

Conservation of Roman Cement facades.

Trade Academy in Krakow
and other examples.

Konservering av Roman sementfasader.

Handelsakademiet i Krakow
og andre eksempler.

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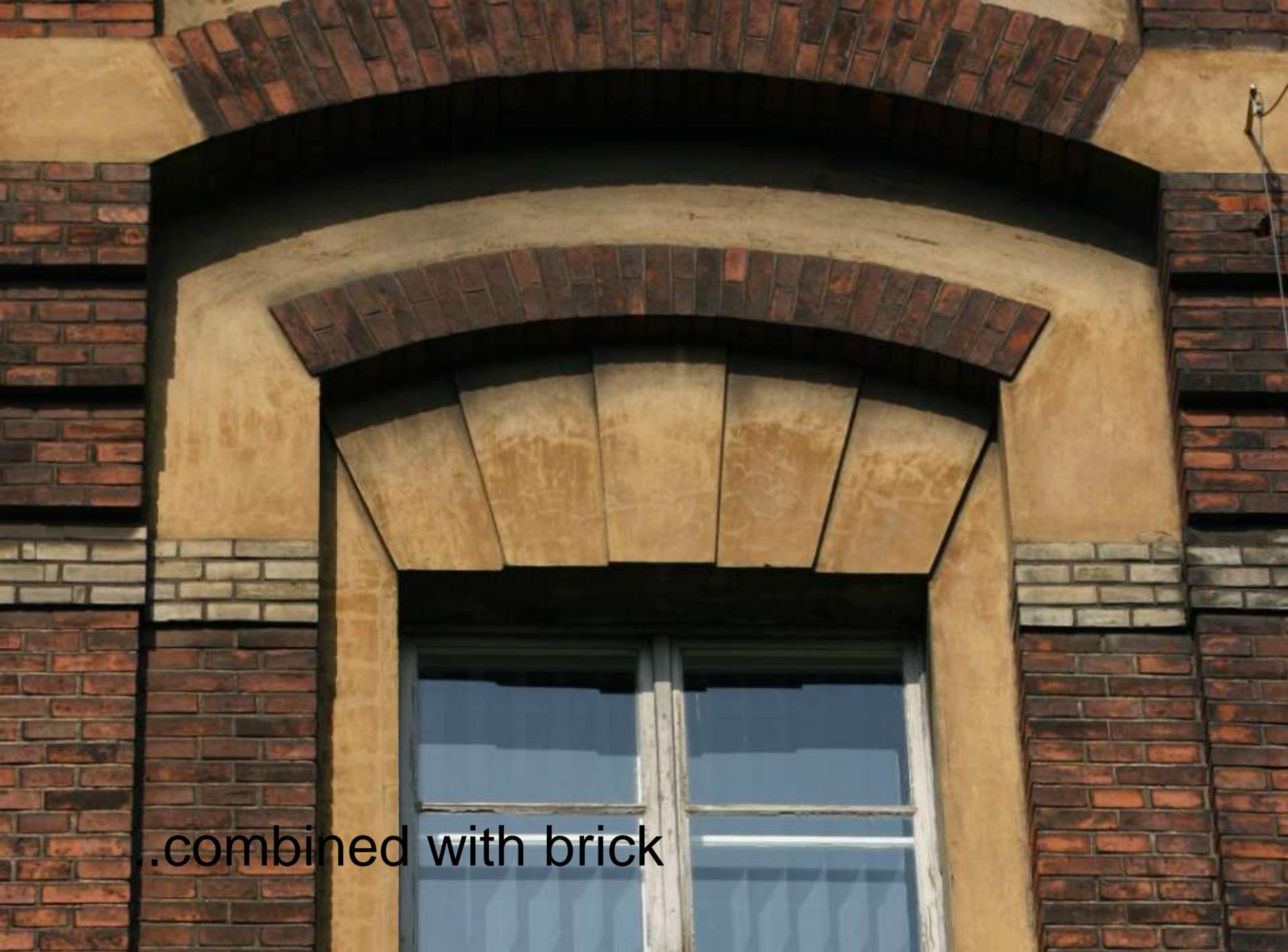


Kraków

has preserved a unique ensemble of Roman cement facades in their primary state from years 1870-1914



...fully rendered



.combined with brick

.metal ornaments



or stone



Current conservation practice

repairs with
incompatible
Portland cement
mortars



irreversible coating with
modern paint

Municipal school, 1908-1911



a facade repainted
in a colour resembling
the original appearance

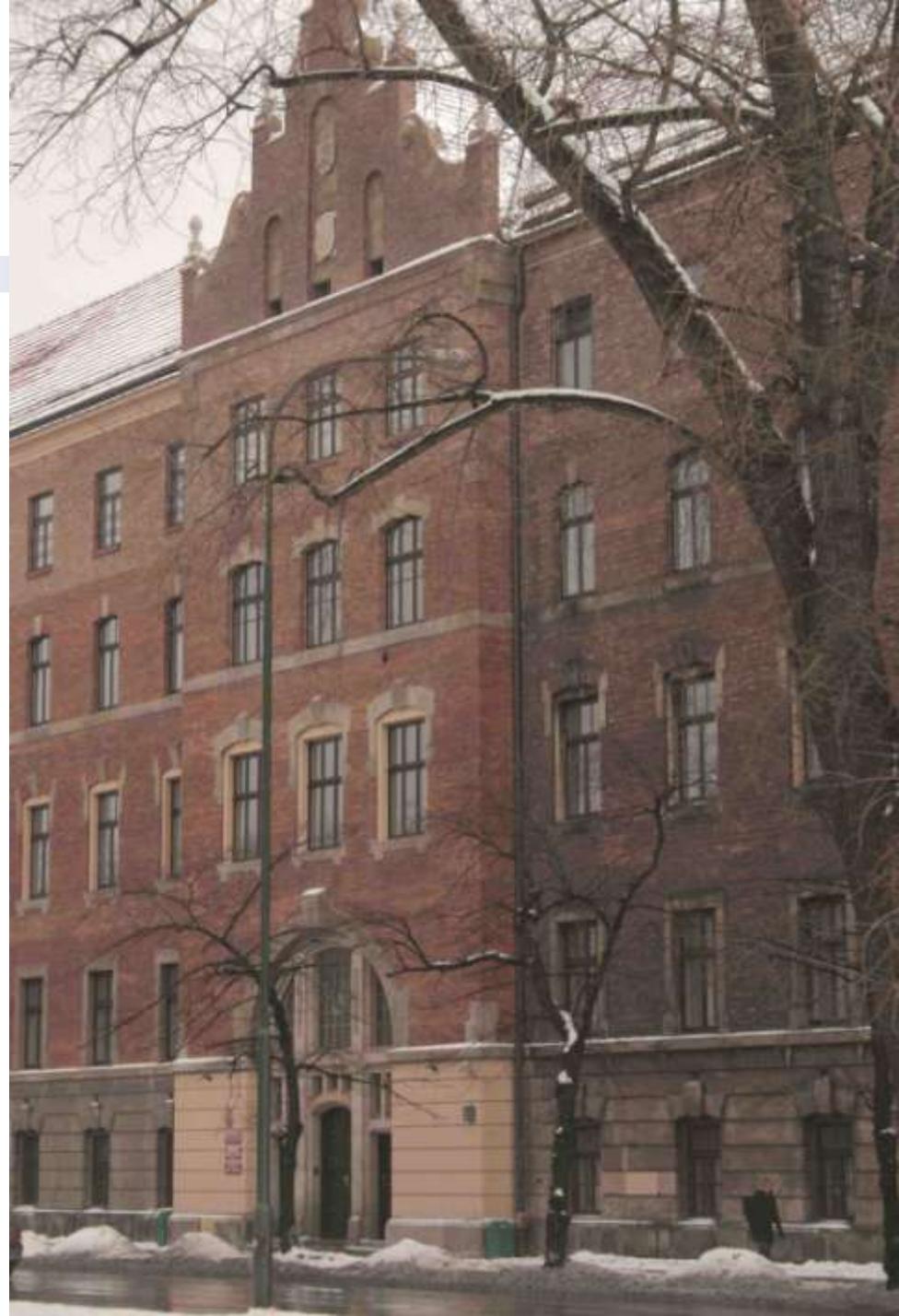
Communal Savings Bank, 1881-1883



painting over is selected
even if Roman cement
renders cover a fraction
of the facade and give
a good aesthetic effect
with patinated brick

Agricultural College

1908-1911





no comment is
necessary!



Station of the Electricity
Board

1908-1913







Efforts to find allies

Municipality of Krakow

Regional Conservation Authorities

local conservation community

local funding body – the Citizen's Committee of the
Renovation of Krakow

Survey of municipal schools



joint activity of the ROCEM project
and the Municipality of Krakow

18 schools were built between 1879-1914

12 schools containing Roman cement renders were
surveyed and investigated

3 schools can be restored to a primary aesthetic
appearance

School 1 – 1903-1904
brick/Roman cement renders



School 2 – 1908-1910

brick/Roman cement renders

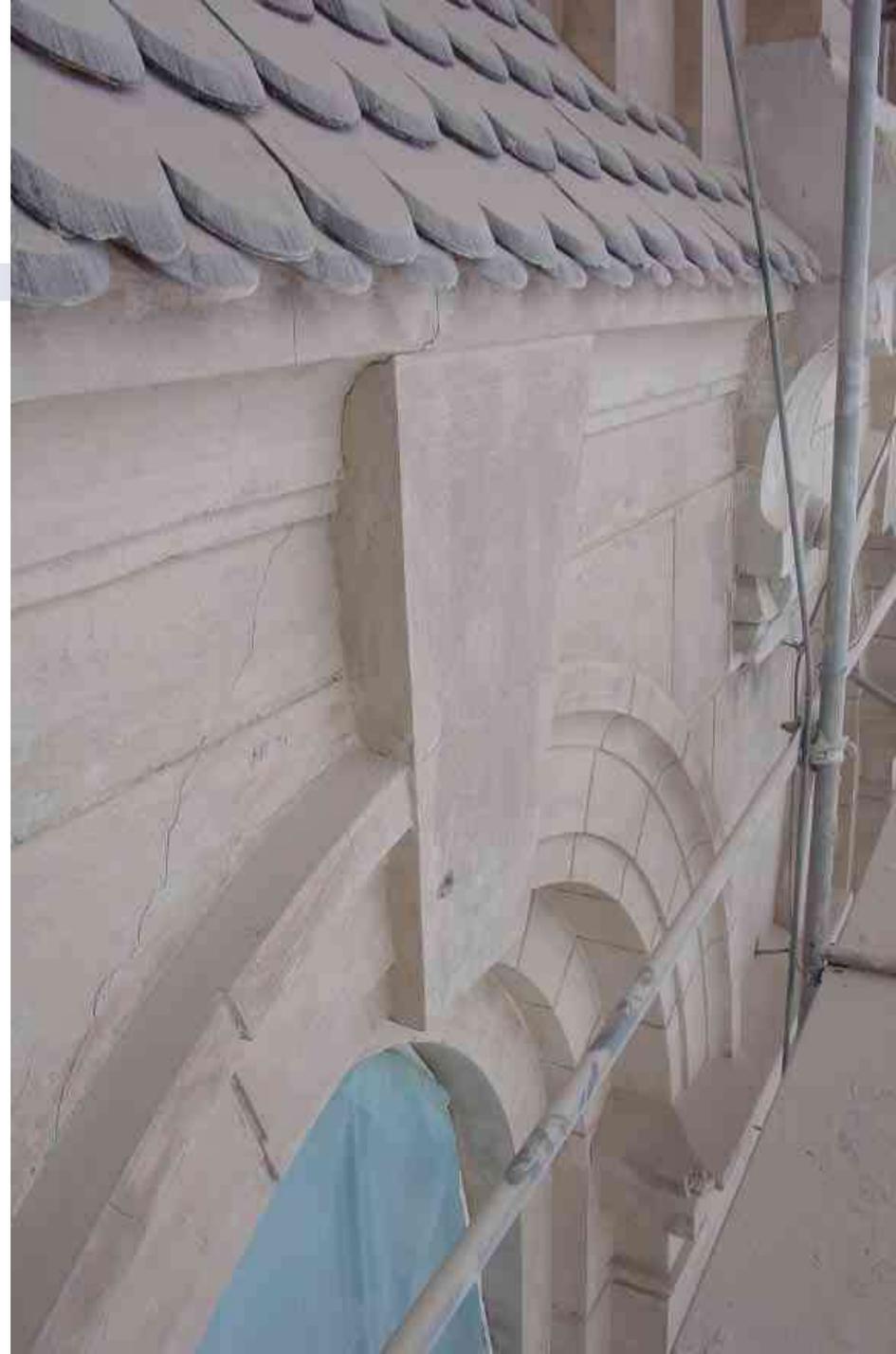


School 3 - Trade Academy – 1904-1906

Roman cement renders



Renovation of the Trade Academy 2005-2007



Cleaning with superheated water and sandblasting



Cleaning with sandblasting



Very limited damage
of Roman cement renders



Cracked and stained surfaces



The missing part of the cornice is reconstructed using Roman cement as a binder and natural red-coloured sands (Remmers Funcosil Farbsand) as an aggregate



Rusted iron armature, hooks and nails were sandblasted and protected against corrosion with Remmers Epoxi Rostschutz

The fresh layer of the coating was sprinkled with sand to facilitate the adhesion of the repair



Coating of the entire architectural surface









Roman and Portland cement renders were used by the architect at the base to imitate different varieties of stone





P
Kamery

P

P

REKONSTRUCIA

Water repellent treatment

- after one month, using solution of silicone water-repellent agents in white spirit Funcosil SL, recommended for limestones and lime based mortars
- aims of the treatment:
 - to protect the freshly restored facade against the infiltration of rain water
 - to preserve the aesthetic effect
 - to prevent the formation of whitish bloom (calcium carbonate efflorescence)
 - to reduce soiling

Roman cement repair mortars developed



- Vergussmörtel RZ – grouting and injection of cracks and voids
- Fugen- und Ergänzungsmörtel RZ – universal mortar for the repair of joints and damages, as well as rendering and finish layers
- Stuckmörtel RZ - mortar for casting architectural details and repair of stuccoworks
- Feinspachet RZ – material to produce thin finish layers to re-integrate aesthetically or imitate the surfaces of the Roman cement renders

Freiburg Cathedral – renovation of joints in the masonry



Freiberg Cathedral – renovation of joints in the masonry



Seat of the Architect
Association,
Katowice, Poland
– conservation
of stuccowork



Seat of the Architect
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– conservation
of stuccowork



Seat of the
Architect
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– conservation
of stuccowork



Municipal school
in Tarnow,
Poland
conservation
of the crowning
cornice, after
cleaning



Municipal school
in Tarnow,
Poland
conservation
of the crowning
cornice



Thank you for
your attention!

