



LIME PAINT

Lime manufacturing

Lime proceed of lime stone thermal décomposition.



Calcium oxide obtains is called quick lime, it's very instable and it will react with water.



If the lime stone, the calcium oxide is contact with other oxide (SiO_2 , Al_2O_3 , Fe_2O_3), it also react to produce hydraulic compounds.



This reaction reduce the energy needed to produce hydraulic lime.

Result of burning

Modern designation

LC

N
H
L

Natural cement

C
E
M

Lime paint

Lime has always been used to produce lime paint

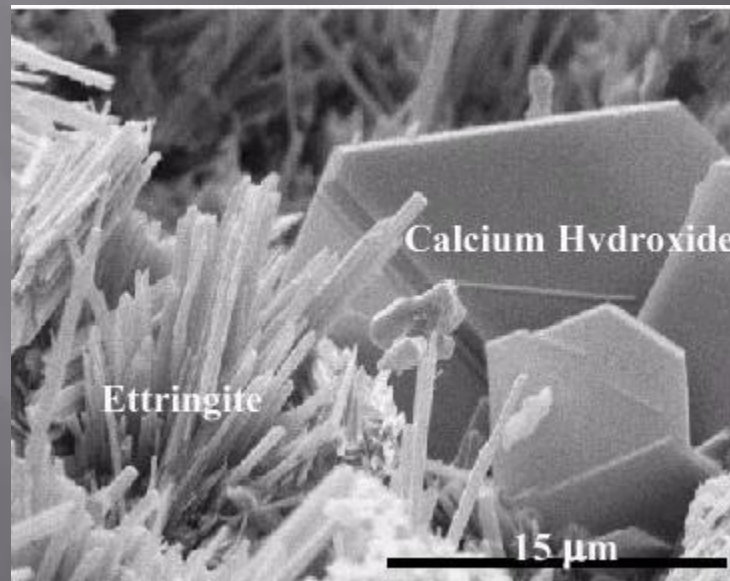
The first use of lime paint was a protecting coat
OPUS ALBUM in vitruvius

Because of the water needed (generally more than 75 %) lime paint is in fact a soft chalky coat

Since the beginning, men try to increase the strength of lime paint with addition

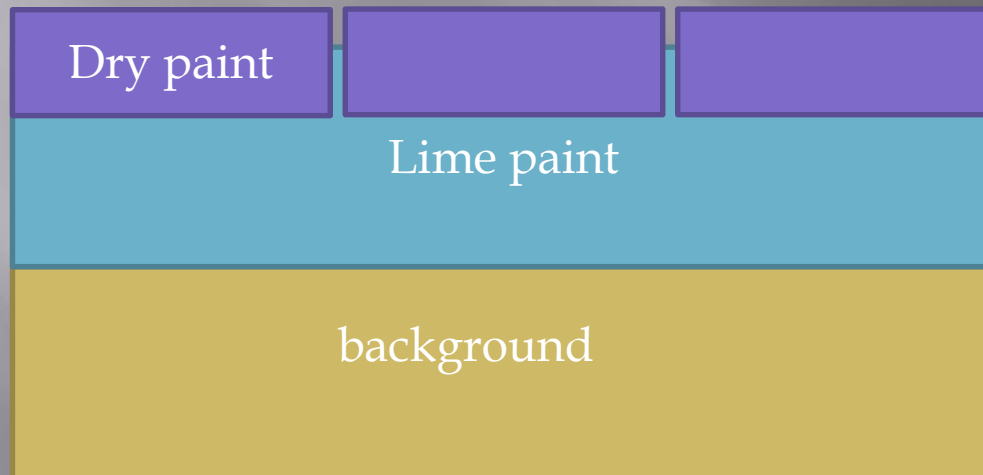
But panacea didn't exist and lime paint must be well understood to avoid problems

Lime paint is a stone sacrificial protection
Its main purpose is to protect the masonry while
giving a aesthetic finish on the building
Its high alkalinity sanitize the wall



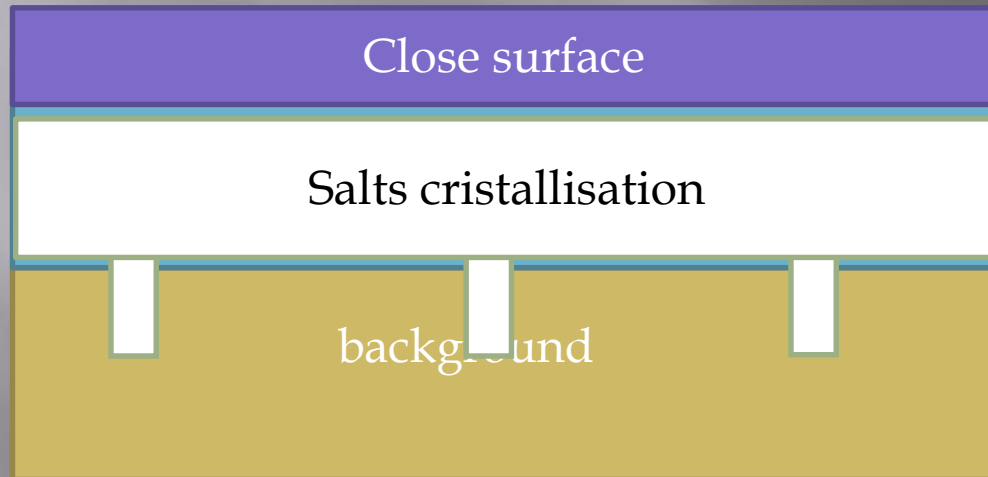
No control of the water absorption of the background, or working with a too concentrate product.

The thickness of the paint doesn't allow an uniform drying. The surface get dry and shrink but on a still wet product



The result is a micro cracking “lizard skin”

Overwork the paint or waterproof the surface if the background contain salts



Changing of colors can have 4 main origin

- Bad control of carbonisation
- Salt cristallisation
- Oxidation of metal (goethite)
- Use of organic pigment



Flacking of lime paint

- Use of more organic than needed



- Application on dust (gypsum...)



The most important thing with lime painting is to take the time to do a right job.

Supports preparation

application

Curing

Le temps ne respecte pas ce qui se fait sans lui. (Paul Morand)

Time doesn't respect what is done without him