

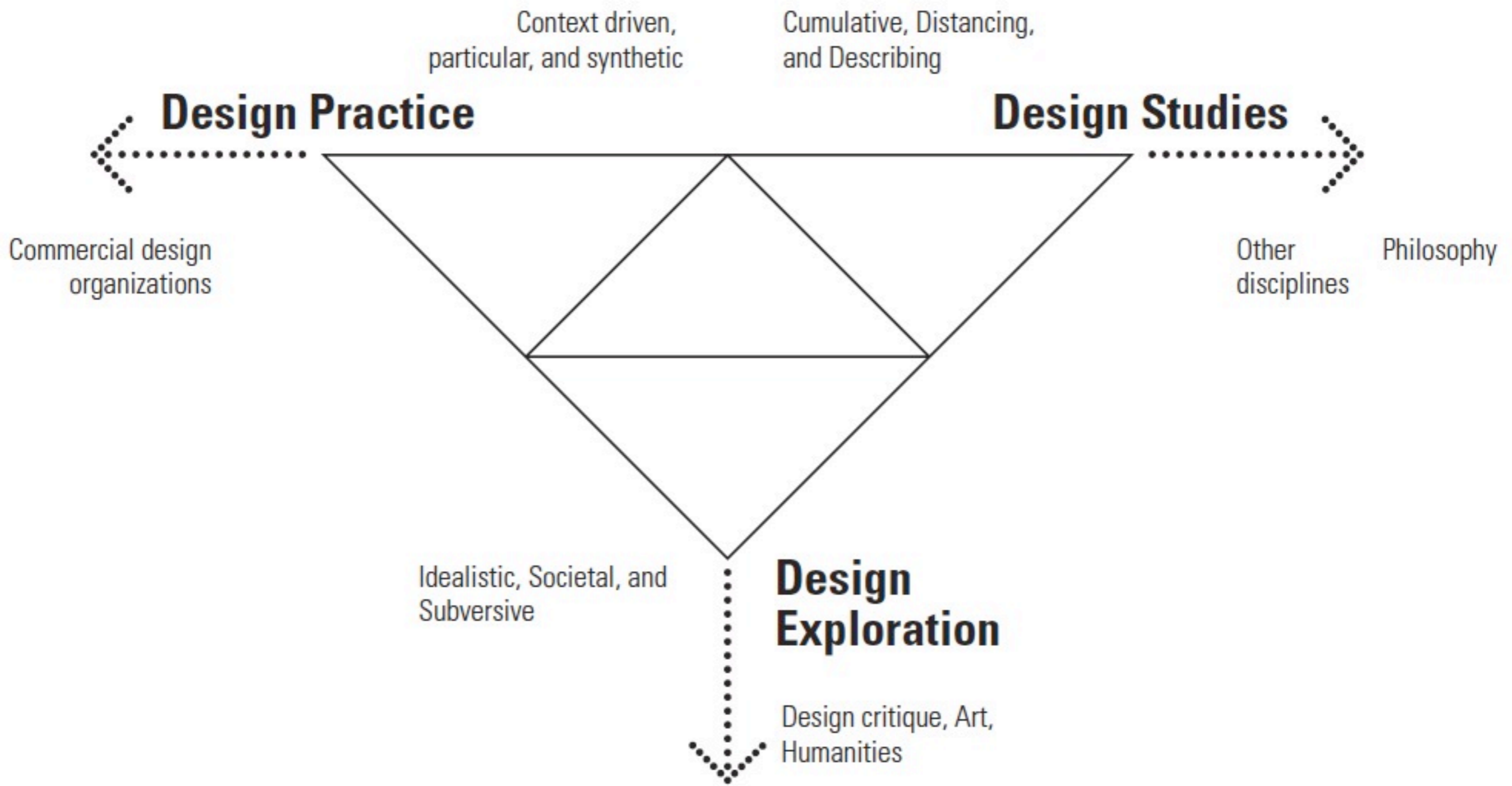
# IxD Degree Project example

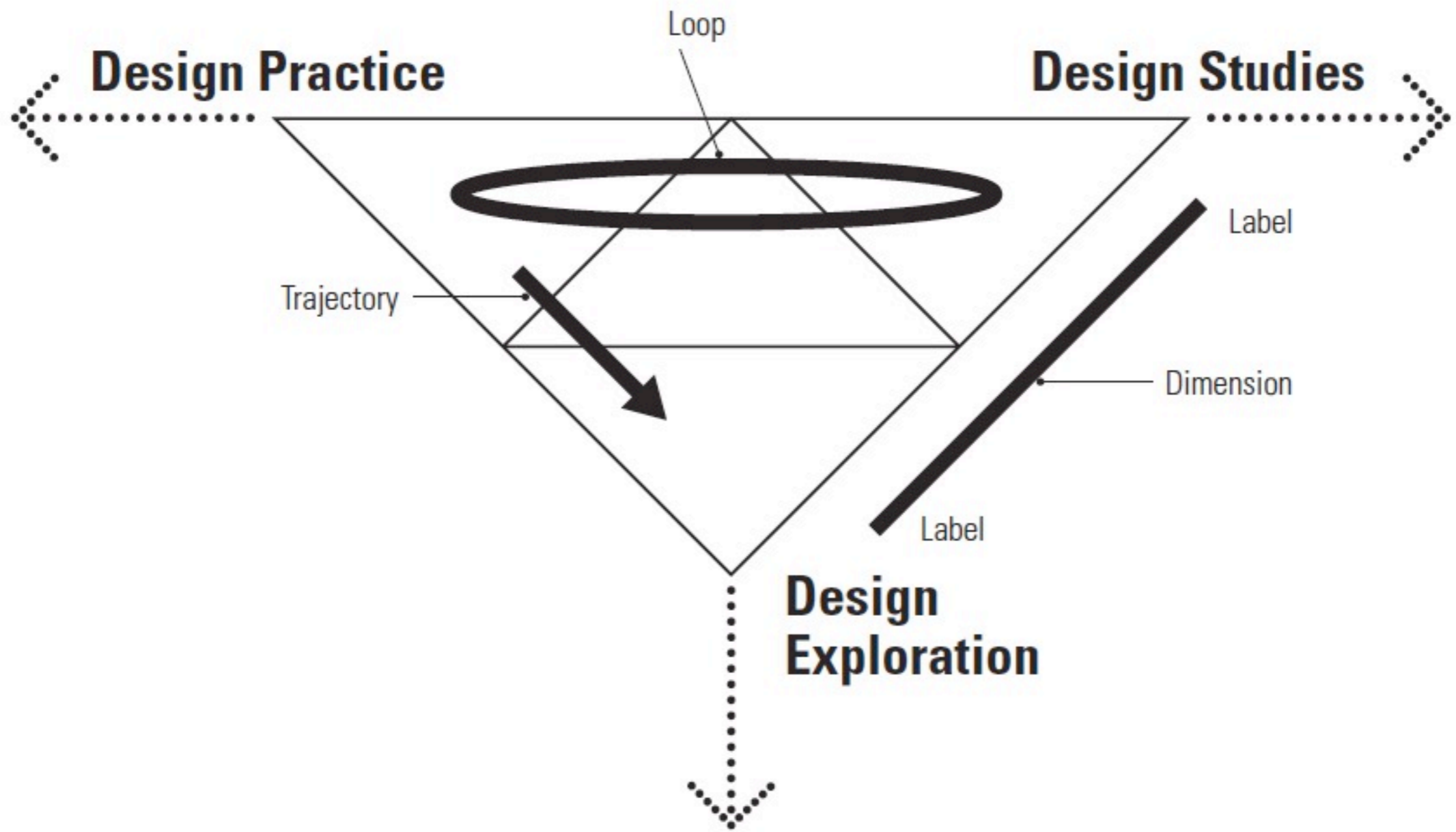
Benjamin Lopez, graduation Spring 2011, Umeå Institute of Design

**PDF**

The Interaction Design Research Triangle of  
**Design Practice,**  
**Design Studies, and**  
**Design Exploration**

**Daniel Fallman**





Real  
Judgement, Intuitive, and  
Taste  
Competence  
Particular and contextual  
Client  
Create  
Change  
Involving and Synthetic

Context driven,  
particular, and synthetic

Cumulative, Distancing,  
and Describing

Distancing and Analytic

True  
Logic  
Knowledge  
Universal  
Peers  
Explain  
Understand

## Design Practice

## Design Studies

Commercial design  
organizations  
Commercial design  
organizations

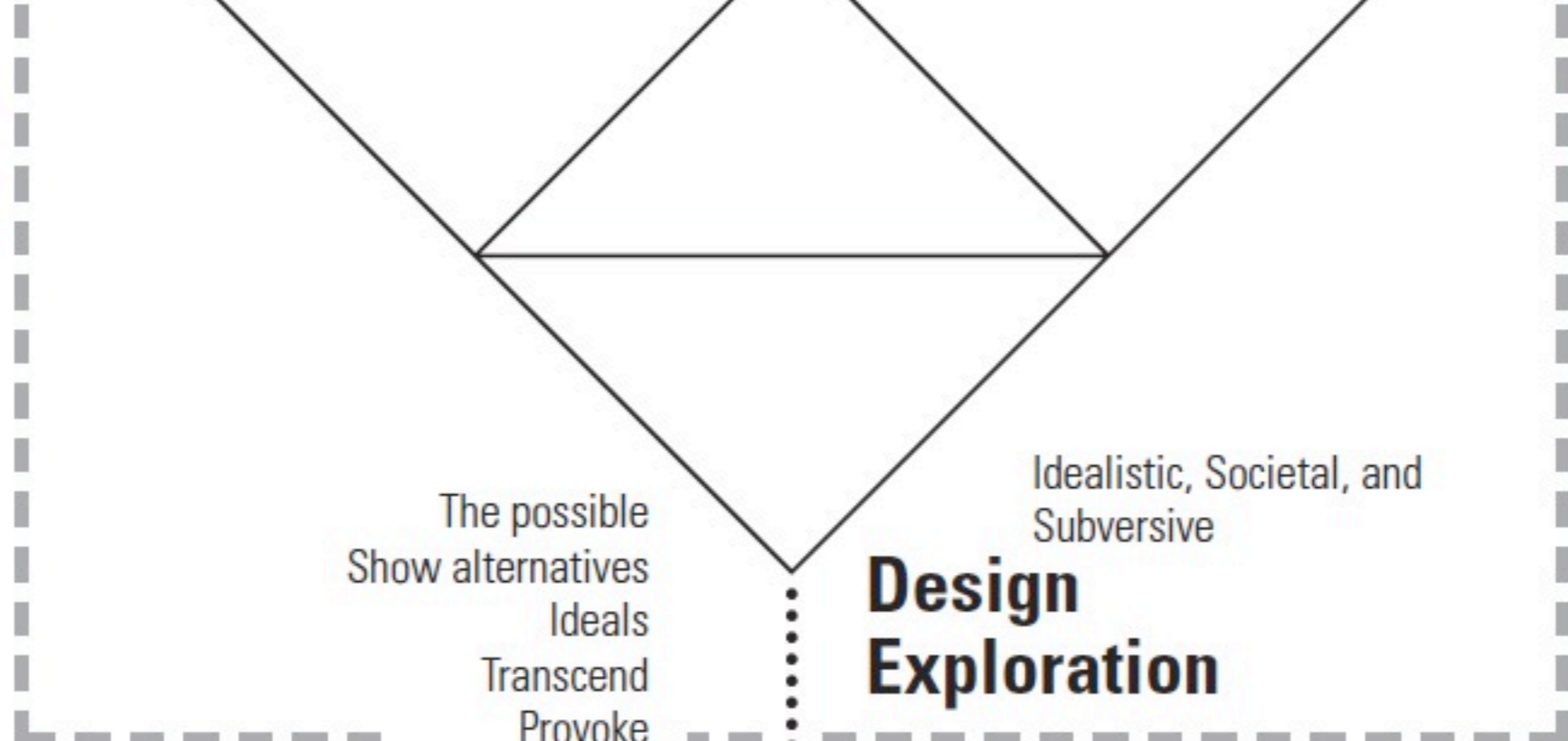
Other  
disciplines  
Philosophy

The possible  
Show alternatives  
Ideals  
Transcend  
Provoke  
Experiment  
Aesthetics  
Proactive  
Societal, "Now"-oriented  
Critique  
Political

Idealistic, Societal, and  
Subversive

## Design Exploration

Design critique, Art,  
Humanities



# Sketching User Experiences

Bill Buxton

"Bill Buxton brings design leadership and creativity to Microsoft. Through his thought-provoking personal examples he is inspiring others to better understand the role of design in their own companies."

Bill Gates—Chairman, Microsoft Corp.

# Sketching User Experiences

getting the design right and the right design

Bill Buxton

**MK**  
MORGAN KAUFMANN



### Elaboration

(opportunity-seeking:  
from singular  
to multiples)

starting  
point

Design Process

### Reduction

(decision-making:  
from broad  
to specific)

focal  
point

### Elaboration

(opportunity-seeking:  
from singular  
to multiples)

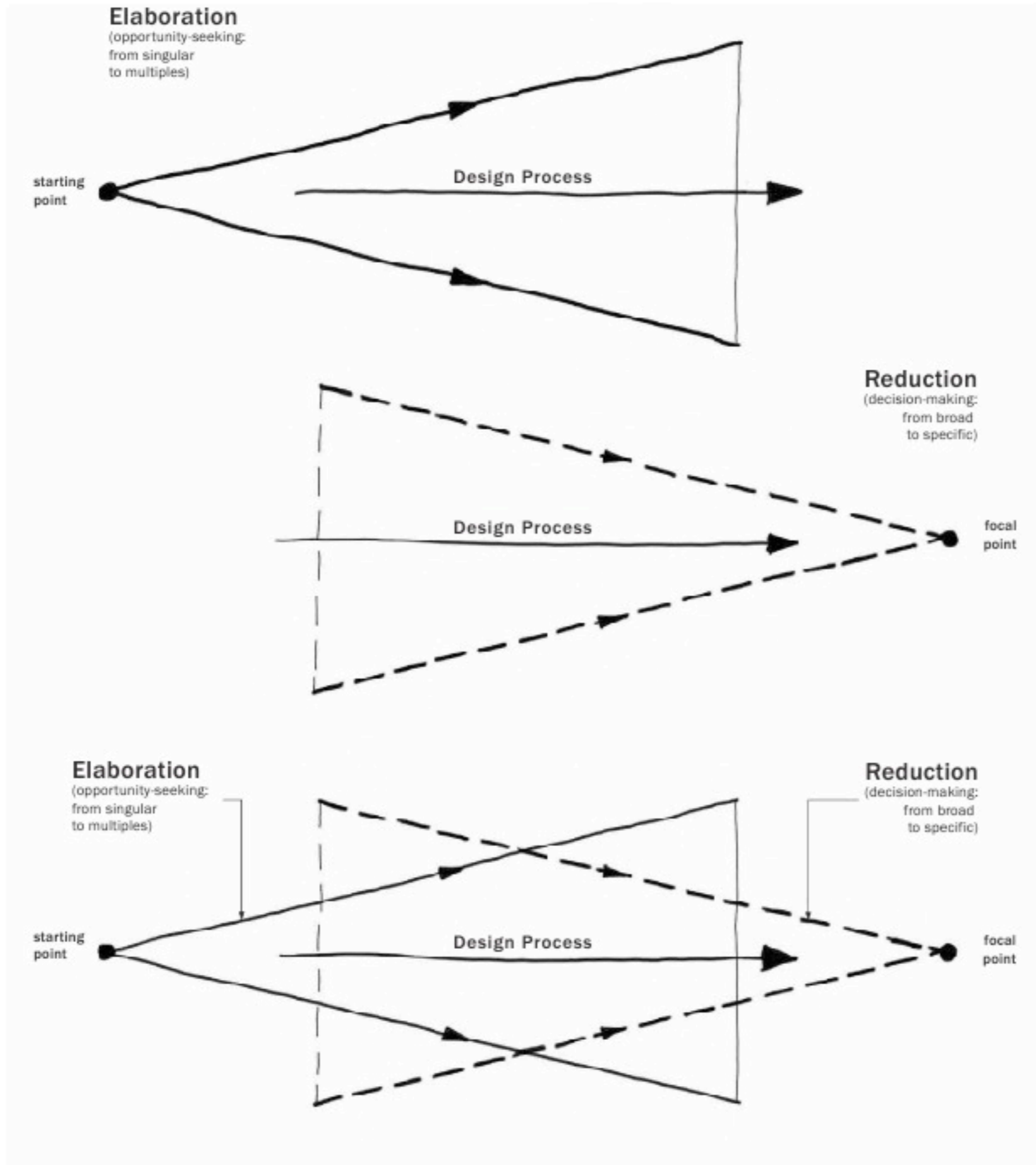
starting  
point

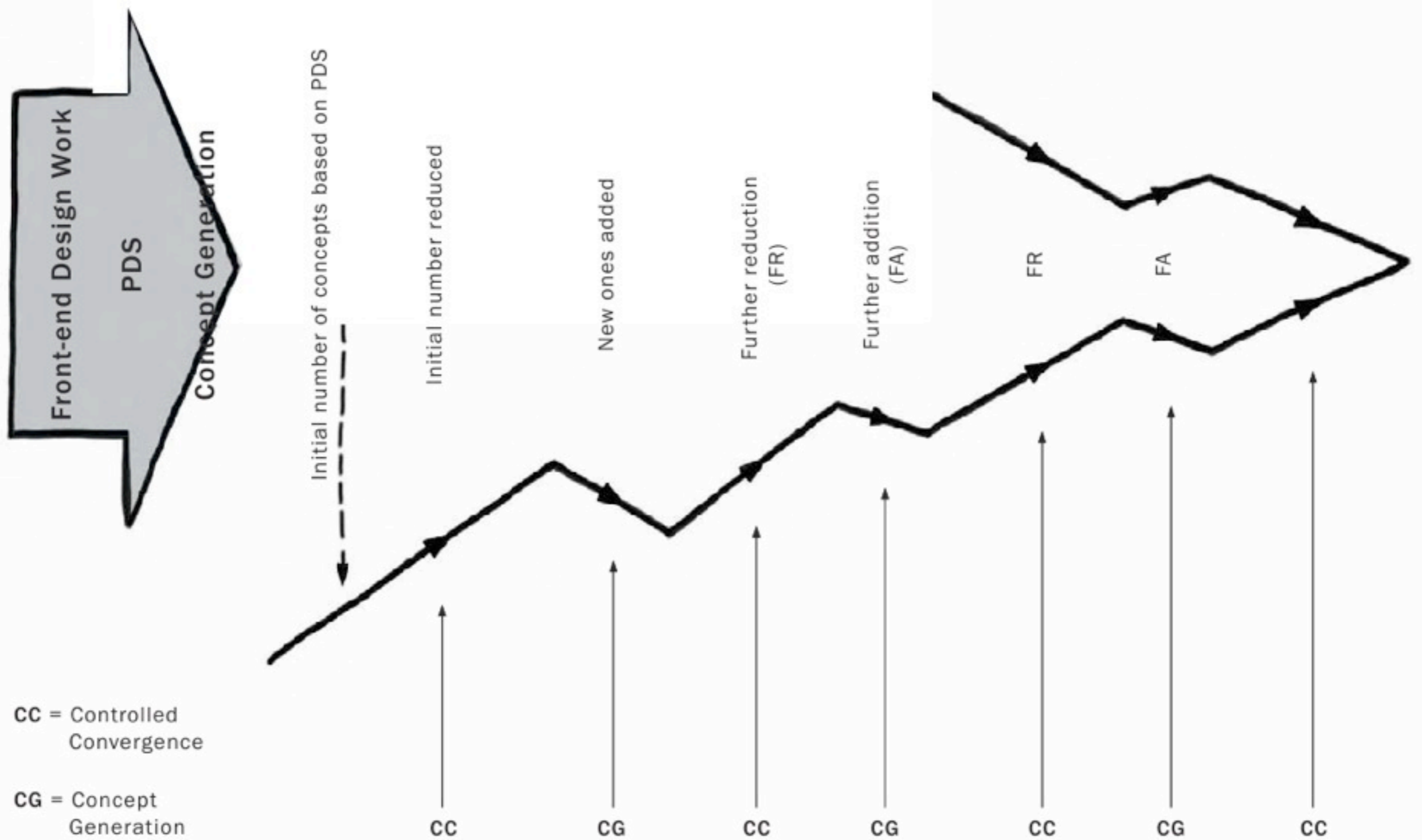
Design Process

### Reduction

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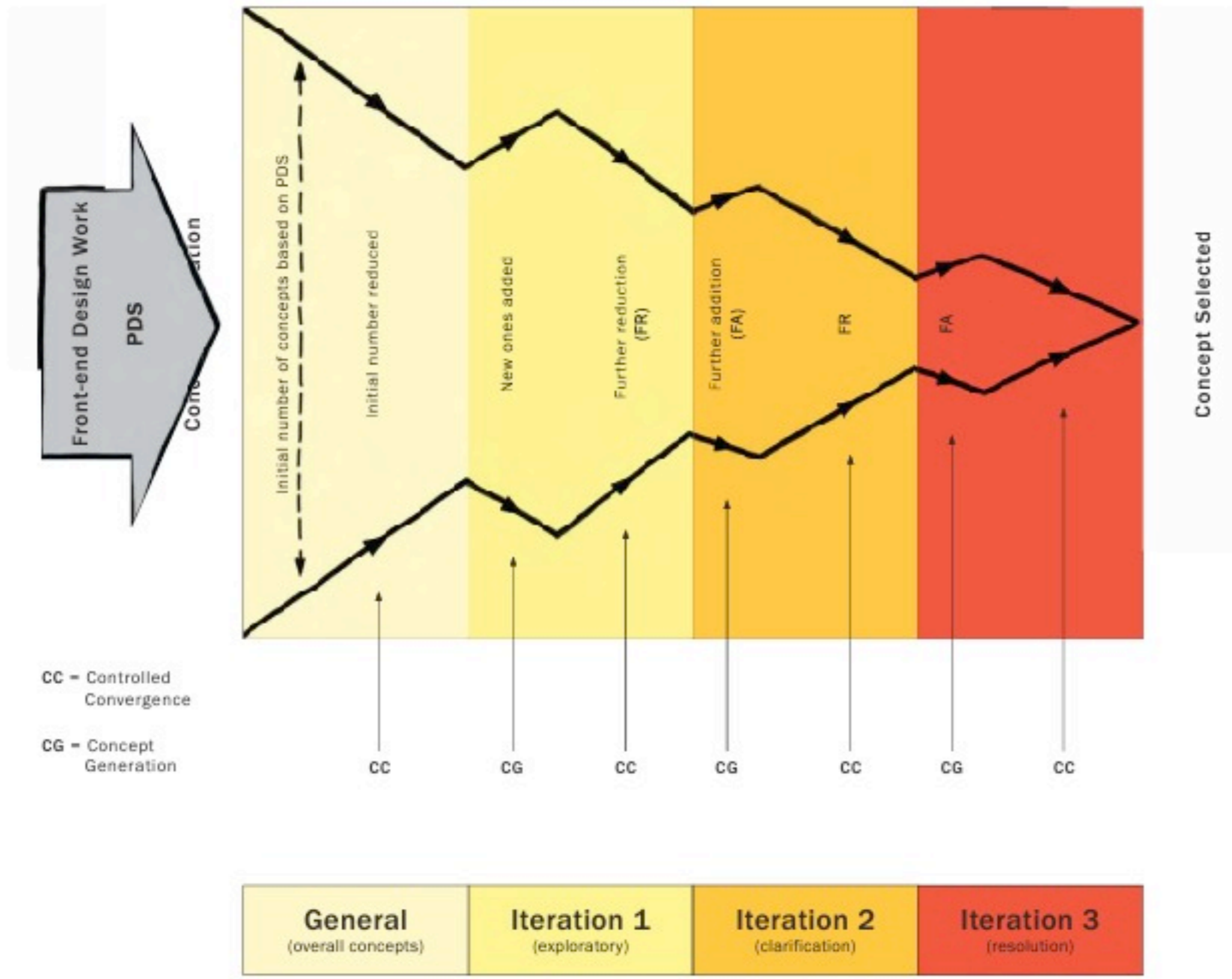




**Figure 54: Flexible Approach to Concept Generation and Selection**

This is yet another variation on representing the design funnel. After the front-end design work and the Product Design Specification (PDS), we see the process alternating between concept generation (CG) and concept convergence (CC), with the overall process gradually converging to the final concept.

Source: Pugh 1990; p. 75



**Figure 55: Another View of the Funnel**  
 This variation on Pugh's illustration emphasizes the iterative nature of the process  
 Source: Pugh 1990; p. 75

**“Tangible interfaces  
are hard to get right”**

**Gillian Crampton Smith, TEI 2011 keynote**

## MAPPING THE SPACE OF TEIs

	input	feedback	result
<i>Command line interface</i>	minimal physical	visual symbolic	visual symbolic
<i>1940s airplane cockpit</i>	rich physical	visual/physical actuators/ proprioceptive	physical actuators
<i>Today's airplane cockpit</i>	medium physical	visual	physical
<i>Today's gui</i>	medium physical	visual/auditory	visual iconic
<i>Reactable</i>	rich physical	visual/auditory/ proprioceptive	auditory
<i>Double base</i>	rich physical	kinaesthetic/ auditory	auditory
<i>Electric drill</i>	rich physical	visual/auditory/ tactile	physical

**(Industrial) Design is about exploring solutions that are relevant for a particular project.**

**Example of process, Art Lebedev's traffic light for Istanbul, [link](#)**