

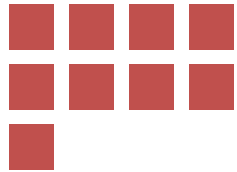
krystal persaud

february 5, 2009

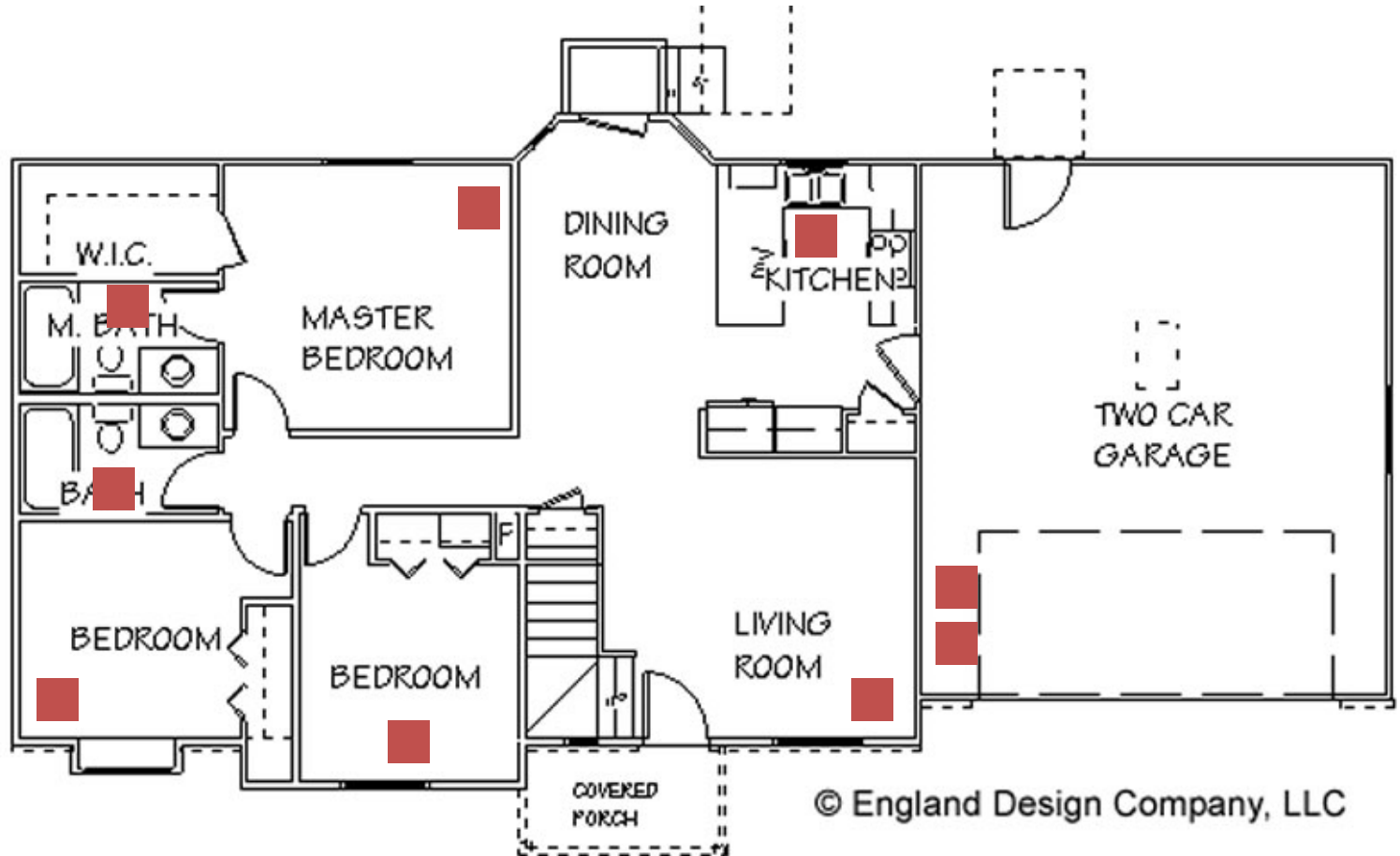
id project II



# introduction



^ dump this much trash at the curb?



# the problem

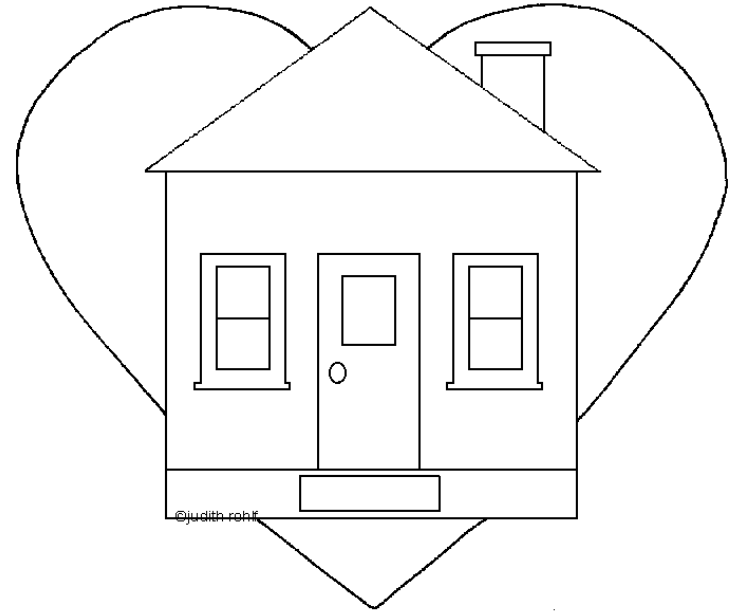
People do not realize how their actions affect the environment around them, **because the consequences are not immediately visible.**

My logic: “Home is where the heart is”

Affect people where they are most comfortable...  
**and make them step out of their comfort zone**

Start at the home and alter lifestyles and perspectives.

Aid people in making their lifestyle at home more sustainable by making them realize how much usable output their home produces.



# target market



**Anyone who has a home: families, children, couples, elderly people, or people living alone.** However, targeting knowledge at different groups will require different methods. For example, older people may be set in their traditional (but non-sustainable ways) and it is going to take active convincing to change that. Children and younger audiences can be targeted to begin living a sustainable lifestyle at an early age.

# inspirations

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**Containment problem:** People move their garbage bags to garbage cans, which are then picked up by garbage trucks. At this point the average consumer considers the garbage to have permanently disappeared. Garbage remains on earth or remains in your area even after it's no longer physically in your house. However, it is always contained. So although we think it is out of our lives, it is still hiding on the outskirts of towns and cities.

# inspirations



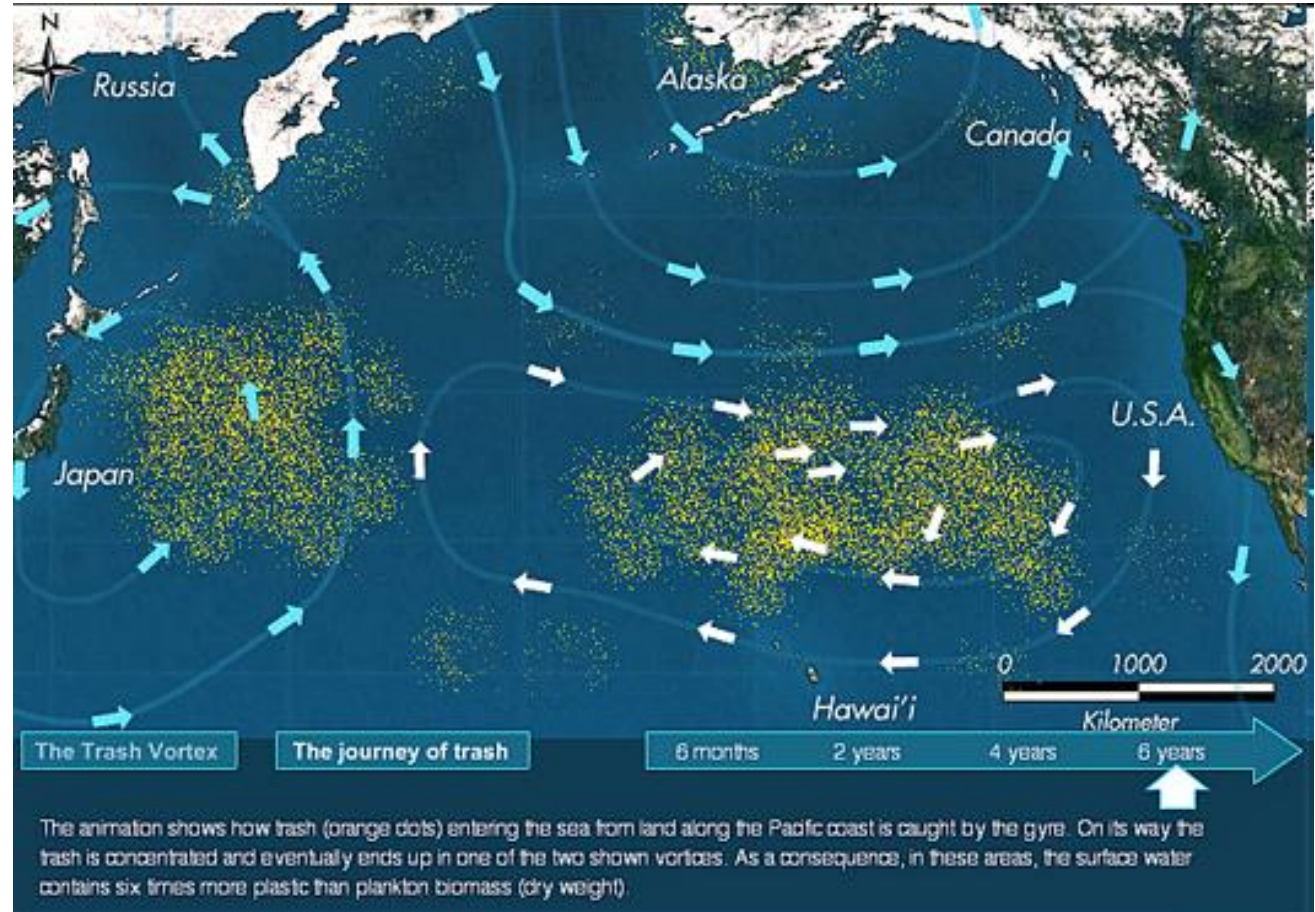
# inspirations

## Great Pacific Garbage Patch

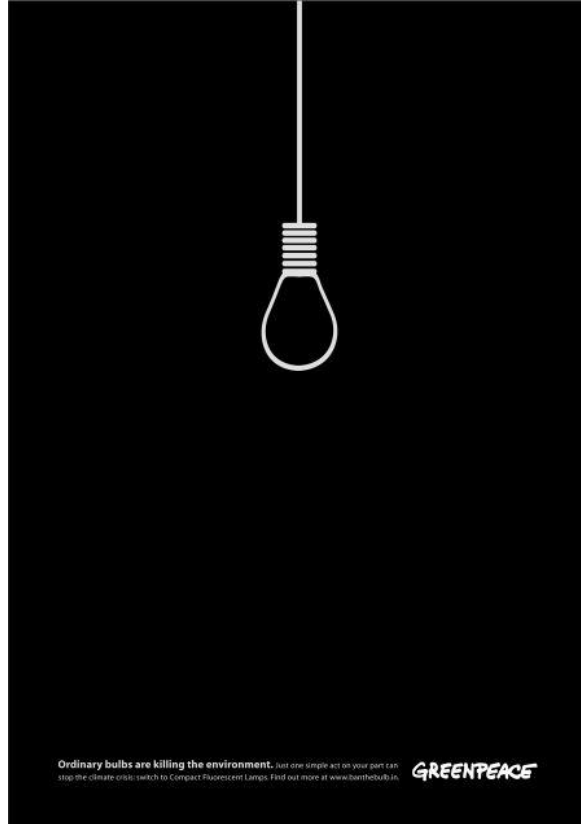
Suspended plastic and other debris that have been trapped by the ocean currents

In a 2001 study, researchers found that in certain areas of the patch, concentrations of plastic reached one million pieces per square mile

Estimated 80% from landfills and 20% from ships



# inspirations



# precedents



# precedents



Not the most sophisticated, but sustainable none the less. Sorting organic compost for your garden minimizes the amount of trash you produce. Feeding your pet left over meals also does this. Of course, separating recyclable materials in bins. Creating a sustainable home does not mean every room needs to be full of high-tech energy converters. Let's go back to the basics...



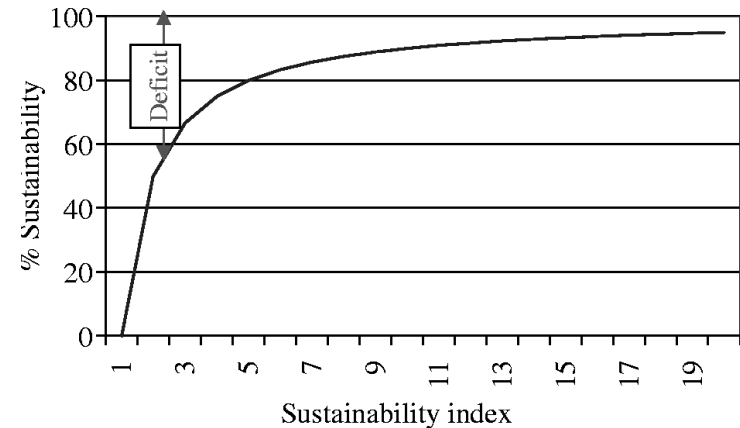
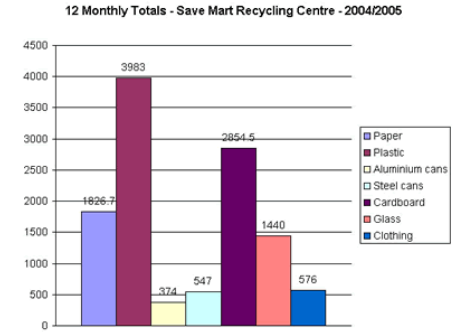
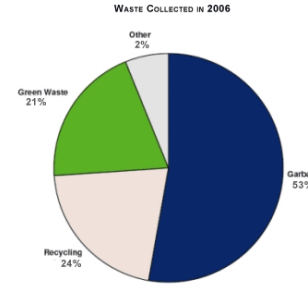
# methodology

I could google statistics for how many people don't recycle and still use high-wattage light bulbs in their households and spit out a bunch of digits >>

What do these digits really say? Maybe people rushed through some survey about sustainability and these are the results. Do we understand their behavior now? Not really. So does this help my design process? Not really...

Experiential or clinical design research? Which is better?

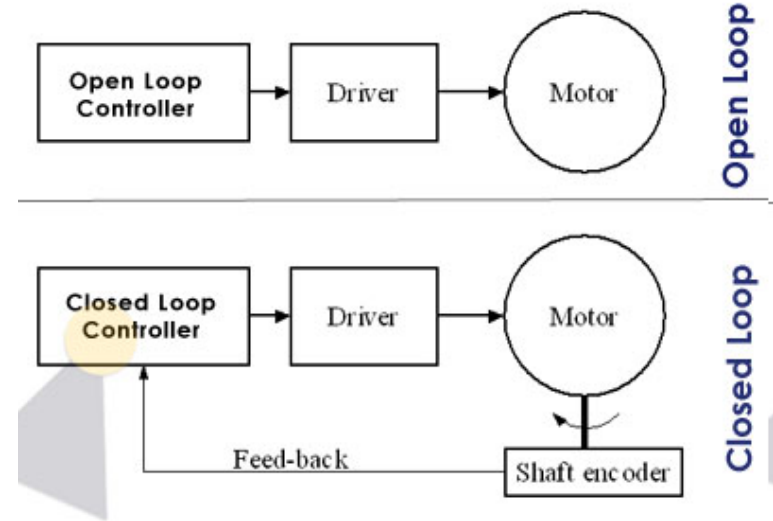
I feel that more inspired products come from an experiential design process.



# “closed loop” logic

“In a closed ecological system, any waste products produced by one species must be used by at least one other species”

“Outflows are sometimes shorter than inputs. Normally they are deposited in nature within the region where they have been used... “We can’t afford to send them any farther, since they aren’t resources to people any more!” Thus they do not return to where they came from, they are linear instead of closed loops. In the long run this can lead to a lack of certain substances in some places and too much in others. Often one result is the accumulation of waste around cities.”



# laws of thermodynamics

The most BASIC representation of sustainability

First Law: (conservation of energy) energy cannot be created or destroyed, only converted from one form to another. **(exchange between man and earth)**

Second Law: from a thermodynamics perspective, all natural processes are irreversible. **(similar to many manufacturing processes)** If a thermodynamic system of interacting molecules are brought from one state to a different state, the structure of the molecules are now changed. **(think about materials being combined and manipulated to create a new substance- they are harder to recycle)**

If thermodynamic work is to be done at a fixed rate, free energy must be expended **(still interpreting...)**



# “closed loop” experiment

## **Rule 1: Waste = food**

Everything brought into my apartment stays in my apartment except things that biodegrade and can directly return to the earth (ex- food, compost)

(This will force me to separate my waste so that the organic waste can supplement the earth.)

## **Rule 2: Take in the trash**

Never take out the trash.

(Keeping garbage out of landfills... and in my room.)

## **Rule 3: Recycle**

Things that can be recycled locally like paper, plastics, and aluminum can be taken out of the apartment once a month.

(Encourage me to buy recyclables, but still see the materials accumulating.)

## **Rule 4: Repurpose**

Only recycle things that cannot be used again!  
Always try to re-use anything before throwing it in the trash or recycling bin.

(Add sentiment/value to a normally disposable item)

# experiment results so far

Organic compost smells **A LOT**. I need to change the location of it somehow...there is no compost area in Klostergården...

Is there anyway to reduce trash produced in the bathroom? Didn't think so...

I use SO many disposable cups! Are they recyclable? I think they are lined with wax, what should I do with them..

What do you do with spoiled meat? I put it in the freezer so it didn't smell too... maybe I shouldn't buy more than I can consume...



# experiment results so far

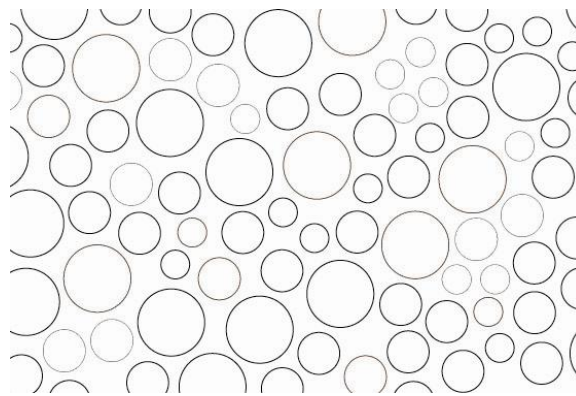
I found some interesting ways to re-purpose materials.

As a poor exchange student...I did not want to invest in decorations for my room, but I can't live with such white, barren walls either.

Why not use leftover products and packaging to create some interest?



# experiment results so far



# upcoming

In the end, I am not requiring consumers conduct their own “closed loop experiment”.

There will be an end product that aids consumers in making their lifestyle at home more sustainable (ideally by having them realize how much usable output their home produces)

Blog updated daily called “The Closed Loop Experiment” at [www.krystalpersaud.wordpress.com](http://www.krystalpersaud.wordpress.com)

Have any suggestions for new “rules”?

