

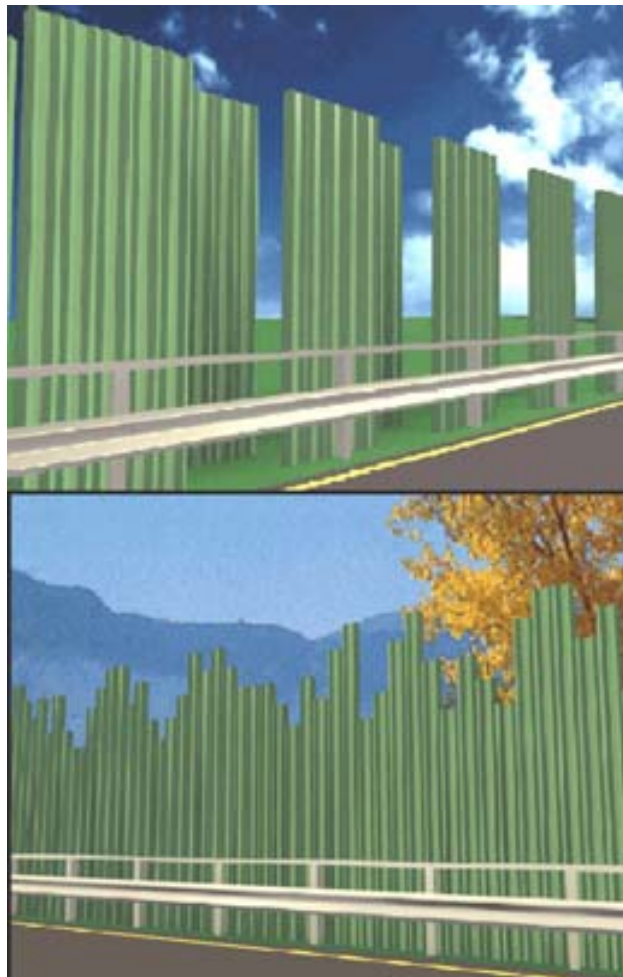
Project Recycle. Recycled plastic acoustical barriers (MPE)

by Antonio Calasso

Tutor: Giorgio de Ferrari, Alfredo Sacchi

The necessity to recycle the great amounts of plastic has contributed to put in action many experiments which concerning heterogeneous plastic in Italy has reached a proportion to evaluate about 30000 tons each year. The choice of acoustical barriers (important equipments in lines of communication seen dally by so many people) has arisen the opportunity to deal whit other subjects concerning environnement.

The project is led by the attention to different problems about the environmental impact because of the size of these structures, by the need to develop the capacity of these materials extrusive thecnology, by the care about their discharge, by the research of new ideas about acoustical barriers.



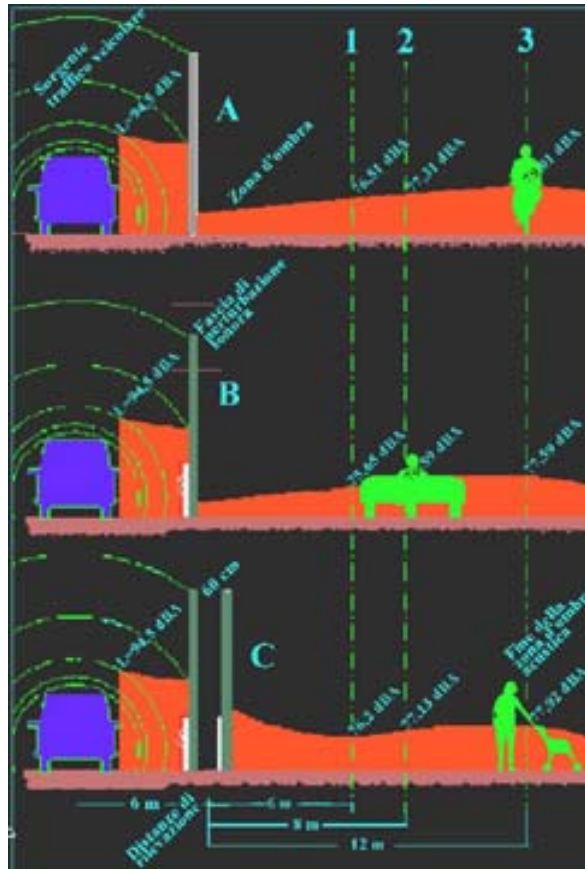
Taking advantage of acoustical concepts and devices, among which the sound interference phenomenon, two different suggestion have been put forward: the first one at variable height which creates a sound perturbation at the top where there is the flow of diffracted waves, the second one put at regular spaces that make the same perturbation staggering the two levels.



The expressive aspect for variable height barriers exploit the extrusion power, the possibility to have similar size elements at different height, to get an undulating landscape specifically a skyline to become part of it to get a more unexpected environment for city and suburban routes.

The model of barrier at regular space comes from the idea that on the road the driver and other people in the vehicle's visibility is given to the street though there is a natural need to go out of it looking for elements to break dullness. When there are barriers the search goes toward acoustical walls which keep their second nature of real visual borders. The need to break these borders with our eyes is put into effect by the barrier at regular intervals which shows the landscape at the back like in a film.

The performance of barrier at constant height (like those made of cls, glass, wood and other materials) has been compared with the two kinds of barriers reached at a planning stage (tests done in Galileo Ferraris Institute in Turin) and the results have been debated and evaluated according to planning expectation.



The two proposals have achieved good results compared to the reference model from an aesthetic point of view so as possible changes in the city and suburban landscape without becoming an artistic event, by keeping the product industrial significance.