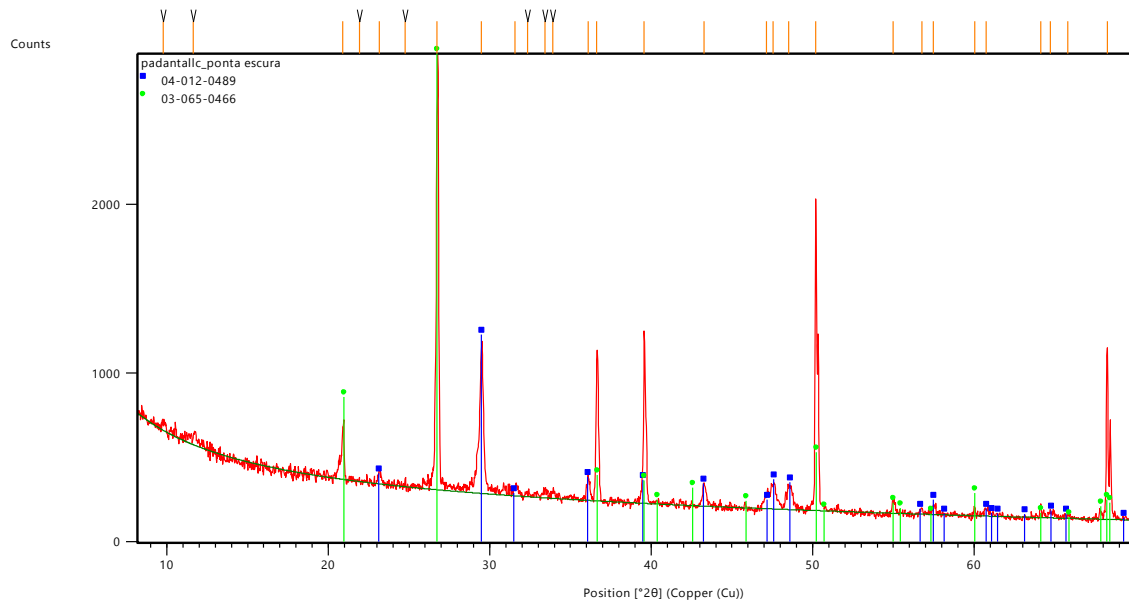


## Supplementary material

X-Ray Diffraction spectra of samples collected from the formed and the adobe walls of the case study building before rehabilitation work. Four spectra (1S – 4S) are presented from the formed wall to show how identification was made to all the situations and one for the adobe wall (5S).

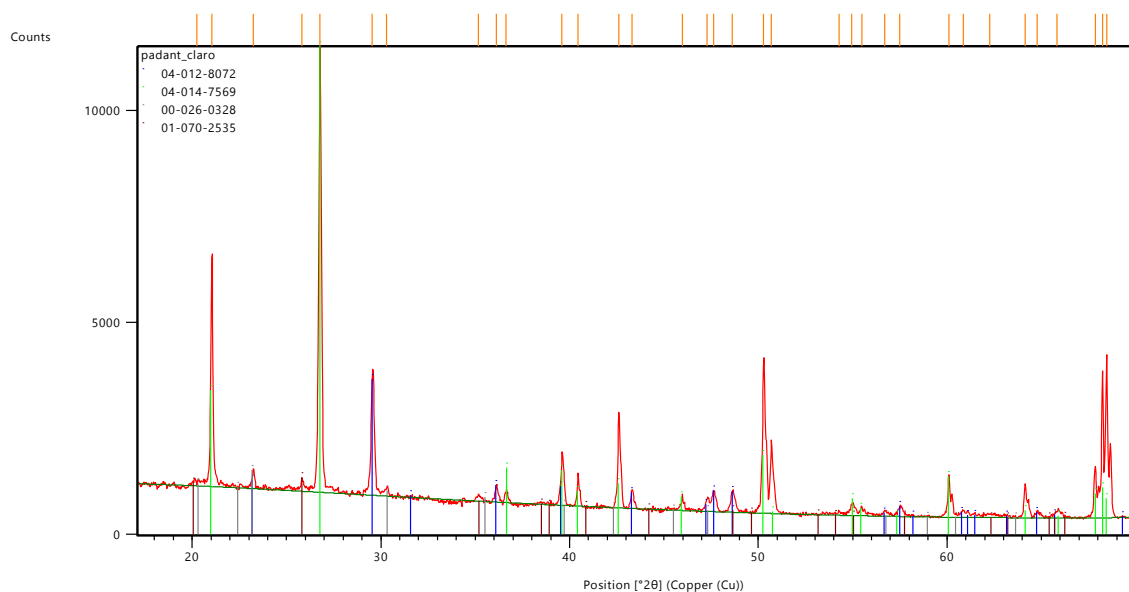
Formed Wall – Spectra in Figures 1S to 4S

Figure 1S



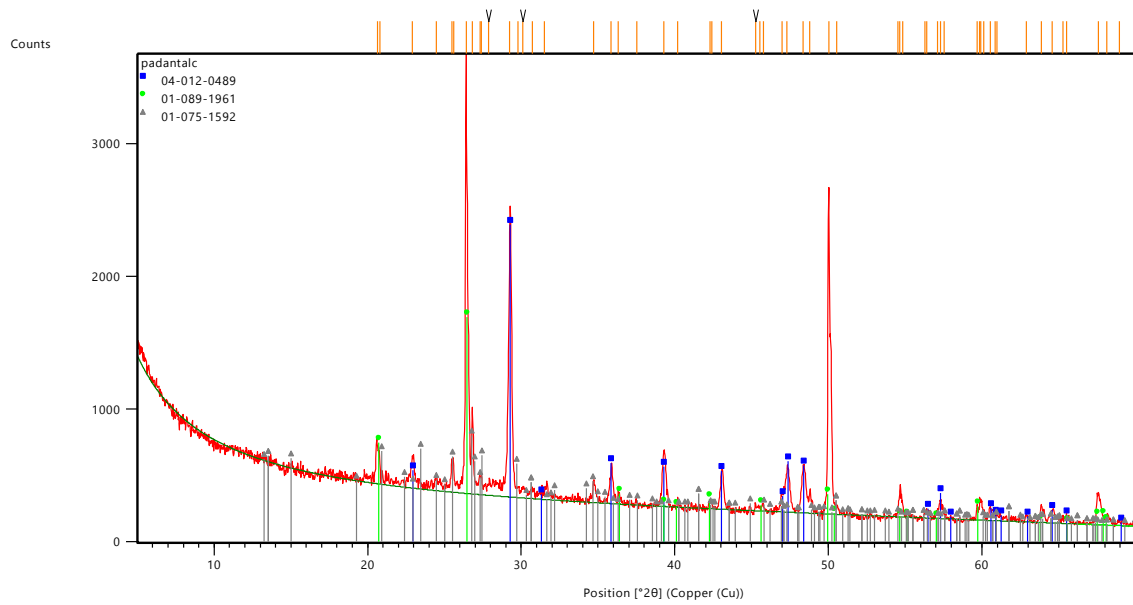
The identified solids from this spectrum were: silicon dioxide (78%, green) and calcium carbonate (22%, blue).

Figure 2S



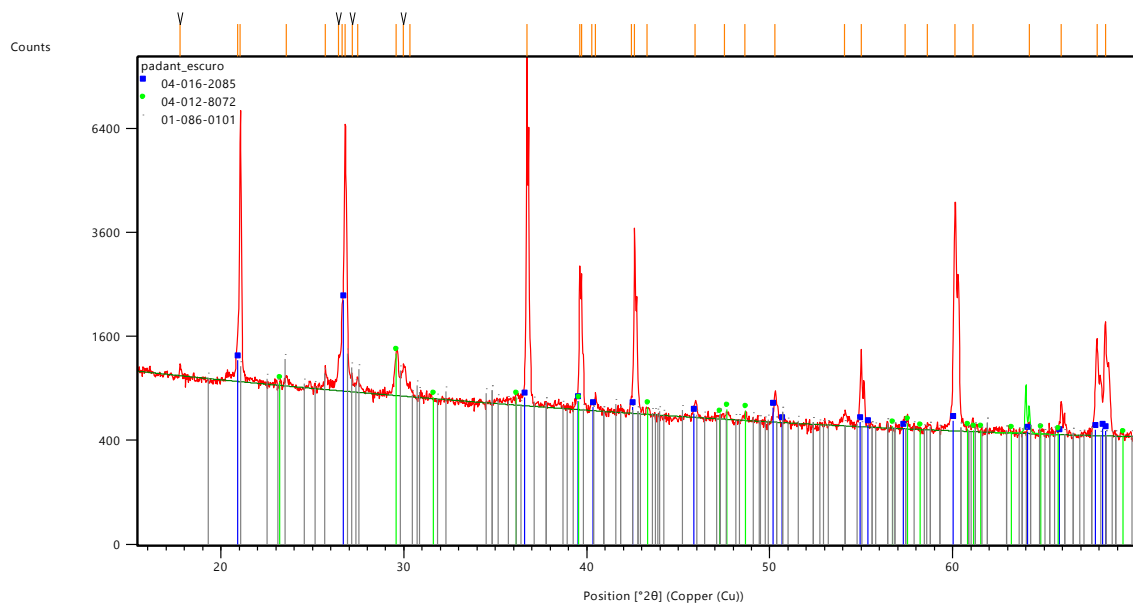
The identified solids from this spectrum were: silicon dioxide (green and brown), calcium carbonate (blue) and traces of calcium sulfate as anhydrite (grey). No quantification was possible.

Figure 3S



The identified solids from this spectrum were: silicon dioxide (22%, green), calcium carbonate (41%, blue) and a feldspar (37%, grey)

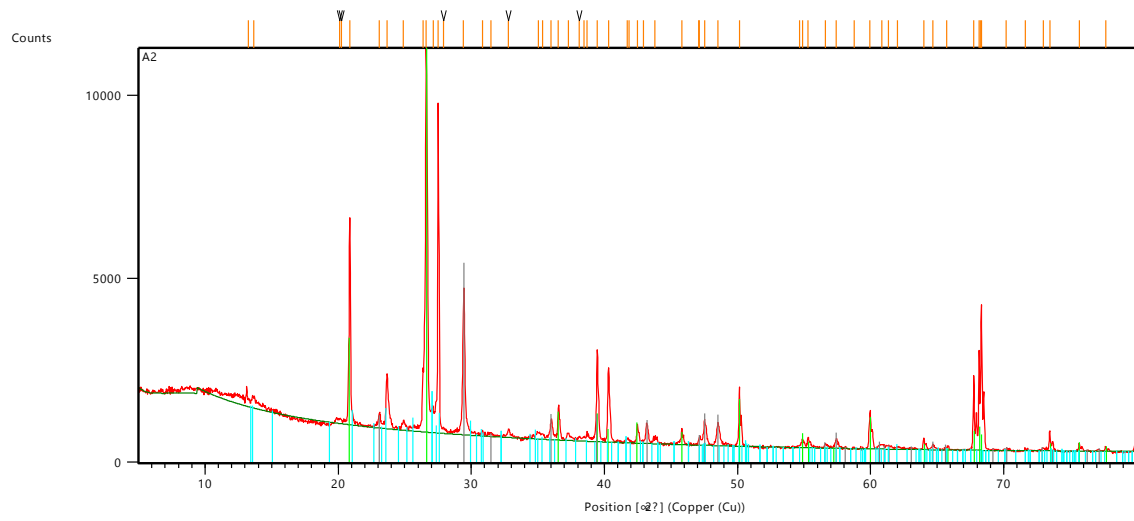
Figure 4S



The identified solids from this spectrum were: silicon dioxide (24%, blue), calcium carbonate (9%, green) and a feldspar (67%, grey)

Adobe wall – sample collected before rehabilitation work

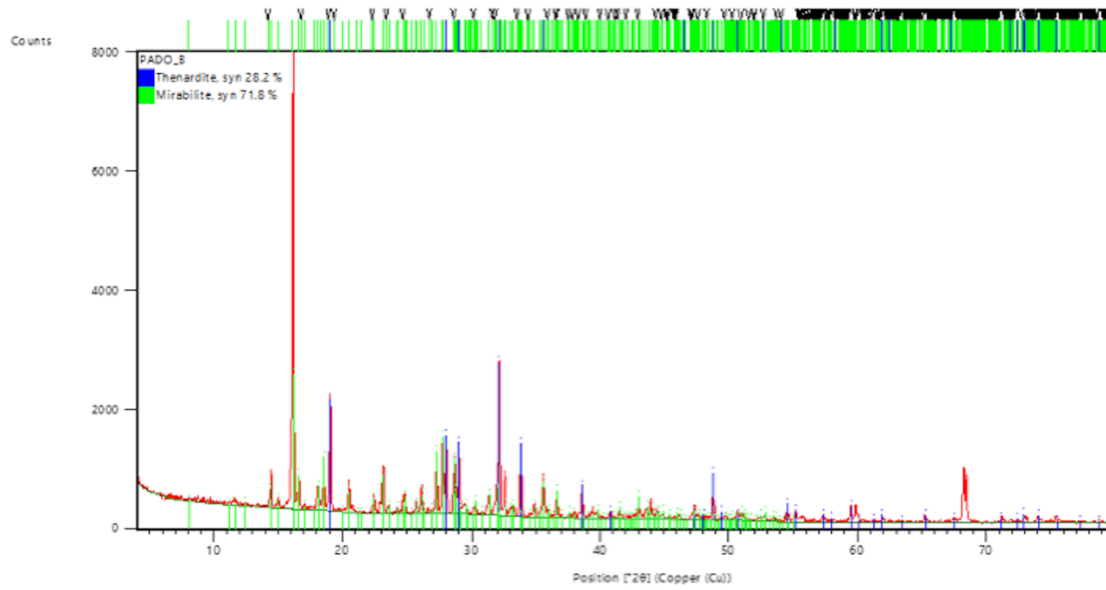
Figure 5S



The identified solids from this spectrum were: silicon dioxide (59%), calcium carbonate (20%) and a feldspar (21%)

# Efflorescences – thenardite and mirabilite

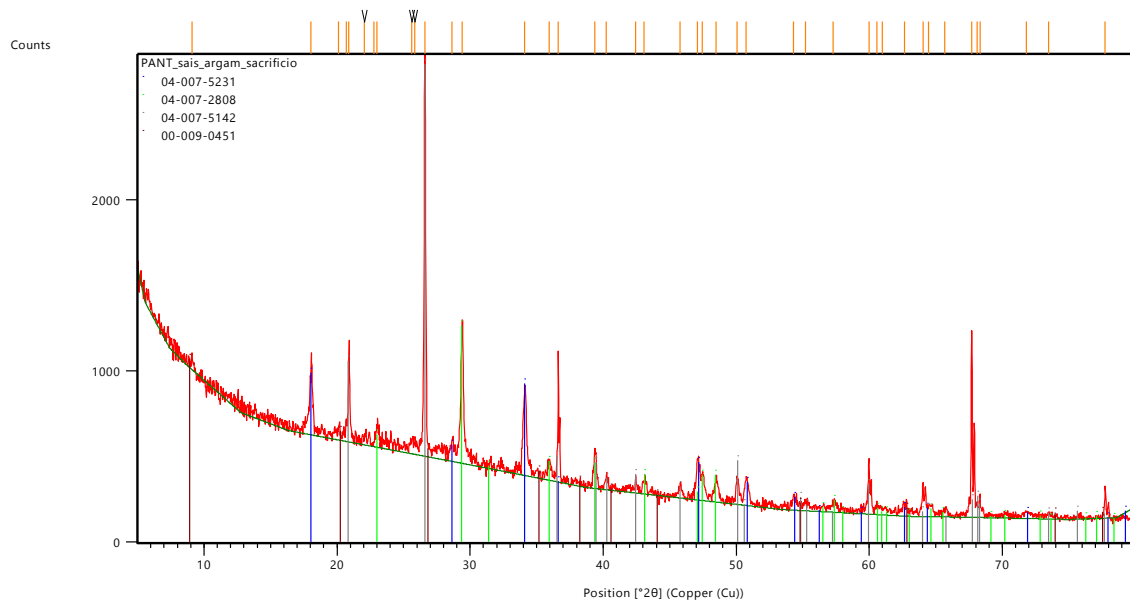
Figure 6S



Diffraction pattern of efflorescences from the walls of the case study building (Thenardite – 28.2% and Mirabilite – 71.8%).

Sacrificial mortar (air lime and sand with non-calcined diatomite) collected seven days after its application on the formed wall

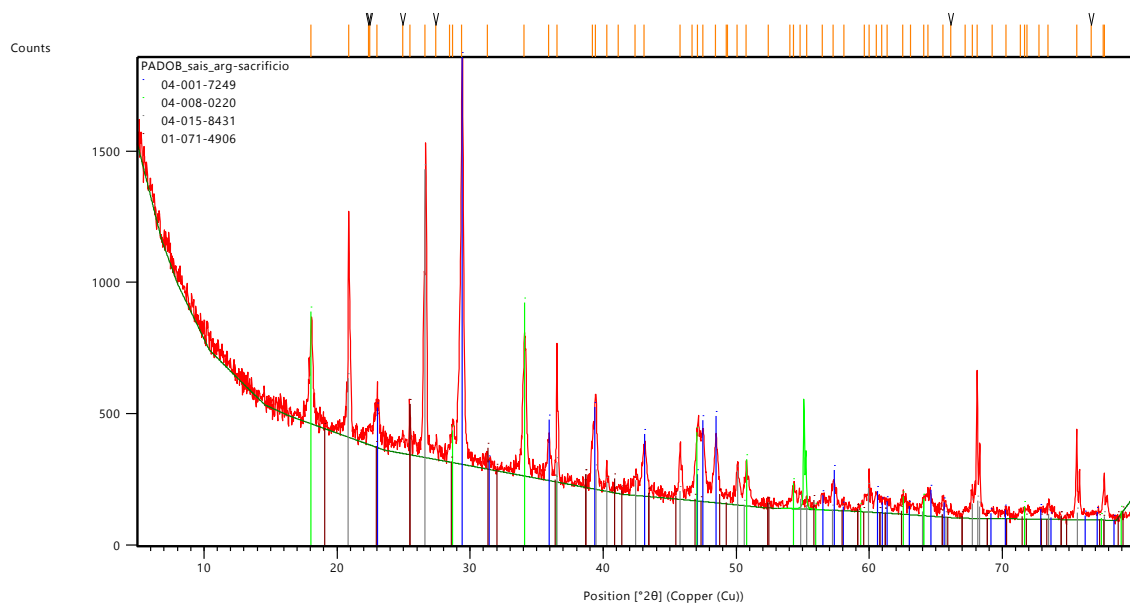
Figure 7S



The identified solids from this spectrum were: silicon dioxide (grey), calcium carbonate (green), calcium dihydroxide (blue) and an aluminosilicate clay (brown). No quantification was possible.

Sacrificial mortar (air lime and sand with non-calcined diatomite) collected seven days after its application on the adobe wall

Figure 8S



The identified solids from this spectrum were: silicon dioxide (32%, grey), calcium carbonate (43%, green), calcium dihydroxide (16%, blue) and calcium sulfate as anhydrite (11%, brown).