



“Gheorghe Asachi” Technical University of Iasi, Romania



PLASTIC WASTE STORAGE AS MULTIFUNCTIONAL „GREEN” MODULES FOR TERRITORIAL USE

Doina Mira Dascălu*, Roxana Negrea

*University of Agricultural Sciences and Veterinary Medicine, Spec. of Landscape Architecture, 3,
M. Sadoveanu Alley, 700490 Iasi, Romania*

Abstract

The roots of this study are generated by the problems of plastic waste accumulations: insufficiency of storage spaces, storage costs and outgoings of plastic waste recycling, recovery, decomposition or reprocessing. The paper develops and details a modular prototype, for multifunctional territorial use, offering non-polluting and aesthetic possibility of plastic waste storage. The progress in the related fighting pollution areas have been approached, such as waste management through ecological design and the widespread use of green walls new techniques. The construction techniques are designed and calculated in order to be easy feasible from the technical and costs point of view. The proposed prototype has a metallic resistance structure in which compressed bales of unprofitable plastic waste (PET and plastic bags) are incorporated. The exterior surface of this structure is aesthetically designed, dressed with decorative-treated pieces of wood, also with vertical and horizontal boxes with selected plants, resistant to pollutants and climate, requiring a minimal maintenance. Regarding the multifunctional utility, the modular elements can be used as: anti noxious, noise, wind and snow barriers protecting various areas and traffic routes; enclosure or masking elements for various types of territorial sites; vertical support for territorial public advertising/information boards. For reasons of environmental sustainability, this proposal should be only an interim ecological solution, until efficient and low cost decomposition solutions for all kind of plastic waste will be found.

Key words: plastic waste, storage, territory, vegetation

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* Author to whom all correspondence should be addressed: e-mail: doinamira@yahoo.com; Phone: 0040733383989