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REFLECTION

PERSONAL INFORMATION

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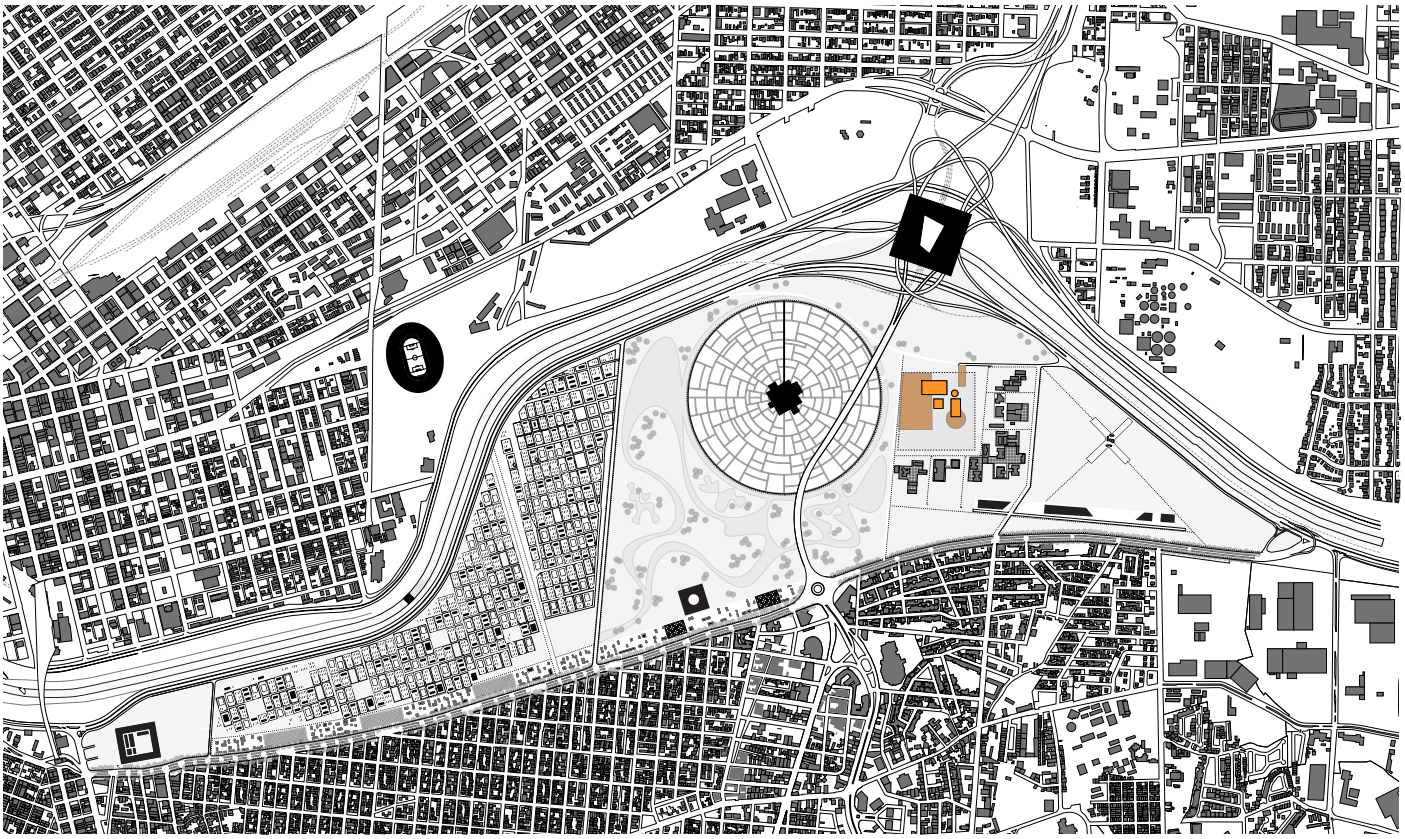
STUDIO

Complex projects, El Paso-Juarez Studio
Chair: Kees Kaan
Mentors: Hrvoje Smidihen, Karel Vollers

GRADUATION PROJECT:
Waste Management Centre (WMC)



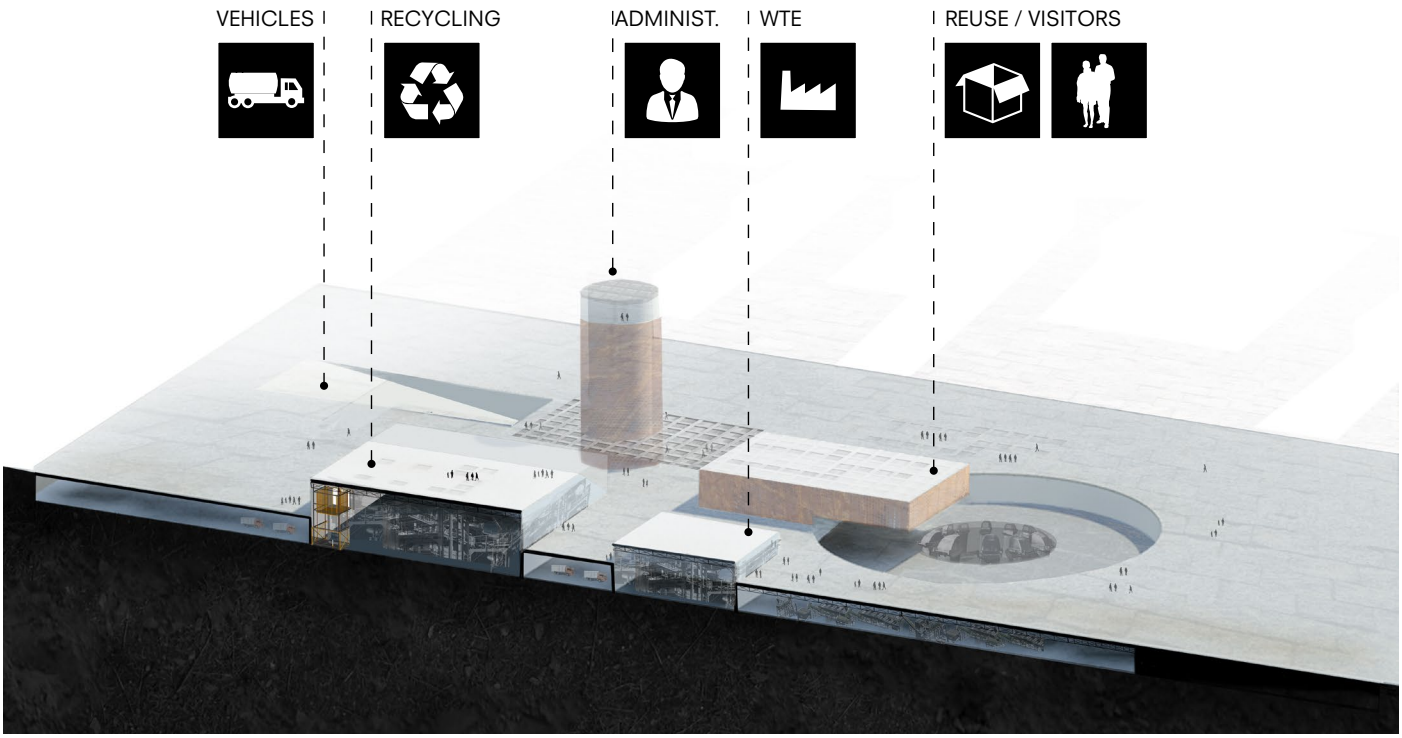
Chamizal area and situation of the site

The relationship between research and design

Design of Waste Management centre is based on research. Topic was chosen responding to garbage issue in border region noticed during the field trip. Research was a key factor selecting a site (former landfill that otherwise was unusable space), determining waste management issues in binational context, selecting program and materiality of the building.

None the less important was to understand existing waste management strategies in both cities in order to connect the facilities that are already there on both sides. This allows adding missing or disfunctioning program. Analysis of already built waste management facilities, their configuration, program and placement in the city context revieled the possibility to combine different waste management ways (recyclycling, waste-to-energy, reuse and visitor education) in one center. The program within the facility was arranged to make the process of waste processing as efficient as possible. Reuse building is a new concept that is based on Mexican reuse traditions, cheap labour and possibility to benefit from proximity to USA while trading waste that would otherwise end up in landfills.

All research was collected in Thesis book.



Basic program of Waste Management Centre

The relationship between the theme of the graduation lab and the subject/case study-chosen within this framework (location/object)

The Border studio focusses on design of a buiding in binational context at the USA - Mexico border. Chamizal area was given as a site and is situated on both sides of the border. Unique situation creates unique conditions and both countries can benefit from this proximity in case of colaboration.

Waste management as a topic was selected based on reasearch. Due to Free Trade Agreement and location in the USA – MEX border region there is an overload of urban and toxic wastes which are very poorly managed. This is one of the major problems in the Border region and causes soil and ground water contamination. American owned factories (Maquilas) due to cheap labour and more favourable legislation are located in Mexico. They generate enormous amount of waste which should be transported back to the country of origin but are dumped illegally instead. On top of that, toxic waste is just burned in brick kilns simultaneously causing a high pollution problems. A new waste management center is proposed as a mean to address above mentioned issues.

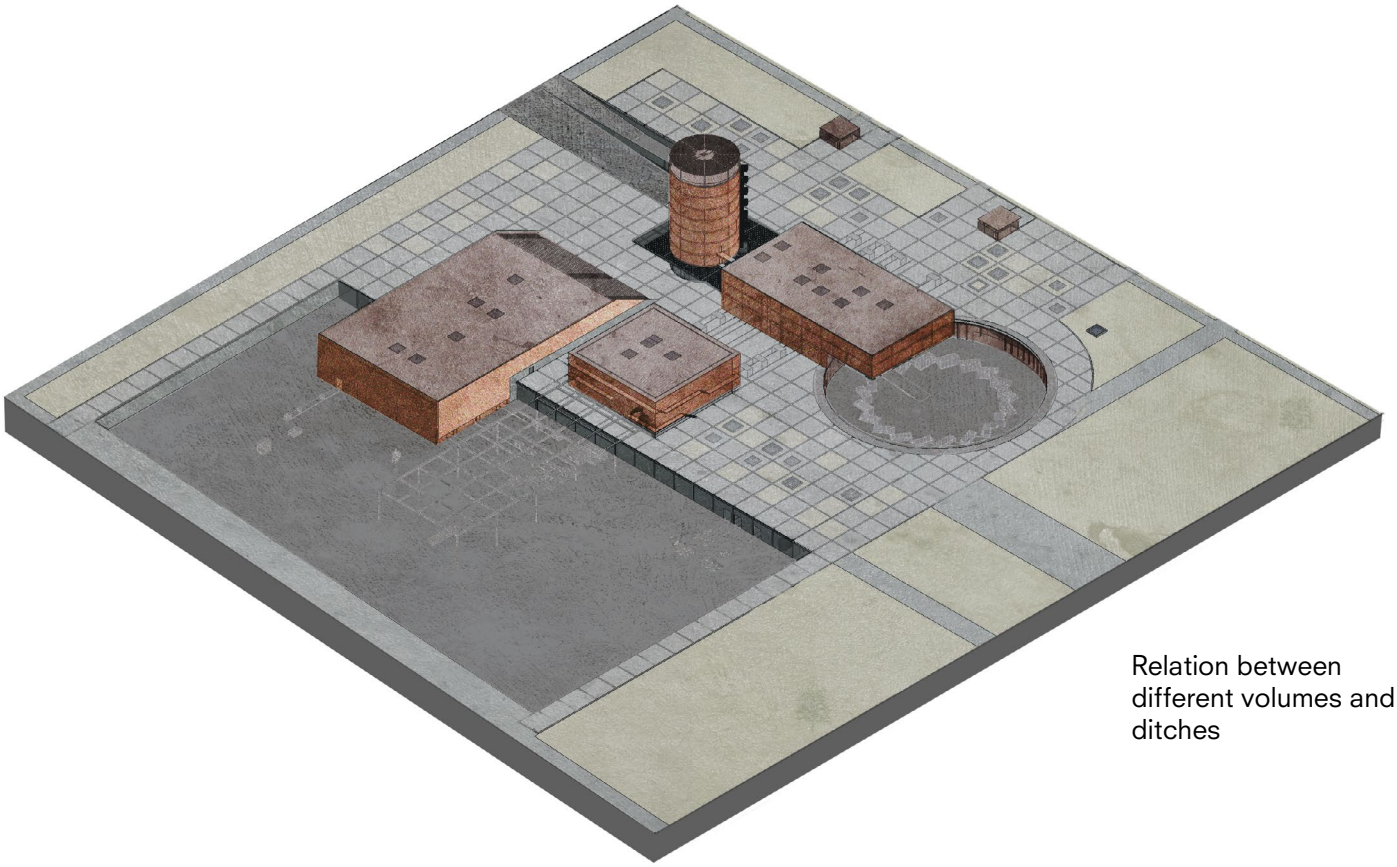
The relationship between the methodical line of approach of the graduation lab and the method chosen by the student in this framework

The location and border conditions were analysed in three different scales: USA – Mexico, Juarez – El Paso and Chamizal. The information about existing situation and current local issues was

collected and later addressed developing the project. The study trip and site visit was a crucial part of this analysis. Meetings with professors, students and representatives from local institutions were informative and developed understanding about social and economic context as well as local problems, similarities and differences between USA and Mexico. Later the research was focussed on a specific topic and addressed to waste management in binational context.

Chamizal was developed as an area providing the program that is missing in the binational context as well as encourages the colloboration of two neighbouring nations. Eah student is focussing on different building which later becomes a context for projects of other students in the group.

Different program implementations and situation on site were selected while testing and sketching on models and collages. Structure, materiality and climate were developed parallely in order to create well integrated design. This method helps to design an efficient building that is well informed with research.



Relation between different volumes and ditches

The relationship between the project and the wider social context

As mentioned before, waste management is a significant issue in US - Mexico border region. This project proposes a design that combines different types of waste management - sorting (recycling), Waste-to-Energy (WTE) and reuse - in one building. This program is unusual, however research proved that these different functions complement one another and reduce transportation, expenses and landfilling rate. The design consists of four buildings with different program (mentioned above) and three functionally related dithes. This creates a possibility for the public to see the technical process within the building while walking around in a safe environment. The scale of the center is similar to the one of a school and university and makes good connections

with education facilities and the park.

New position towards urban waste management in border region encourages united El Paso – Juarez strategy. All this leads towards improved environmental and health conditions and utopian zero waste concept. New clean and efficient technology encourages to rethink location and architect's role while designing an industrial building that can be simultaneously attractive and engaging to public. The site is designed to make the waste management process transparent and easily visible from the ground floor which is arranged in a principle that creates 'Waste Campus' atmosphere and can be regarded as continuation of neighbouring university and school campus.

Impression of the Waste Management Centre