

Title: Beauty of Ageing

Subtitle: Use of directed ageing processes for modernisation of the industrial complex of Prato Macrolotto 1

Author: Jakub Murawski

Supervisor: Elisa Cristiana Cattaneo

Abstract

I became fascinated with the processes of ageing and degradation in architecture and discovered that what was commonly perceived as signs of degradation made a building or some of its parts more interesting and attractive. I wondered whether it would be possible to induce such processes in a controlled way and enhance aesthetics of such buildings preventing further decay and demolishing.

I decided to do a systematic study to renovate existing postindustrial complex of Macrolotto 1 in Prato. Its development plan requires partial functional change and revitalisation. I propose that instead of demolishing and building new structures, it is possible to use a different method where appropriate.

By a series of specific interventions on the facades, selected walls and immediate surroundings of the existing structures, I induce natural processes of change that would be aligned with the objectives of existing development plan but more eco-friendly and integrated with the environment.

My dissertation consists of two major parts. The first is a study of some induced processes like oxidation of metals and growth of lichens on the facades and building walls for the revitalisation purposes. The results are discussed in Chapter 1 and 3 and presented in the "Book of details".

The second part is an architectural project that applies these processes to the Lotti 4/5 and 27 of Macrolotto 1, as presented on separate panels. All fences dividing buildings from the street were removed to create open public spaces. Areas with high sun exposure were treated to allow certain types of vegetation to appear. Concrete ground surfaces were treated to form specific regular patterns either by newly planted trees, which will crack ground surface with their roots, or by grooving the surface to give room to vegetation.

Shaded and, as a result, humid walls were either coated with metallic plates covering facade surfaces or decorated with metal inserts. Raw metals and alloys chosen for these treatments were selected according to desired nature of transformation and described in the experimental section. Ground surface was treated by the means of metallic poles and land levelling. As a result, I obtained spaces where architecture is integrated with its surrounding landscape.

The project presents a novel approach to the modernisation and preservation without the necessity of demolition or rebuilding. Possible scale enlargement of this method permits for more ecological and sustainable designing practice.

Key words: Prato, Macrolotto, renovation, architectural ageing, time in architecture