

Design strategies For Garbage

Henri Achten

Faculty of Architecture
Cabinet of Architectural Modelling
Czech Technical University in Prague



Overview

- Analysis.
- Concept generation.



Journey of a piece of trash

- From start (consumption) to end (destruction or recycling).
- Diagram / comic / story.
- State of the object.



Waste points in the city

- Photo safari.
- Where can you find waste?
- What kind of waste is it?
- How much is located in that spot?
- Did it get there by accident / environment / on purpose?





Waste processing facilities

- Where are the official waste collection points?
- What are the waste collection routes of the city service?
- Where are the cumulative waste collection points?
 - What do they store?
 - How do they sort waste?
 - Do they process waste?
 - How long is waste stored?





Waste processing facilities

- Where are the official waste collection points?
- What are the waste collection routes of the city service?
- Where are the cumulative waste collection points?
- What kind of waste processing types are used?
 - Incinerating.
 - Recycling.
 - Transformation.
 - Dumping.

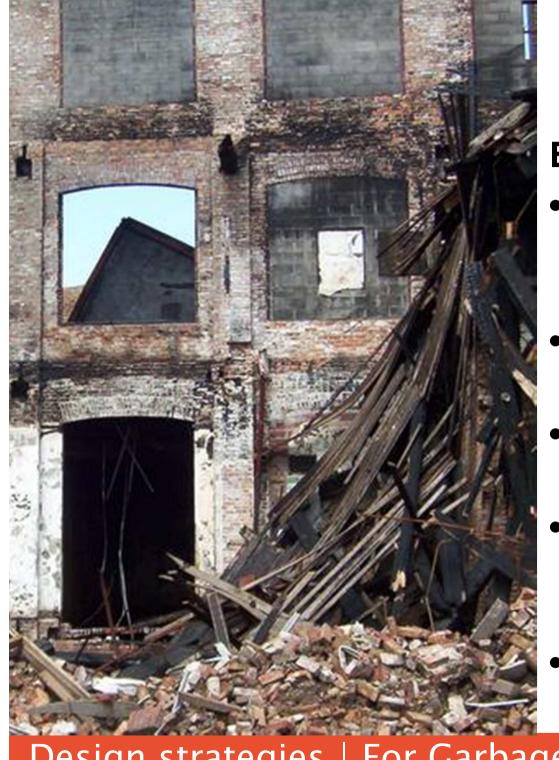




Collect all waste of one day produced by yourself

- What is waste and what is not waste?
- How much waste do you produce in one day?
- Where do you produce waste?
- Where do you dispose of waste?
- What kind of waste do you produce?





Exceptional waste production

- What causes are there for exception low or high waste production?
- How are these causes dealt with currently?
- How often do these causes appear?
- How do these causes relate proportionally to everyday waste production in the city?
- How do these causes influence quality in the city?



Current waste collection methods

Containers.

Waste bins.

Dump sites.

Waste collection sites.

Mechanised (sewage, drainage).

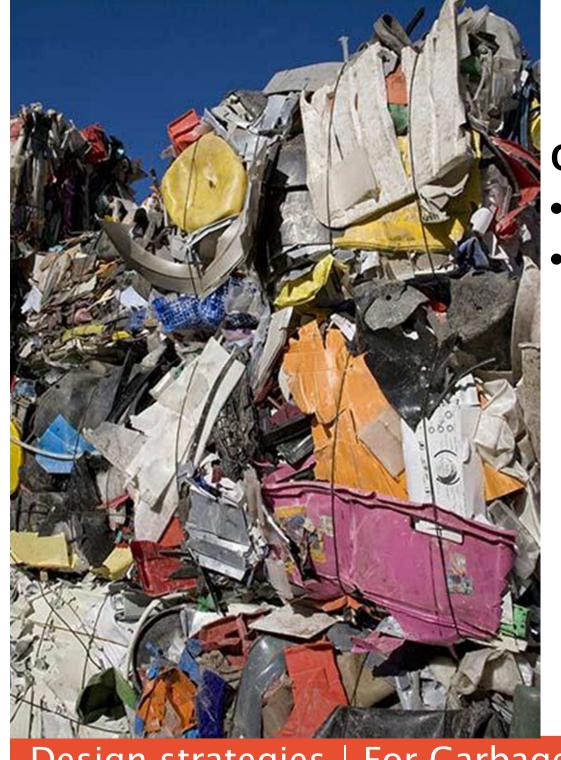
Manual labour (street swipers).

Mechanised labour (street/pavement cleaning machines).



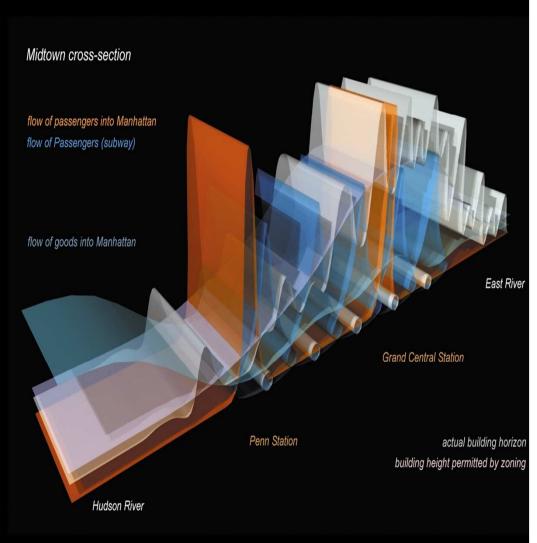
Possible waste processing

- What kind of waste processing ways exist worldwide?
- Which kinds are used in Prague and Zurich?
- Is it possible to think of other ways of waste-processing?



Categorisation of waste

- What kinds of waste exists?
- Determine characteristics: (non)hazardous, (non)toxic, weight, volume, density, reusable, ...



Visualise dynamics of waste

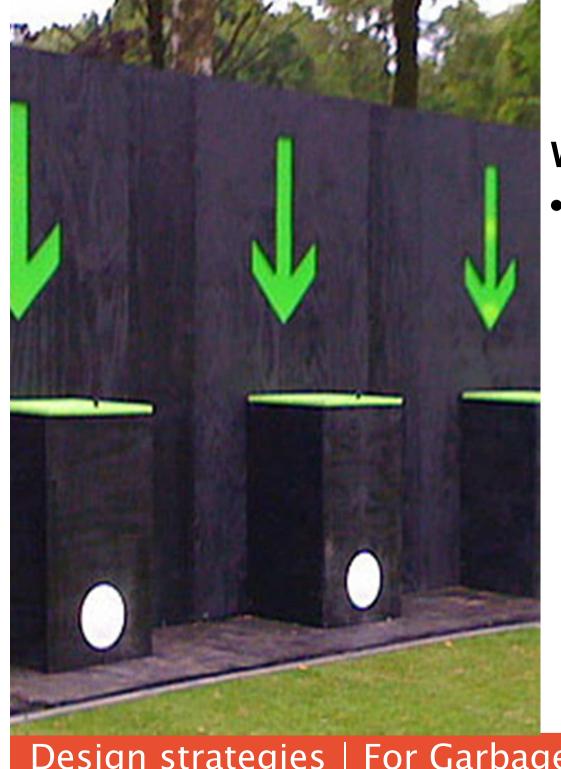
- Visualise dynamics of waste.
- 24-hour/week/month/year state diagrams/animations of waste disposal/collection/ processing.





Overall waste strategy

- What is your overall design approach for solving the waste problem?
- In which context?
- What else is needed for your design to work?



Waste cycle focus area

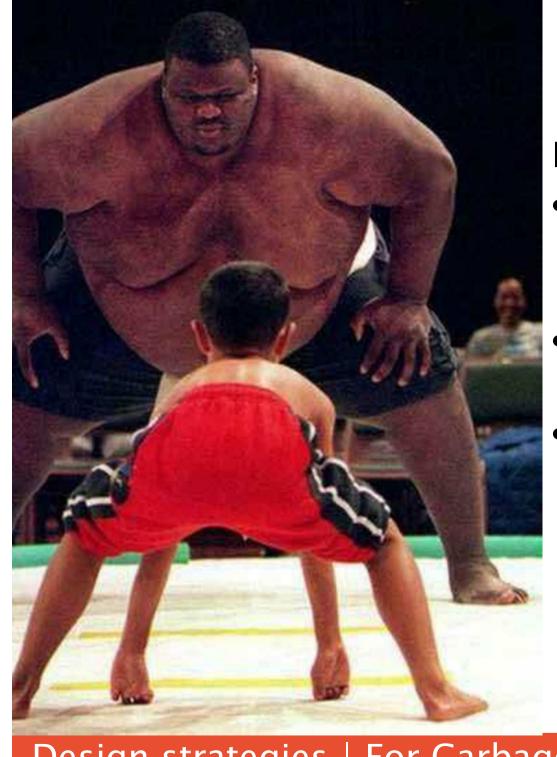
Choose within the waste cycle one or multiple moments that your design will solve.



Determine target group

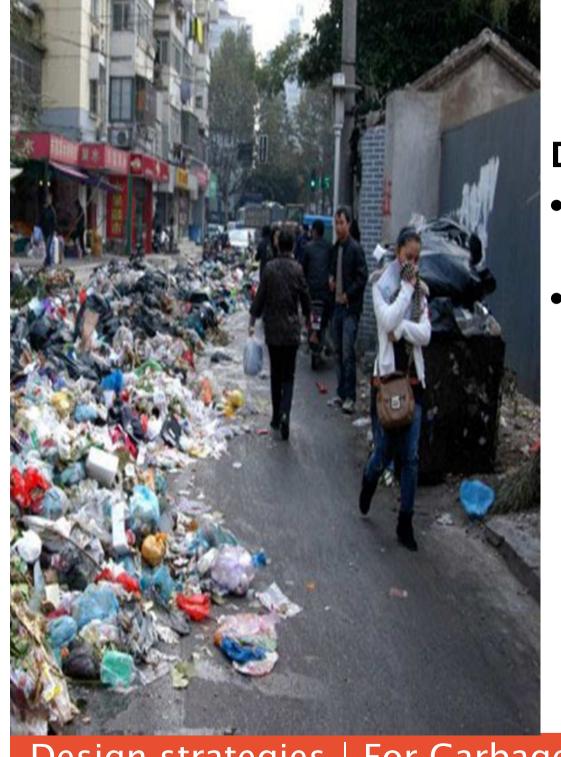
- For whom is the design meant: seniors, youths, children, adults, singles, couples, families, groups, professional areas?
- Where are the target groups: regularly distributed or specifically located?
- When are the target groups producing waste?





Determine capacity

- How much waste does the target group in the waste cycle produce?
- How much waste needs to be collected?
- How much waste needs to be processed?



Determine threats

- What factors prevent proper waste disposal behaviour?
- What characteristics of the target prevent proper waste disposal behaviour?



Determine strengths

- What characteristics of the target group can be used to strengthen proper waste disposal behaviour?
- What characteristics of the target group are naturally inclined to proper waste disposal behaviour?



Formulate keywords and a slogan

- Characterise the aims of your design in a few keywords.
- Capture the main spirit of your design in a catching slogan that may be used for example in an awareness raising campaign.





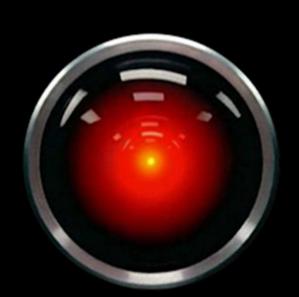
Write a scenario

 How will the target group use the design?



Waste as a design component

- Is it possible to use waste as a material/component in the design?
- To which extent do you need new materials/components in the design?

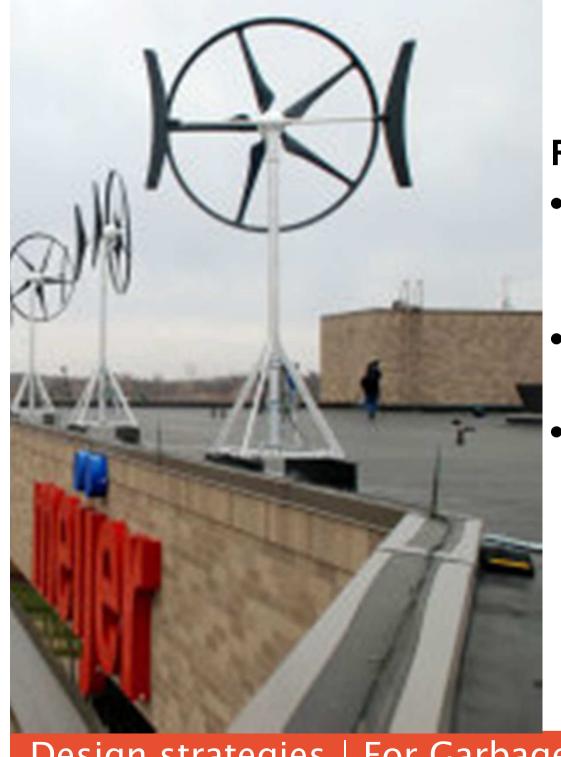


Dave... I'm afraid I can't let you do that...

Behavioural design

- How should the design interact with environment?
- How should the design interact with target group?
- Can the design change appearance/shape/size/ material/components?
- Can the design change its behaviour?
- Has the design a static object/friend/advisor or other kind of personality?





Resource design

- What resources does the design need in realisation/ location/operation?
- Does the design produce/ transform/return resources?
- To which degree can the design be self-sufficient on resources?