

# Context, scenarios and prototyping

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Some tools that might be useful when creating ‘hybrid world applications’.

This is experience pulled from our work with tangible interactions, touch and physcomp work at the Oslo School of Architecture & Design.

Context.

Scenarios.

Rapid, low-fi and junk prototyping



Choosing a context.

As small as possible to begin, work upwards and outwards.

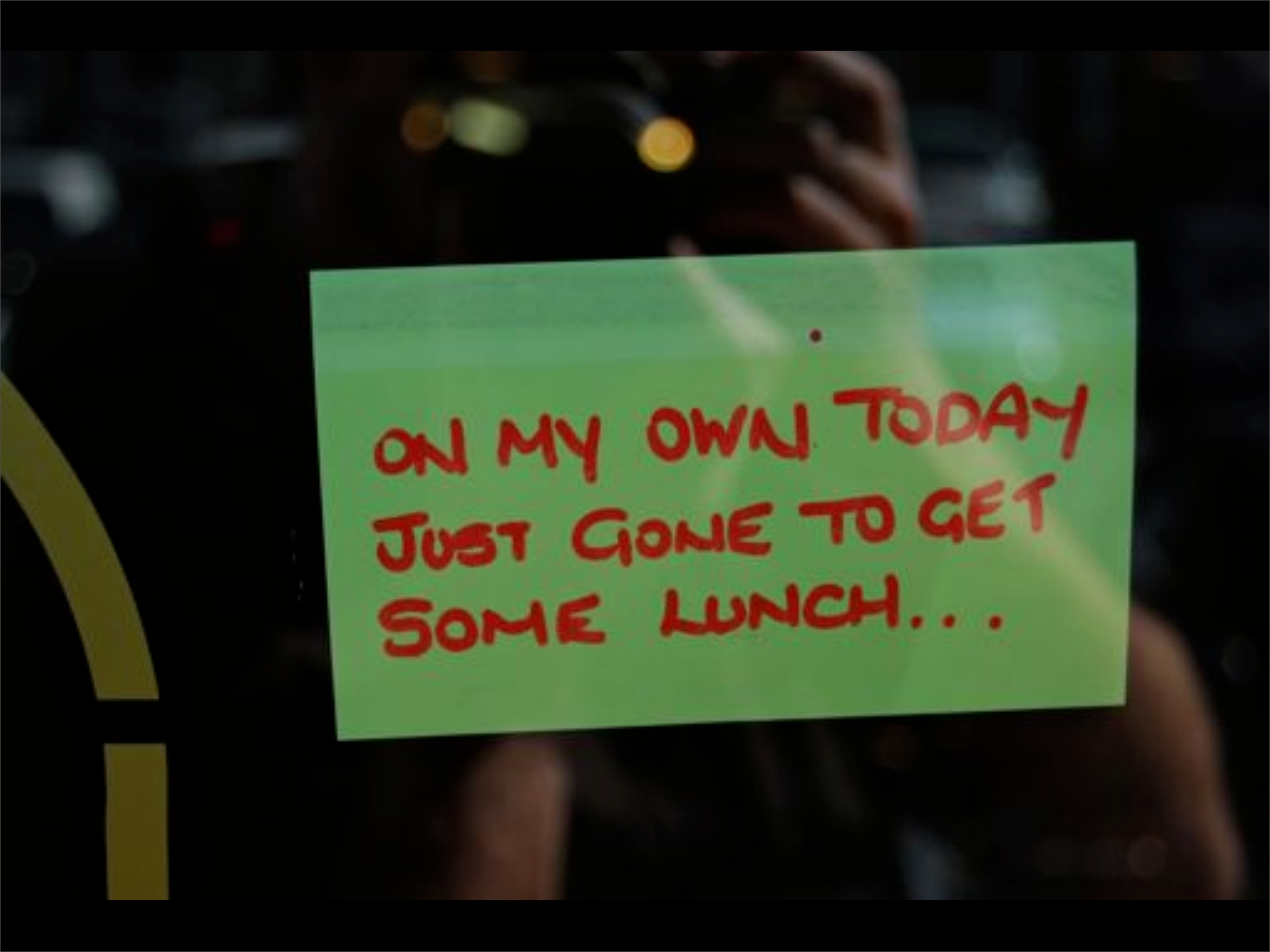
Here there is observation, interpretation. Ethnographic method.





People

Don't design for yourself.

A hand is holding a bright green sticky note against a dark, blurred background. The note has three lines of text written in red marker. The text reads: "ON MY OWN TODAY", "JUST GONE TO GET", and "SOME LUNCH...".

ON MY OWN TODAY  
JUST GONE TO GET  
SOME LUNCH...

In situations

Situations and context are hard to design for. The more you observe and interpret real situations the better.

Technologies will be adopted in different ways to you design.





And behaviours

Observe people's detailed behaviour.





Scale: important for both scenarios and context.

Choosing and switching between scales, altering scales.

Design as exploration: too many people see it as a linear process. It should be multi-linear, stranded, exploring the extremes.

Scale also frees you from the constraints of critical mass, infrastructure or network effects. Small networks can work in smaller spaces.

See examples of situated software: [http://www.shirky.com/writings/situated\\_software.html](http://www.shirky.com/writings/situated_software.html)



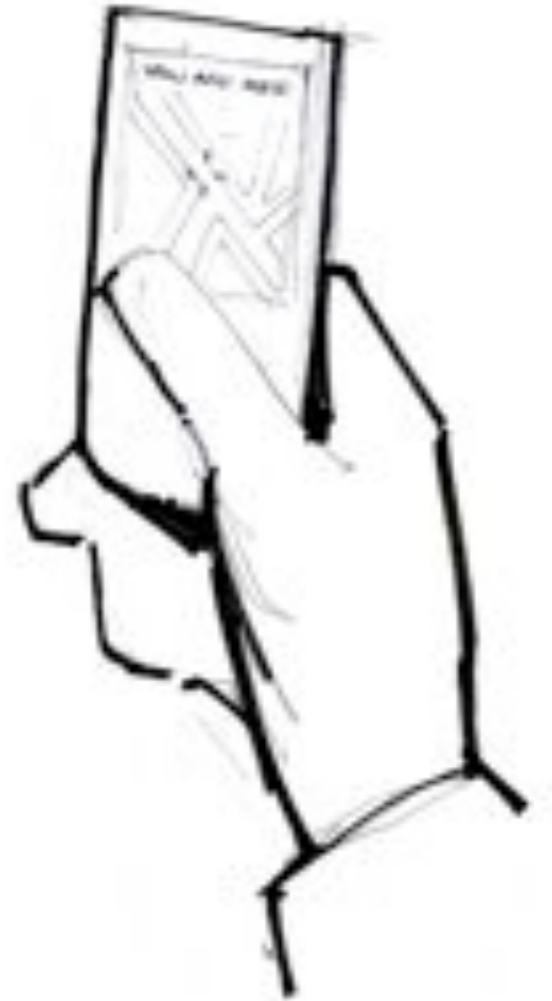


Scale also relates to people: is it for 1 or 100 people?

This really changes the nature of systems.

This is important for both context and Scenarios or Storyboarding.





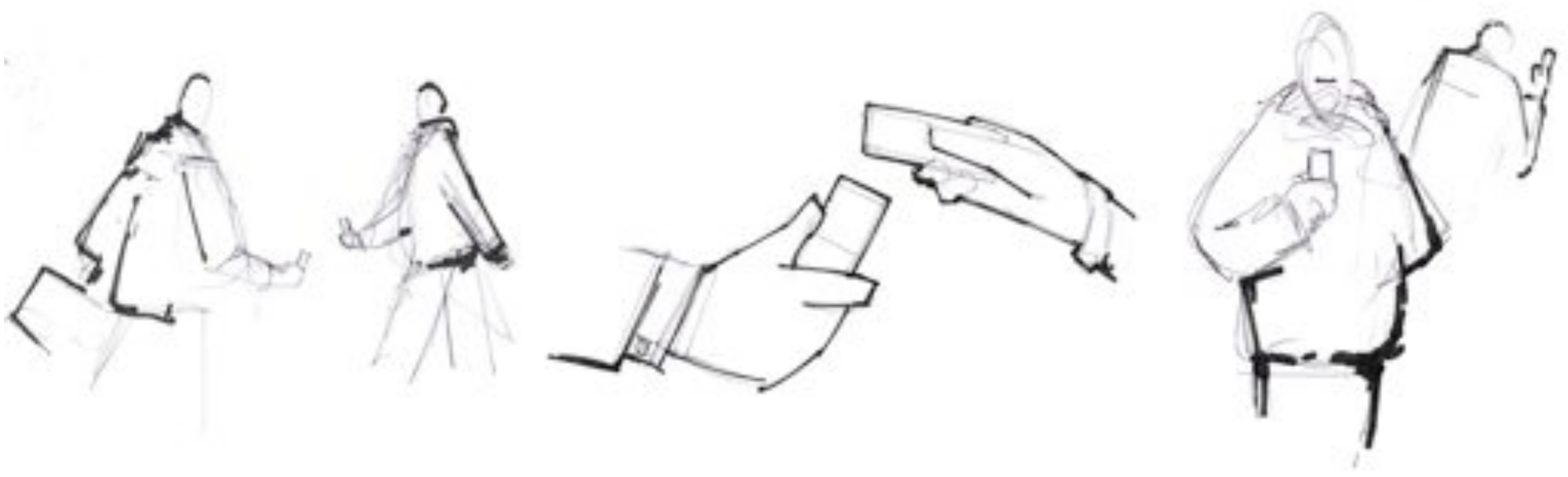
Sometimes a series of three sketches work really well.

Some situation is set up, an action happens and a result is achieved.

In the Touch project we use very simple scenario sketches to look at concepts.

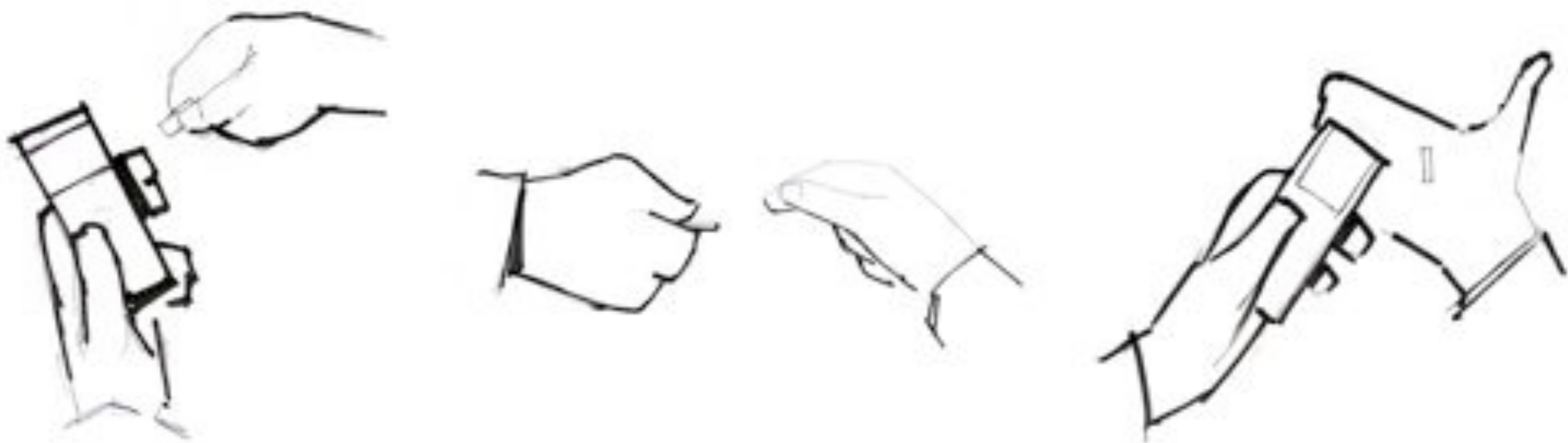
Drawings by Lars Haaland.





Drawings by Lars Haaland.







walk  
find the soda machine

see machine

check pockets for change

fish out sixty cents

remove pocket fuzz

slide coin in slot

slide second coin in slot

slide last coin in slot

look at buttons on soda machine

select Dr. Pepper

press  
Dr.Pepper  
button

hear clunk  
and clink

machine

selects soda hits the  
bottom of machine  
Dr.Pepper

hear soda drop  
down machine

reach for Dr. Pepper

remove soda

move can so it will fit out of slot

open soda and enjoy

Uncovers failure, problems

Interaction design of a soda machine, from Illinois Institute of Design:  
<http://loop1.aiga.org/>



Insert bill

Coins inserted US dollar bill received through and turntable of either hand, with face up

Greedy insert about end of bill into receptacle

Receptacle will begin to pull bill in

Release bill

Locate Dr. Pepper button on machine selection panel

Press Dr. Pepper button and hold briefly

Roll for bill to reach coin machine

Locate product dispensing chamber

Take Dr. Pepper out of chamber

Locate coin return

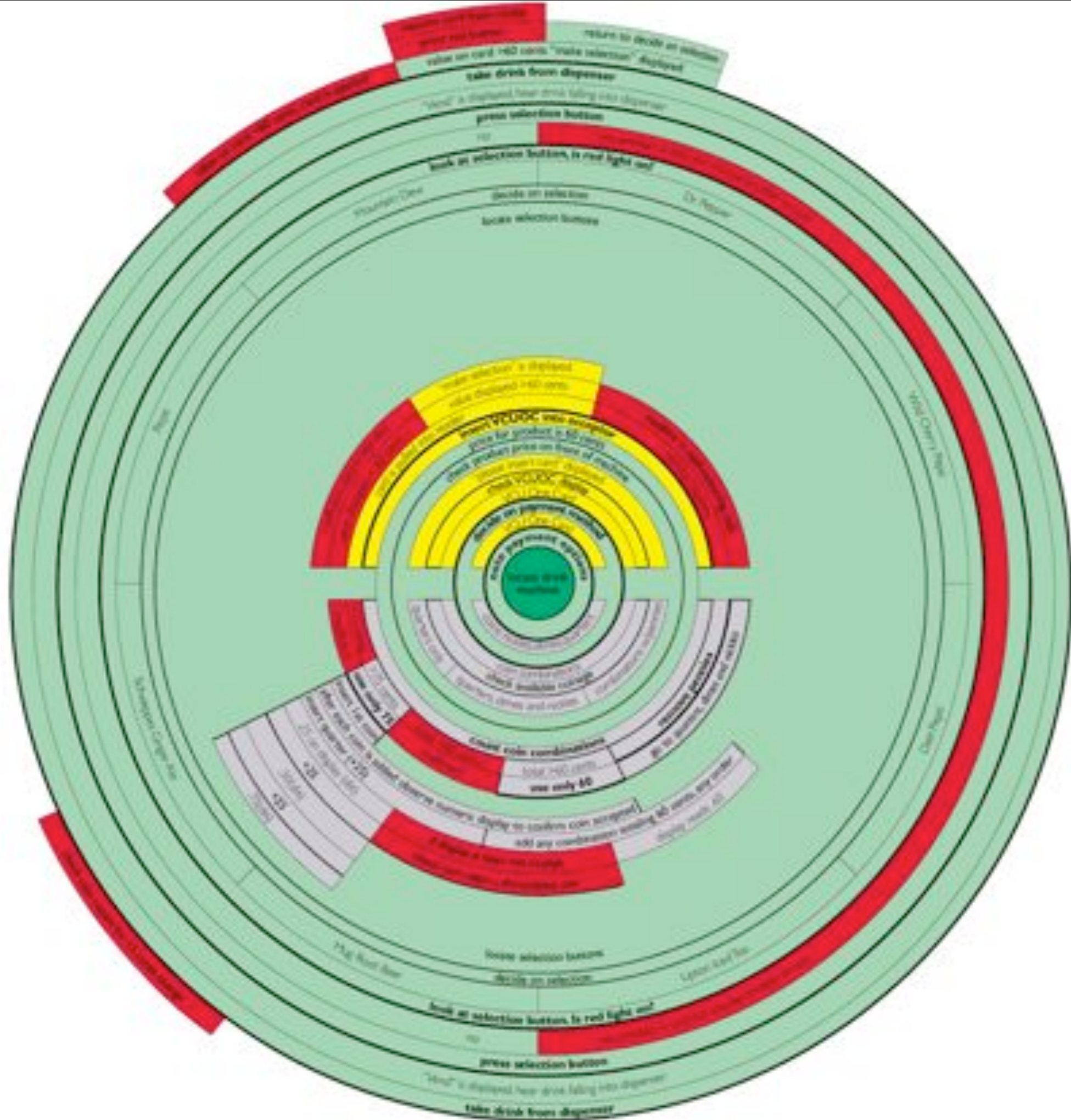
Use change from coin return

Locate coin return machine

Dr. Pepper will fall into chamber

Change will fall into change return

## Getting a Dr. Pepper





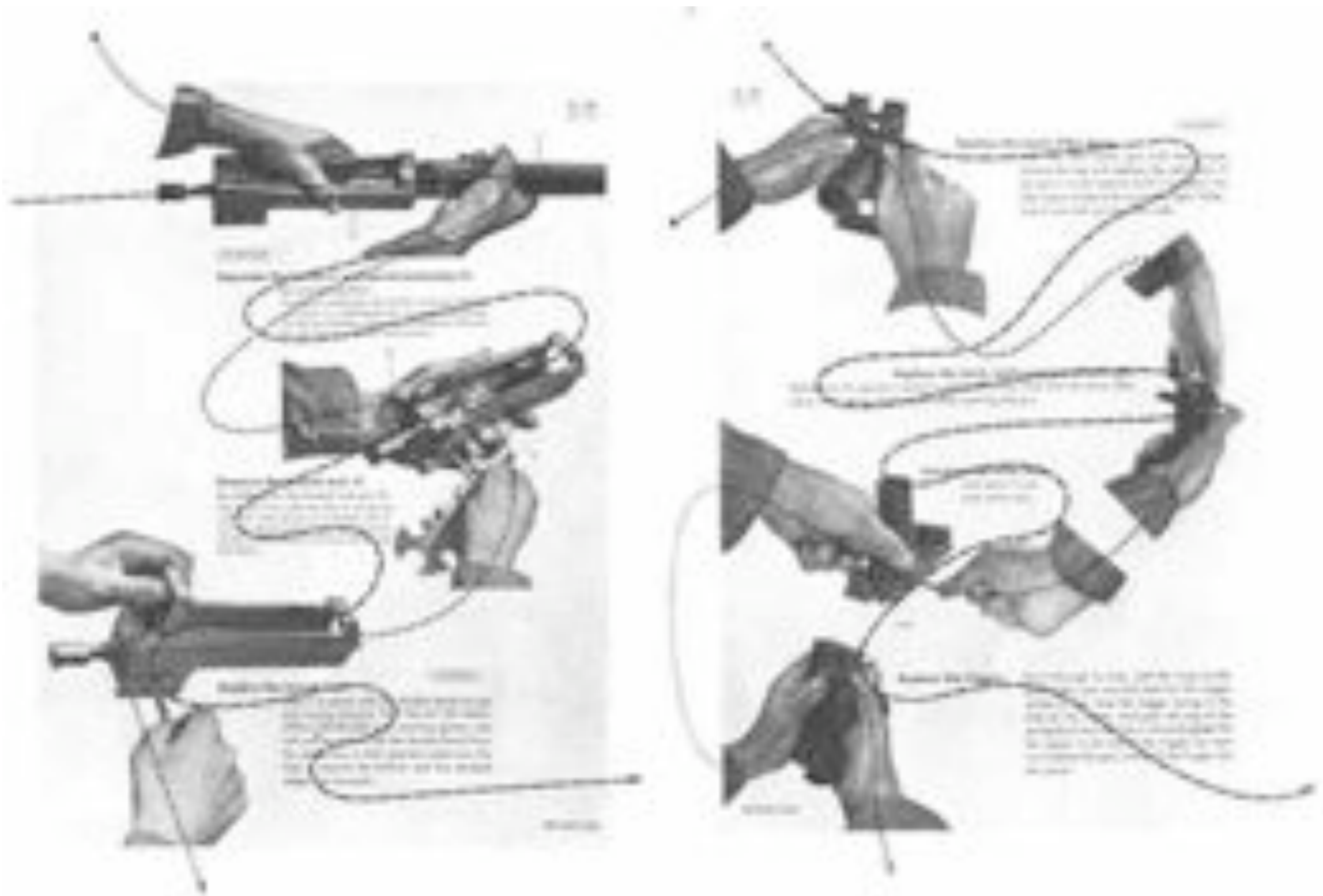


A spread from *Desolation Jones* by Warren Ellis and J.H. Williams III.

Thanks to Schulze & Webb for the link:

<http://schulzeandwebb.com/blog/2006/11/29/burtin-vs-elliswilliams/>

Scenarios to show the non-obvious



Will Burtin

Designing for the U.S. Army.  
A manual illustrating how to disassemble a rifle.

<http://schulzeandwebb.com/blog/2006/11/29/burtin-vs-elliswilliams/>





Prototype early.

Thinking too much can be more damaging than building too much.

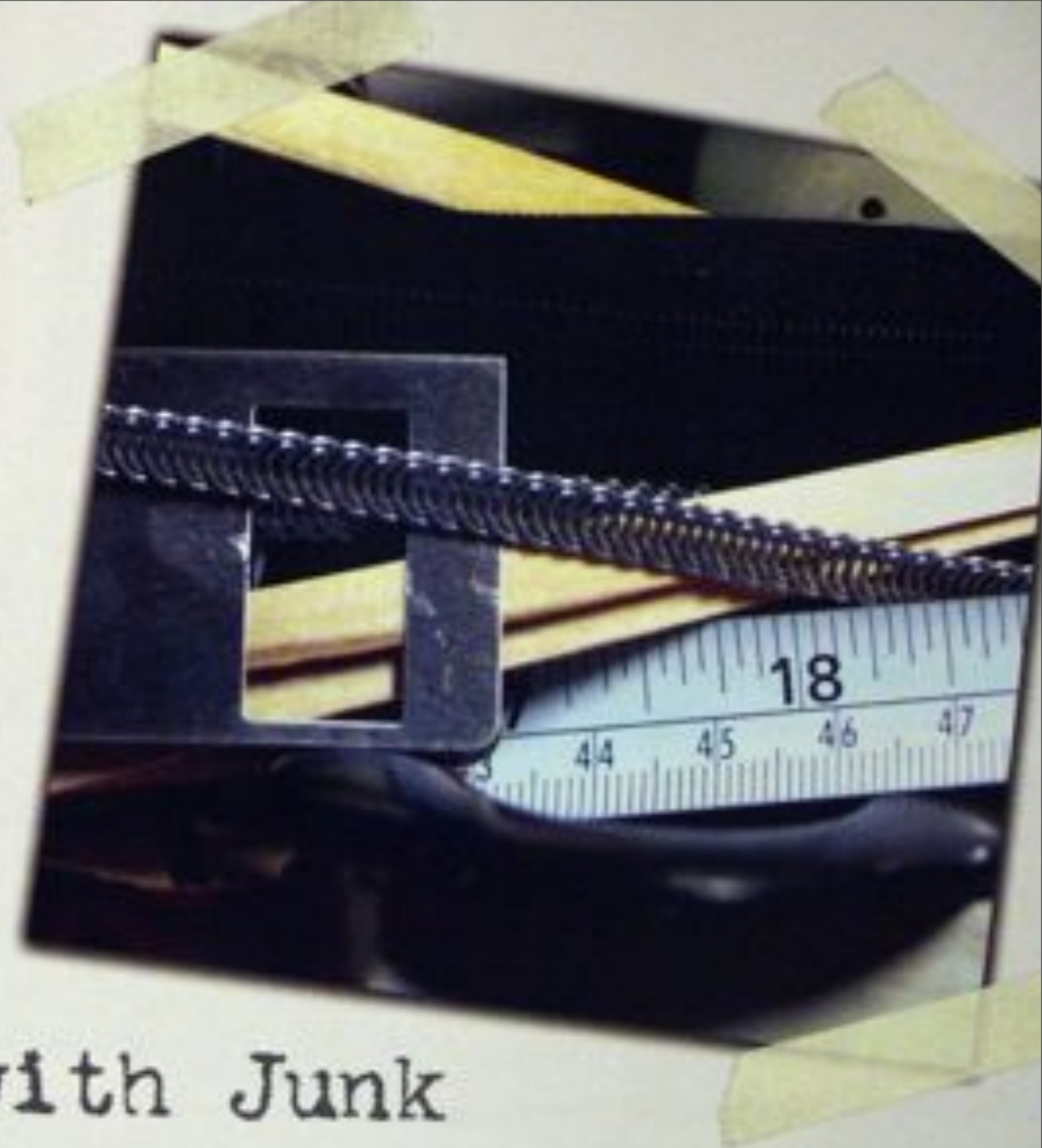


Making things frees you from the constraints of concepts.





Low-fi and middle-fi prototypes.



# Prototyping with Junk

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tions at very wide  
does the arrangement work well to an  
computer aesthetic for the display, it also  
helps de-emphasize the Drift Table  
[not distracting like a

Figure 6: A small sample  
of the models and mockups  
used to develop the design.



...these features are located near the  
power cord in order to suggest that they are  
part of a service panel and subordinate to  
the table's central functionality.

### Engineering:

#### How Is a Drift Table Built?

The simple appearance of the Drift Table  
belies the complexity of its internal life  
that 120-gigabyte hard drive

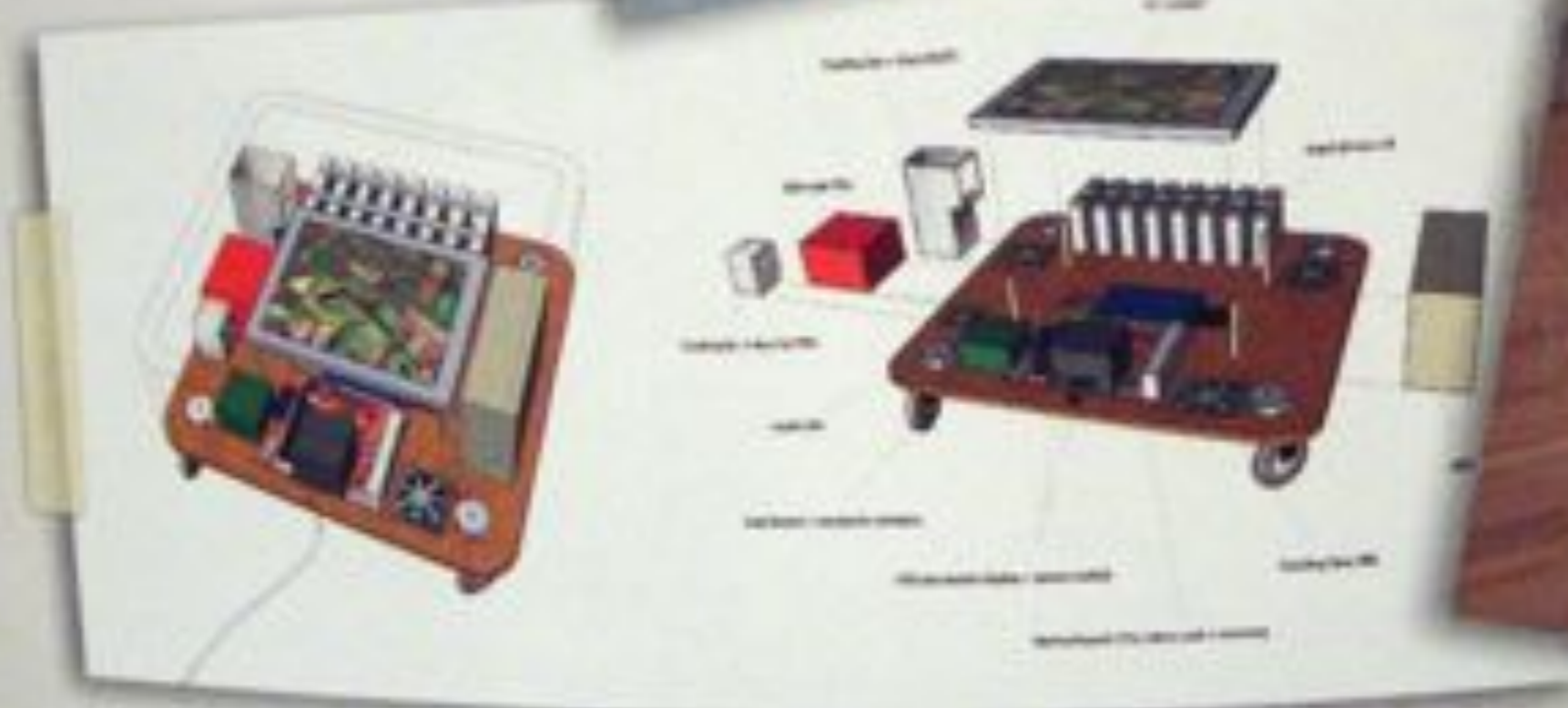


Figure 7: A CAD model of the technologies and  
layout used in the Drift Table.



Figure 8: The internal  
of the Drift Table.

Taking inspiration from already existing objects.  
A way of introducing lots of cultural and social elements into your design.

“no ideas but in things”: <http://www.noideasbutinthings.com/ixd/>



Everyday objects as interfaces.

From "Experience Prototyping" by Marion Buchenau, Jane Fulton Suri





Figure 2: *Experiencing a train journey.* The team combined objective passenger research with subjective discovery as they played out roles they assigned each other.



Figure 6: *Digital camera interaction architecture prototype.* The prototype used a desk-top computer's processing power to manipulate the dynamic qualities of the control system and screen behavior.





Figure 5: *Picture-communicating prototype*. Despite heavy backpacks containing batteries and drivers for the prototypes, the children were happy to integrate picture-sending and receiving into their daily activity.



Figure 4: *Bodystorming layouts for an airplane interior.* Ideas were generated and evaluated rapidly by the team as they directly experienced physical and social issues in this full-scale environment.





Reflection and letting go.

We need more 'lightness' in interaction design.  
Less attachment to ideas and ability to change and throw away.