

ABSTRACT

This research report tells a story of how people respond to waste, the implications and the seriousness of this and how architecture and space could play a role in a solution. These inter-woven relationships are explored with reference to the global problem, and a specific focus on South Africa's (mostly Johannesburg's) battle with this plight. As such, this report addresses the essential aspects of the issue at both a national as well as an international scale.

The City of Johannesburg's waste management system is flawed. Landfill sites are quickly encroaching on to the living spaces of the less fortunate as these mounds continue to grow. The system is broken from the wasteful consumer, to the disregarded recycler, to the littered mounds growing extremely fast, but how do we fix it? It seems the solution is in the process, Johannesburg is home to a prominent yet disregarded figure who scours the streets in search for the very items we so easily throw away, but where do they take it? To the very landfills engulfing their living space. Most of our landfills are situated next to townships as part of The Group Areas Act, a crucial pillar of the segregation agenda during apartheid. Waste would be 'imported' from privileged white areas to impoverished, working-class black areas. Essentially that is what is happening now as poor waste management has resorted in the informal recyclers having to litter their homes to earn a wage.

With the end goal being zero waste to landfill, an intervention housing campaign strategies involving propaganda to try educate the public on reuse and recycling is not enough. As how does this directly deal with the landfill problem. I think the solution is in the process of how waste is recycled and Johannesburg's waste management system, therefore I intend to redesign the Johannesburg recycling depot.

Through architecture, this research report introduces a redesign of these 'middle men' type depots, into a multifaceted recycling station which will include a weigh station, sorting station and baling and buy back centre. A municipal solid waste to energy incineration plant will

also be added, now pressure will be taken off the landfills and hopefully the landfills themselves could be sorted and reprocessed back into the depot. This will provide a more organised and material specific station where industry can buy back their recyclable goods. The more organic waste that is left over is then incinerated in the plant and that energy will be placed into the electrical grid.

It is also important to me to find a site that would be easily accessible to the Informal Recyclers, close to their routes and not on a landfill as once the landfills have been reprocessed there is an opportunity for land reform. The architectural intervention should also have a social layer linking the informal recycler to the recycling depot, acting as a base camp of sorts for these nomadic people.