transport the marl quarried in the Tagliaterro and Pozzo Boido tunnels located in the municipality of Camino and at Brusascochetto. (photo 3) During the years just after World War II, marl was quarried by means of shafts and transported by wagon to the ferryboat on the River Po, which replaced the old bridge that had been destroyed during the partisan warfare. This was the only way to transport the raw material from the mines to the Trino plant, which was located on the other side of the river.

A cable way was built in the 1950s and so, running on a narrow gauge rail of 60 cm, the locomotive was used for transport between the various shafts and the silos at the new cable car station, which was in use until the opening of the surface quarries.

Industrial wagon
The wagon was part of an industrial train that was used to transport marl from the mines to the different cement plants in the Casale area. (photo 4) The marl was removed from the various shafts of the Rolasco and Conioalo mines, travelled to Ronzone in the suburbs of Casale from where it was transported by train to the various cement plants in the city: Bargero, Fratelli Buzzi, Italcementi, Società Piemontese Cimenti e Calci, Milanese e Azzi, Società Polli (which later became Cementi Alta Italia) and Unione Cementi Marchino. The sides of the wagon bear the number 33, which is the year of birth of Ing. Sandro Buzzi.

Grinding mills
Dating back to the 1930s, the Orion preparation mill operated at Casale until the mid-1940s. It was used to pregrind the clinker and gypsum mixture, plus other components if necessary. One special feature of this machine was that the meal exited from peripheral openings created by the particular overlapping lining. The meal coming from the preparation mill was course and had to be further processed by the UNIDAN finishing mill from F.L. Smidth to obtain the finished product. (photo 5)

Concrete sign
The sign “Lavori in cemento – Succursale della ditta Buzzi Luigi & Figli di Casale Monferrato” (Cements products - Branch of the Buzzi Luigi & Sons company of Casale Monferrato) dates back to 1876 and was found on a shed in an old storage area at Castagnone of Pontestura. (photo 3) The Buzzi family started their business making cement paving tiles in this workshop at the end of the 1800s.