

## **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





prior to the ROCEM  
project only **once**  
naturally aged Roman  
cement renders were left  
unpainted after cleaning

‘Under the Spider’ house, 1889







# 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 ROCCEM 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







# 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





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



Municipal school  
in Tarnow,  
Poland  
conservation  
of the crowning  
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Thank you for  
your attention!

