

TUESDAY OCTOBER 3 MORNING



SESSION H3 / 9:00-10:40

WORKSHOP: ENVIRONMENTAL EDUCATION - CREATING SOCIAL VALUE FROM WASTE MANAGEMENT THROUGH ARCHITECTURE

Chair / *Presidente*: Israel Alba (ES)

Infrastructures are key to the transformation of the city and the territory in an increasingly and profound way, with a future projection, in which a great migration from the countryside to the city is foreseen, places where in a few years the greater part of humanity will be concentrated. Since this position, infrastructures appear as a **necessity** and **opportunity** for the development of the city of the XXI century. Nowadays, in our planet we produce more than 1.300 million tons of urban waste per year. Where does this waste go?

A **waste treatment plant** must have a positive feedback on the whole community, through the process of waste treatment itself and the energy production obtained therefrom. However, the social benefits and educational efforts that we propose from our waste treatment plant model are geared towards the younger sectors of society.

Our projects are conceived as real public facilities, capable of eliminating the negative connotations associated with this type of facilities, incorporating an educational and cultural center that relates the energy and the environmental potential of the plant, making all sectors of society be involved in the process, because they also play an important role in the management of our waste. As an observatory, the plant is a place to study, understand and contemplate contemporary society, which relates waste, energy and the city.

As architects, we believe that preparation, through education, represents a fundamental aspect in the contemporary issue of waste and the problems that can be associated with it. For this, we propose to listen to the different sectors and collectives of our society, concerned about the impact that a plant can produce on its environment, and incorporate their proposals with the objective of improving the management of our waste and our relationship with environment.

10:40 - 11:10 Coffee break

SESSION H4 / 11:10-12:50

WASTE MANAGEMENT AND THE RELATION WITH THE CITY AND THE COMMUNITY

Chair / *Presidente*: Elena Cossu (IT)

J. Muller (US)

The architecture of waste: designing new avenues for public engagement with trash

S. Massaro (IT)

Rethinking the spaces of waste management infrastructure: towards integrated urban strategies to avoid urban solid waste in the contemporary city

M. Shofet, L. Belcic (US)

Social intimacy with waste: rethinking the interface between waste infrastructure and society

TUESDAY OCTOBER 3 AFTERNOON



SESSION H5 / 15:30-17:10

ARCHITECTURE OF WASTE MANAGEMENT FACILITIES

Chair / *Presidente*: Israel Alba (ES)

J.M. Nicás, F.J. Padilla (ES)

San Claudio sewage treatment plan volume and outdoor envelope studio, San Claudio (Oviedo, Spain)

M.L. Nobile (IT)

Architecture as a tool. The design of the recycle waste management centres, good practices and research in Europe

M. Piscitelli, F. Piscitelli (IT)

Facilities for separated waste collection and waste minimization in a small urban area: the project of a waste collection center and three urban composting facilities

P. Vasino, F. Bernar, L. Conti, P. Simone (IT)

Design of a sludge treatment plant in Northern Italy: from segregation to landscape integration

17:10 - 18:00 Coffee break + Poster discussion

SESSION H6 / 18:00-19:40

WASTED LANDSCAPES

Chair / *Presidente*: Maria Cristina Lavagnolo (IT)

M.C. Lavagnolo, R. Malesani, L. Stendardo (IT)

Urban mining and water recycle for abandoned trans urban areas (DATA Project)

M. Rigillo, L. Amenta, A. Attademo, L. Boccia, E. Formato, M. Russo (IT)

Eco-innovative solution for wasted landscapes

N. Slingerland, N.A. Beier, G.W. Wilson (CA)

Enhanced geomorphic design for rural waste-scapes

C. Padoa Schioppa (IT)

Notes from the underworld. Recycling strategies for the Sulcis-Iglesiente mining compound

WEDNESDAY OCTOBER 4 MORNING



SESSION H7 / 9:00-10:40

ARCHITECTURAL ISSUES IN LANDFILLING

Chair / *Presidente*: Raffaello Cossu (IT)

I. Alba (ES)

Analytical tools in landfill transformation

E. Cossu, A. Artuso (IT)

Afteruse of landfills

S. Mariappan, N.K. Devanayagam, S.A. Badarudin, F.H. Hood (MY)

Sustainable development of existing landfill by performing vertical expansion

F. Chen, Z.B. Luo, Y.J. Yang, J. Lv, G.J. Liu, J. Ma (CN)

Designing e-waste landfill as a landscape infrastructure: a case study based on public perceptions in Nanjing, China

10:40 - 11:10 Coffee break

SESSION H8 / 11:10-12:50

FUNCTIONAL REQUALIFICATION OF OLD LANDFILL SITES

Chair / *Presidente*:

D. Cinti (IT)

Requalification of pit lakes and environmental recovery of an MSW landfill located on the floodplain of the Tiber river in Tuscany with a view to reuse and valorization of the river embankment

B. Bolaane, G. Lethugile, N. Nkhwanana (BW)

From Brownfield to a recreational facility: the case of the Old Gaborone landfill, Botswana

A. Długoński (PL)

Ecological utilization of constructional waste: a case study of Górka Rogowska landfill in Łódź city, Poland

C. Kobal, M. Betasolo, S. Magiri (PG)

Lae City second seventh landfill rehabilitation

WEDNESDAY OCTOBER 4 AFTERNOON



SESSION H9 / 15:30-17:10

WORKSHOP: ARCHITECTURE OF WASTE

Chairs / *Presidenti*: Hanif Kara, Leire Asensio Villoria (US), Elisabet Höglund (SE)

Waste to energy facilities offer a proven and increasingly attractive solution for dealing with solid waste in an era of rapid urbanisation and population growth though the managing of waste in this context is not a new problem.

In collaboration with Harvard University Graduate School of Design the presenters spent three years undertaking design research to dispel unjustified canards that spur lobbies against this type of waste treatment. Sweden (a community that is recognised as a mature and pioneering in the field) has been compared to the East Coast of the USA where land availability still encourages landfill as a primary method for disposal. The presentation will share the findings over the three years and unfold a methodology that reengages “design thinking” to ignite a renewed interest in this type of facility through an interdisciplinary approach. Techniques and operations in design will be showcased in the presentation as well as the impacts that have the potential to change consumer behaviour will be part of the discussion.

17:10 - 18:00 Coffee break + Poster discussion

SESSION H10 / 18:00-19:40

REUSE OF WASTE MATERIALS IN BUILDING PRODUCTS

Chair / *Presidente*: Carlo Pellegrino (IT)

S. Thorneloe (US)

Reuse of ‘waste’ in making building products

F.H. Smith, V. Tramontin, C. Trois (ZA)

The use of waste products as substitutes in sustainable construction materials as part of a circular economy

F. Kleemann, J. Lederer, J. Fellner (AT)

Circular economy in the building sector - Regional implications for resource management in Vienna

M. Struk (CZ)

The effects of waste management company change on municipal solid waste expenditures