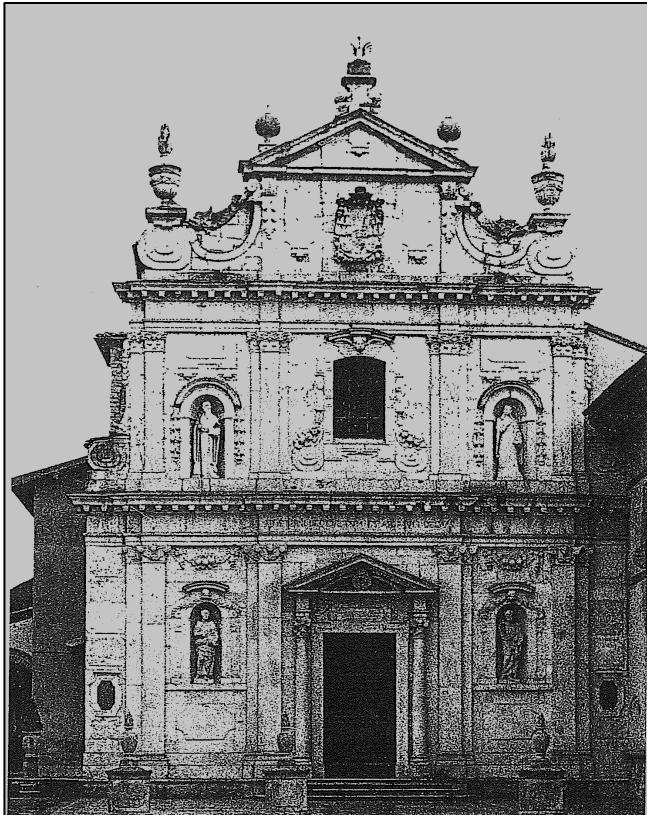


Chiesa di S. Paolo D'Argon (Bergamo)

Eretta nel 1686 dall'Arch. Domenico Messi di Lugano, stile Barocco; la facciata principale, tutta in MARMO DI ZANDOBBIO, è stata restaurata negli anni 1986-1987 con prodotti e tecnologie della Tecnochem Italiana

Prima del restauro



Dopo il restauro



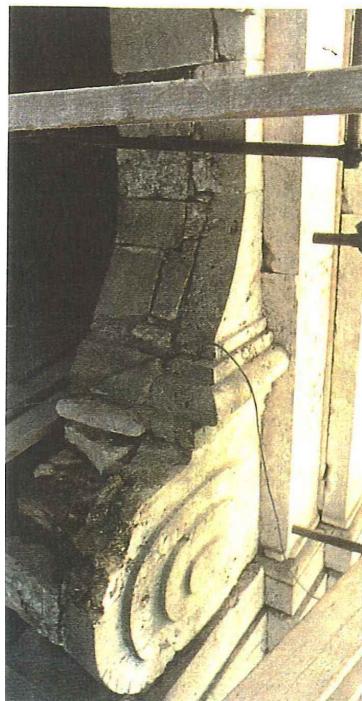
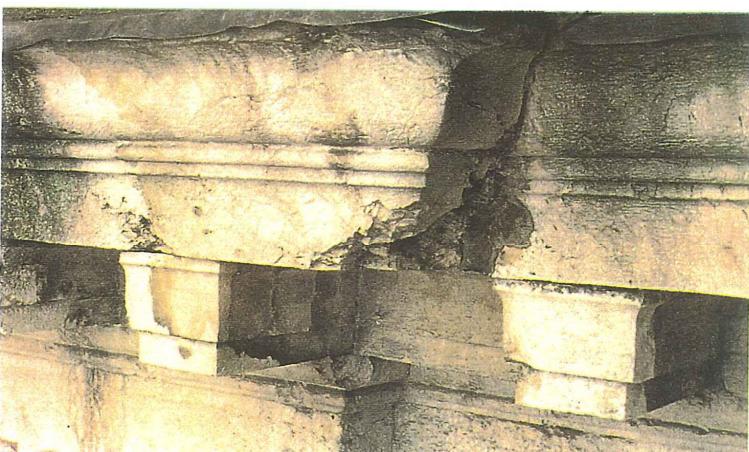
Marmo di Zandobbio: la cava è ubicata vicino al villaggio di Zandobbio alla base della Valle Cavallina (BG).

Marmo mineralogicamente costituito da equidimensionali (100-300 micron) cristalli di calcite.



TECNOCHEM[®]
TECNO ECO[®]
LOGIC CHEM
ITALIANA SPA





Before Restoration : north-east facade elements, evidences of generalized deep deterioration in the consoles and in the trabeations, "black crusts" formations, advanced deterioration of marble elements, partial marble detachments and cracks.

Before Restoration : The capitals with evident micro-cracks and decohesion, sealings and partial reconstructions with not appropriate cement mortars and mastics. The lateral north volute deeply deteriorated.

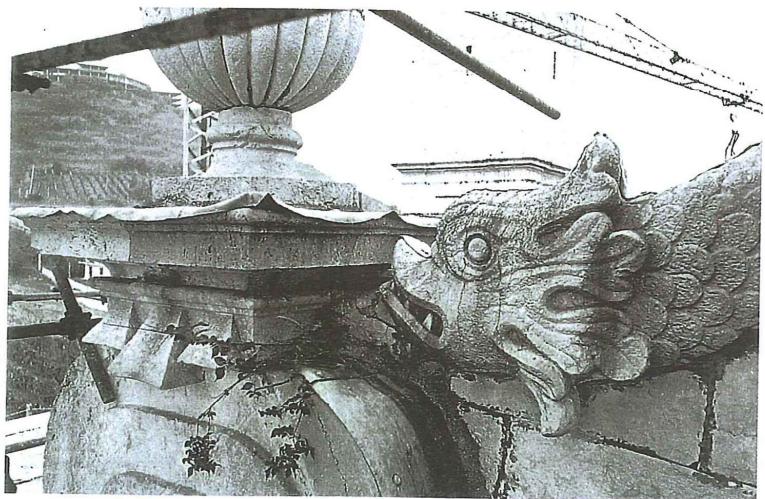


TECNOCHEM[®]
ITALIANA SPA



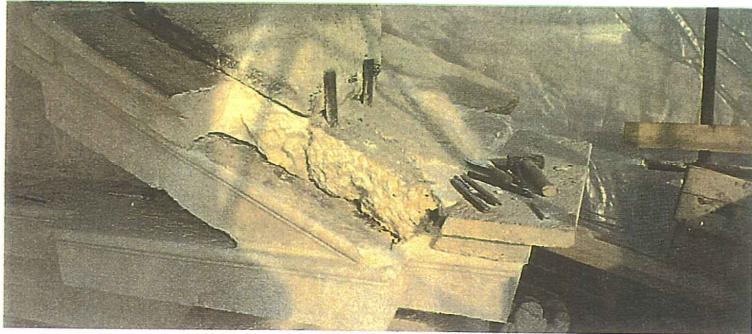


Before Restoration : "black crusts" formation consequent to the sulphatation phenomena with englobation of atmospheric polluting microparticles.
Evidences of static precariousnesses.

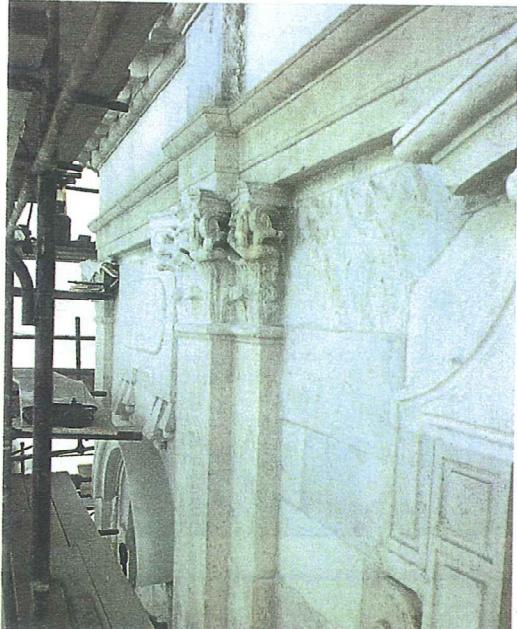


TECNOCHEM[®] **TECNO ECO[®]**
ITALIANA SPA **LOGIC CHEM**





In course of Restoration : missing parts reconstruction with Spartyte® MAR GRIP ZB in big thicknesses sometimes connected with stainless pins.



In course of Restoration : microcracks and cracks sealing and partial reconstruction of missing parts have been executed using Spartyte® MAR GRIP ZB, different versions according to chromatic tonalities needed.

Basical physico-mechanical parameters of the product formulations needed :

| | |
|-----------------------------------|------------------------------|
| Elasticity Modulus range: | 10.000-25.000 MPa |
| Compressive strength range: | 30-60 MPa |
| Flexural strength range : | 7,5-9,5 MPa |
| Adhesion to the support : | 1-4 MPa (direct tensile) |
| Water vapour permeability range : | μ 50-150 (DIN 52615) |
| CO2 permeability : | μ 1000-3000 |
| Water capillary absence : | >2, <7 mm WTA determinations |

Facades hydrorepellent impregnation :

WP 55 sylane- polysilossane composition : 1 treatment every 10 years (150-250 gr/m²)



TECNOCHEM[®]
ITALIANA SPA



After Restoration



NOTE : 25 years after the restoration the state of conservation is excellent



TECNOCHEM[®]
TECNO ECO[®]
LOGIC CHEM
ITALIANA SPA

