Sketching the User Experience[1]

Concepts (and selected visuals) from this slide deck are based on:
-Buxton, B. (2007) Sketching User Experiences: Getting the Design Right and the Right Design. Morgan Kaufmann.

This slide deck is a very brief synopsis of Bill Buxton's main message, as found in:

Buxton, B. (2007) Sketching User Experiences: Getting the Design Right and the Right Design. Morgan Kaufmann.

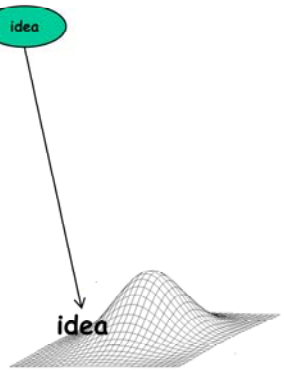
Fundamental idea:

- Sketching is about design.
- It is a fundamental tool that helps designers express, develop and communicate design ideas
- It is a critical part of a process that begins with idea generation, to idea design, to design choices, to engineering

Why Sketch?

Getting the Design Right

- generate an idea



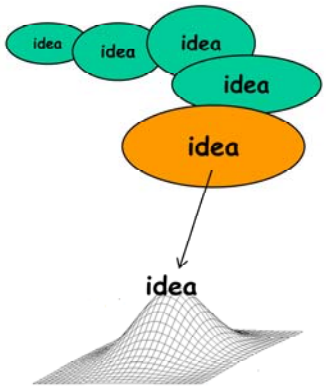
Graphs on the next few slides were modified from images found in the Sept. 2009 Wikipedia entry: *hill climbing*

Getting the right design is about starting with a single design idea – usually the first idea you generate -…

Why Sketch?

Getting the Design Right

- generate an idea
- iterate and develop it



But is it the best idea?

… and iteratively developing it until its as good as it can get. If you are really good, it will be the optimal design for that idea.

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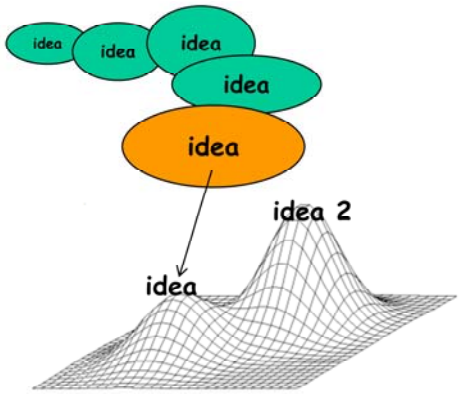
But is it the best idea possible? Unlikely.

Why Sketch?

Getting the Design Right

- generate an idea
- iterate and develop it



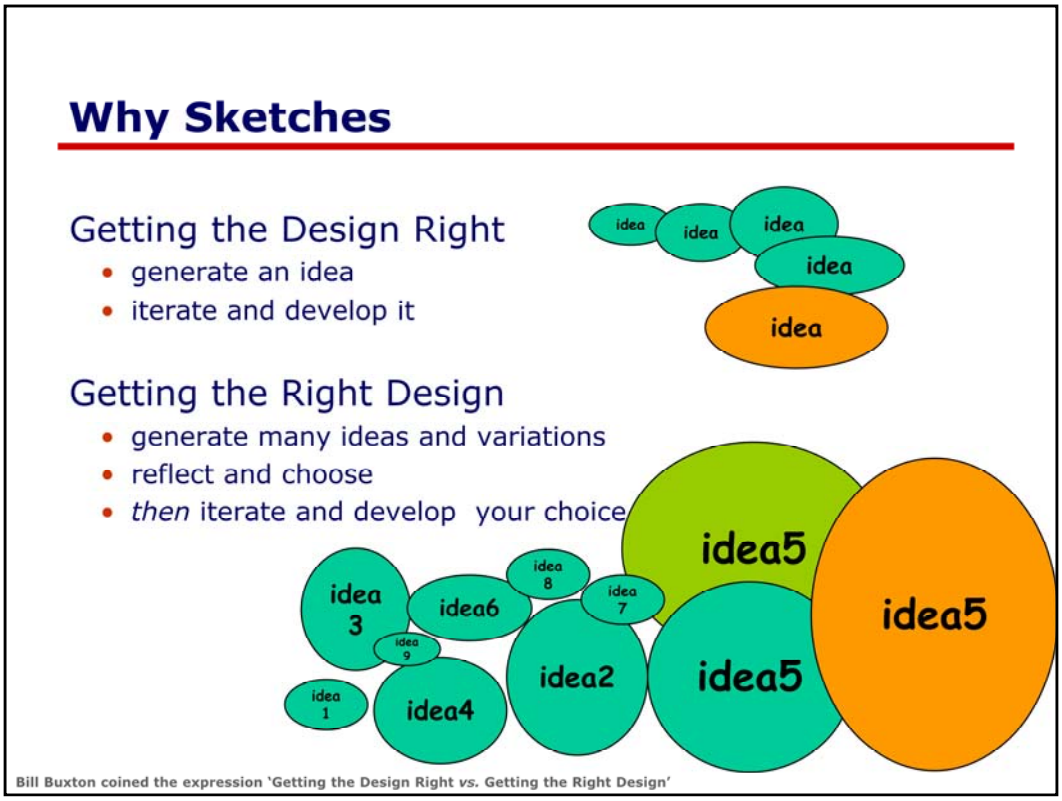
The problem

- other better solutions may be available in different ideas
- local *vs.* global maxima (local hill climbing)
- often results from fixating on a single idea

The problem is that the design can only be as good as that particular idea. If the idea is not a good one, the best solution will only be so so.

In Computer Science, this is known as *local hill climbing,* where the local maxima is potentially much less than the optimal or global maxima

The point is that if you look at many ideas rather than a single one, you may find a better overall solution



This is called Getting the Right Design *vs.* Getting the Design Right , that is Getting the right design:

-generate many ideas, e.g., inspired by by brainstorming, discussions, lateral thinking, client discussions, observations, etc.

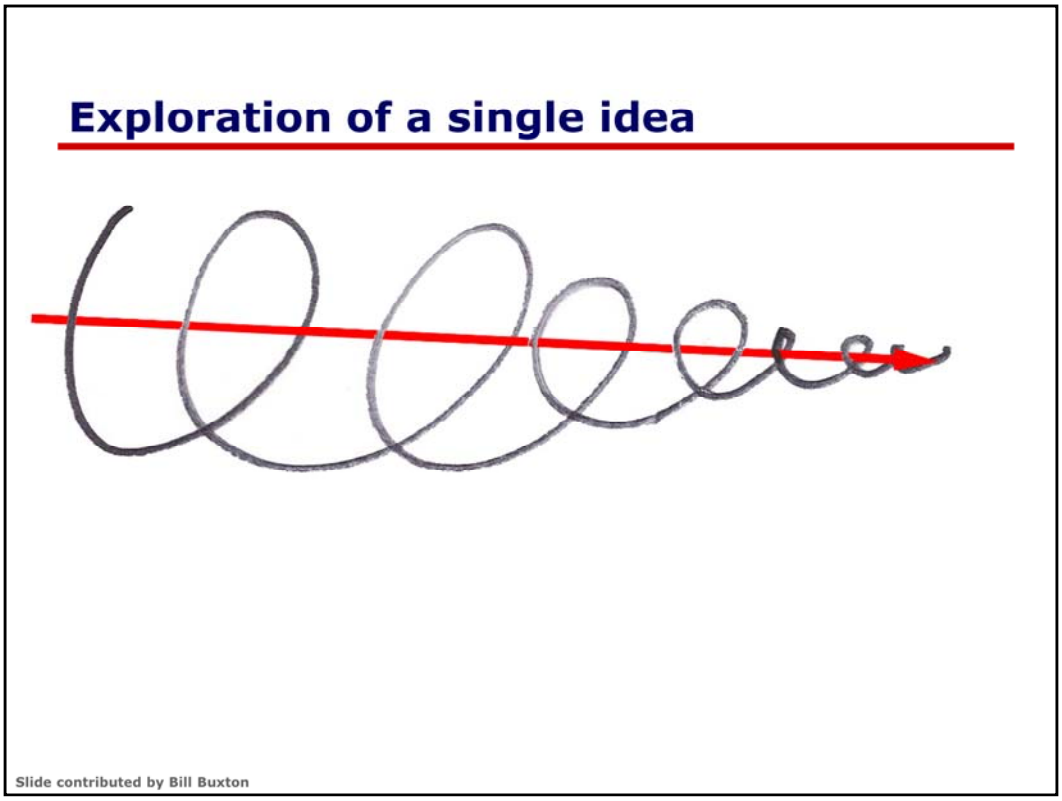
-reflect on all your ideas; choose the ones that look promising

then Get the design right:

-iterate and develop your choices

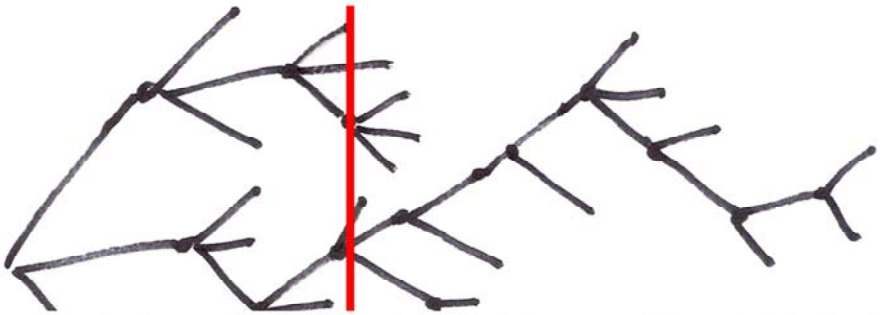
-continually refine your choices as the better solutions become apparent

-of course, add in new ideas as they come up



Exploring a single idea will propel you down one path, towards a single convergence point

Exploration of Alternatives



… a designer that pitched three ideas would probably be fired. I'd say 5 is an entry point for an early formal review (distilled from 100's) … if you are pushing one you will be found out, and also fired … it is about open mindedness, humility, discovery, and learning. If you aren't authentically dedicated to that approach you are just doing it wrong!

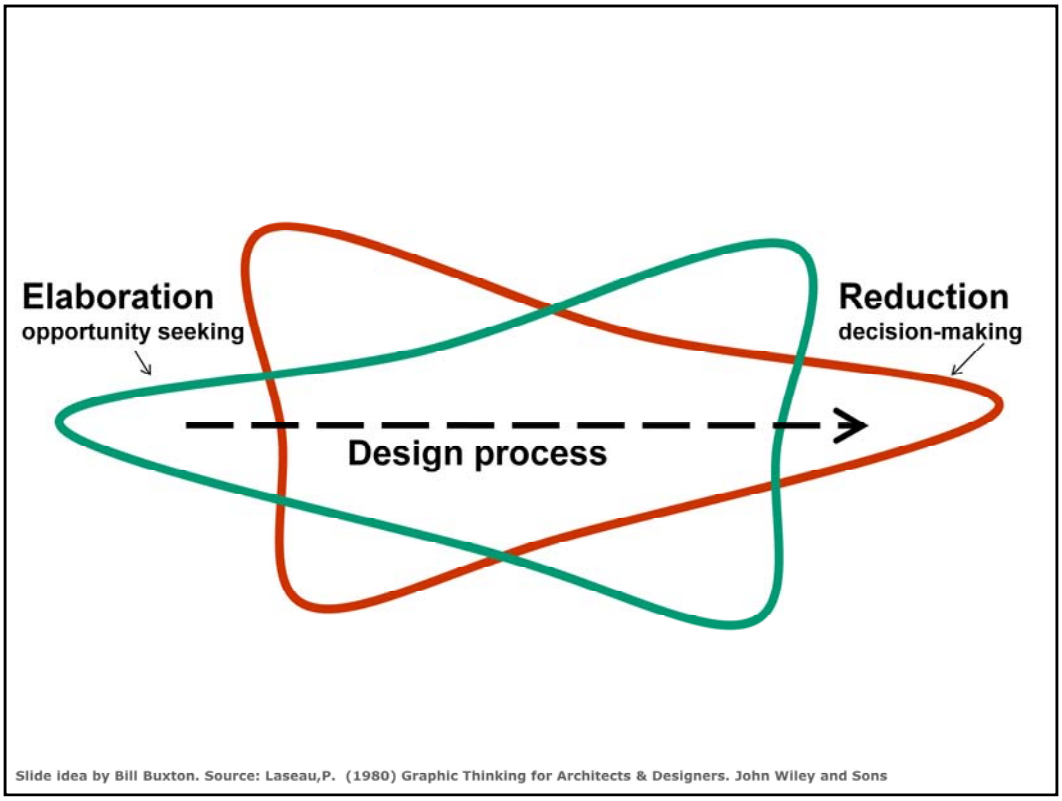
Alistair Hamilton
VP Design
Symbol Technologies

Slide contributed by Bill Buxton

With alternatives, you can compare multiple solutions at any point in time, and choose one or more branches to follow

As an example, consider the many design variations of the traditional keypad cell phone.

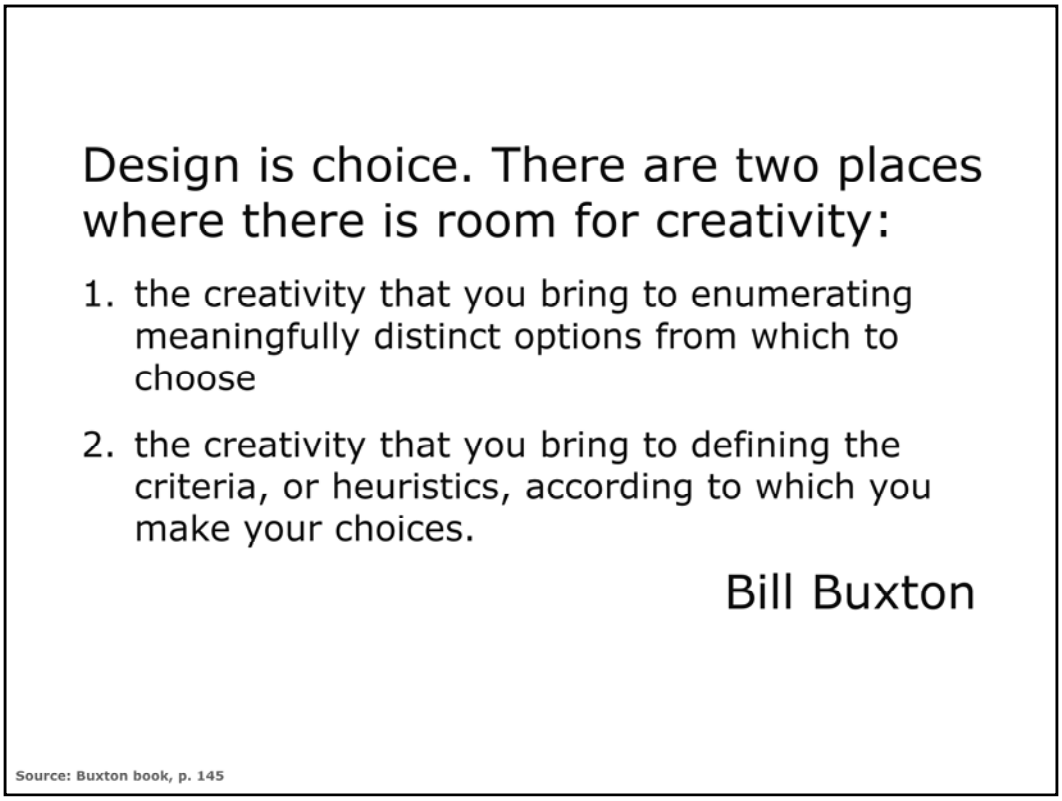
The iPhone design was a radical shift, as it was based on a different idea for input: touch



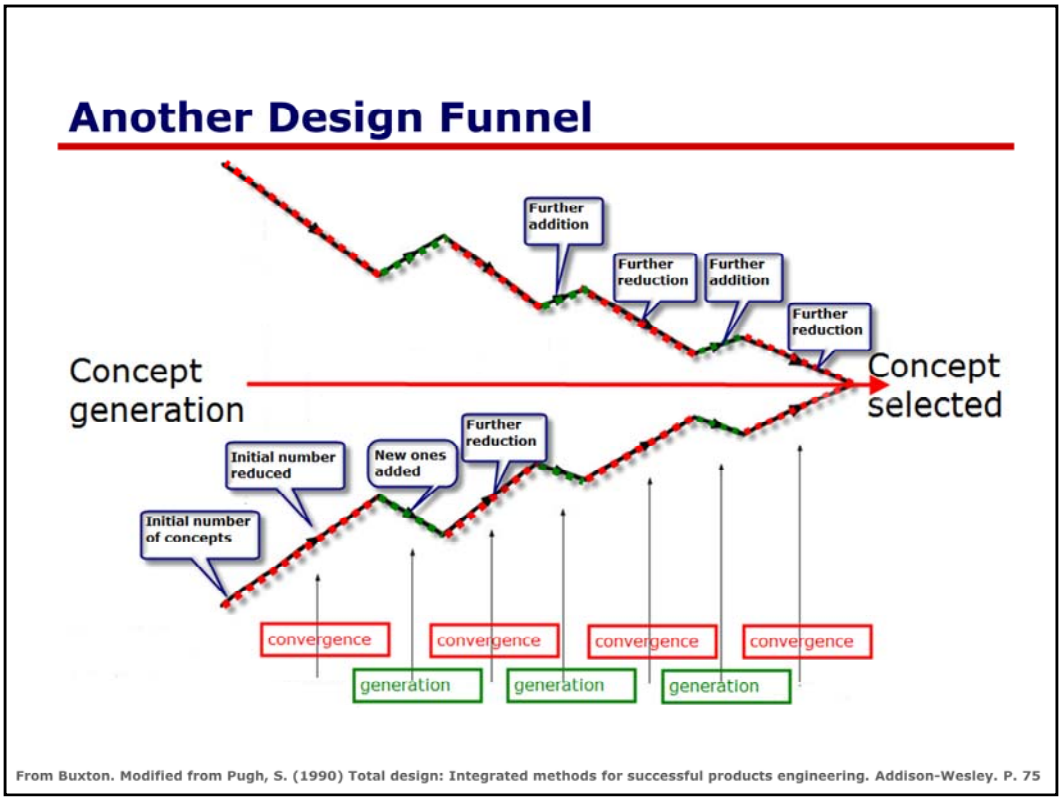
Here's another way to look at it. The design process is a symbiotic relationship between idea elaboration and reduction.

Elaboration: generate solutions. These are the opportunities

Reduction: decide on the ones worth pursuing, and then elaborate on those solutions

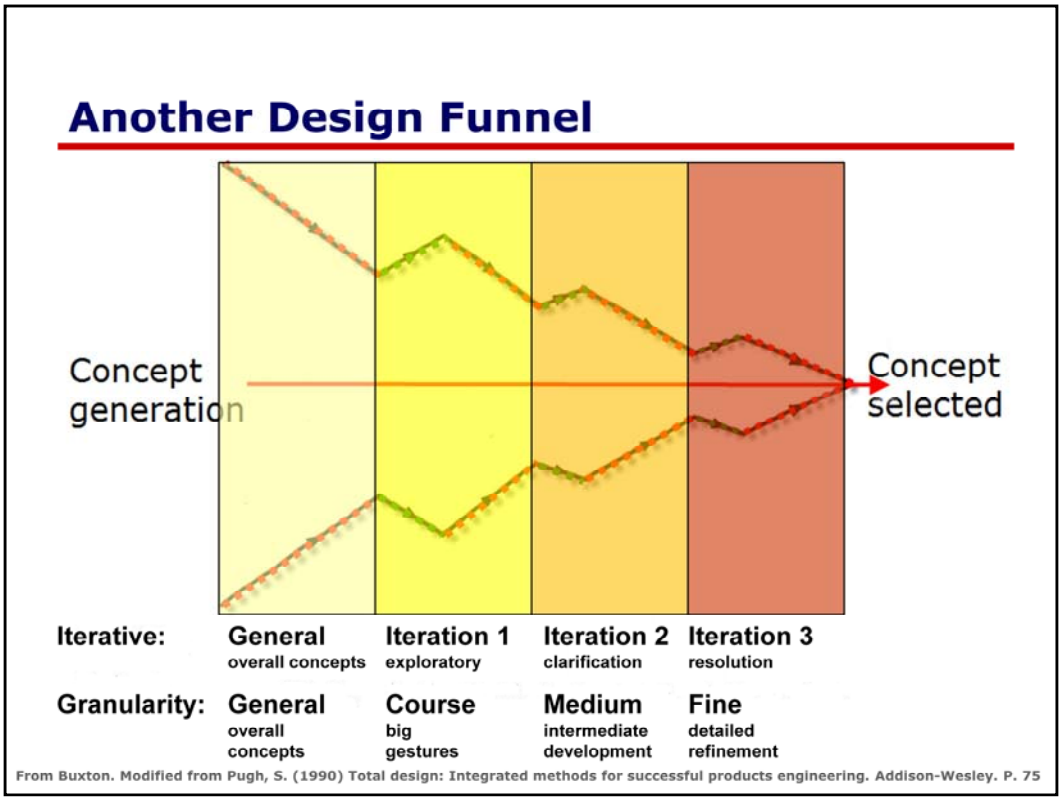


Bill Buxton's quote about design as choice stresses creativity in both generating meaningful ideas, and in choosing between these idea.



This is yet another variation on representing the design funnel, by S. Pugh.

Of importance, is that the generation of ideas and the convergence of ideas alternate, with the process gradually converging to the final concept

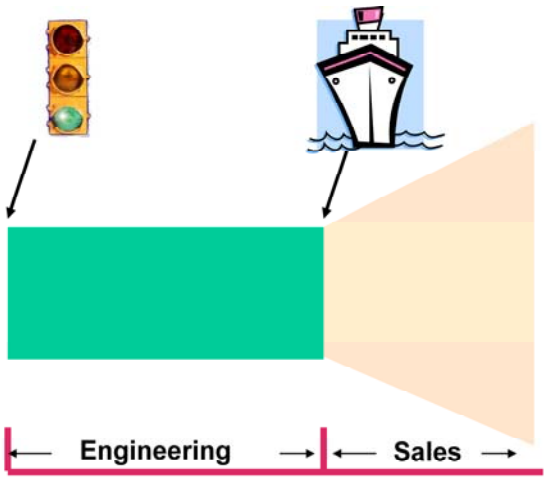


Here's a more detailed look at this design funnel.

First, each stage is iterative, where one constantly generates and reduces ideas until resolution

Second, the granularity of exploration and development is finer as these iterations progress

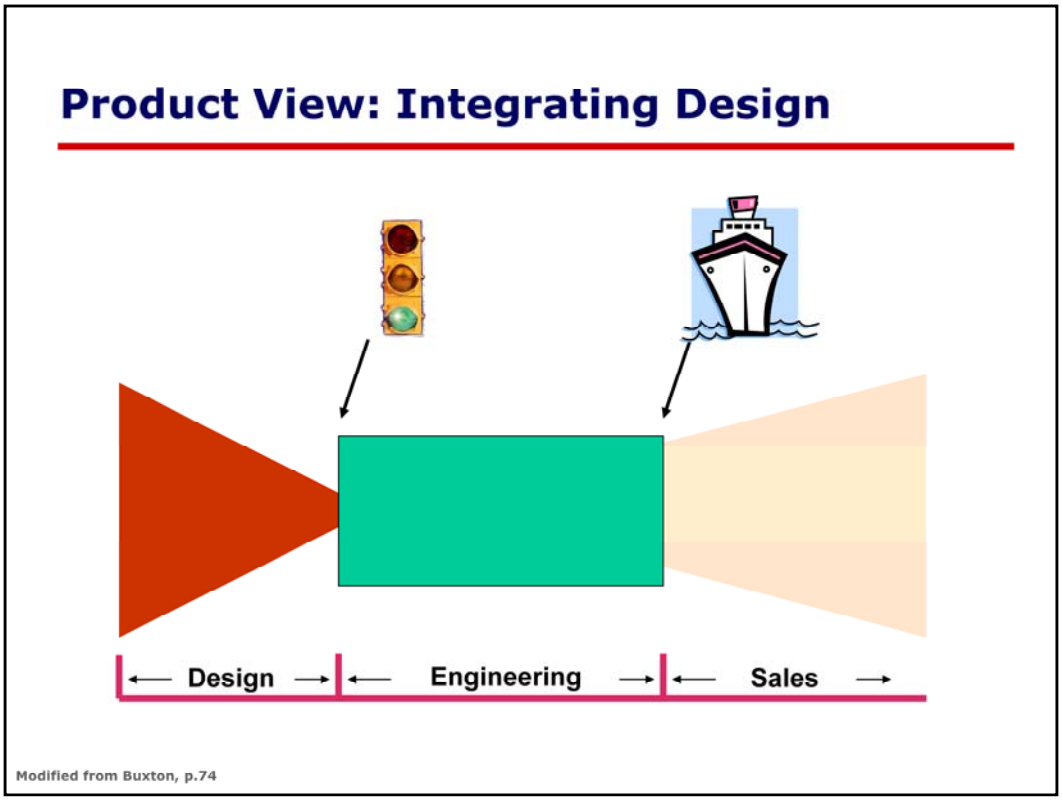
Product View: The Status Quo



Modified from Buxton, p.72

Lets now consider the importance of design in software product lifecycle. The ‘status quo’ is that projects get a green light right at the start, and go directly to engineering where they are built.

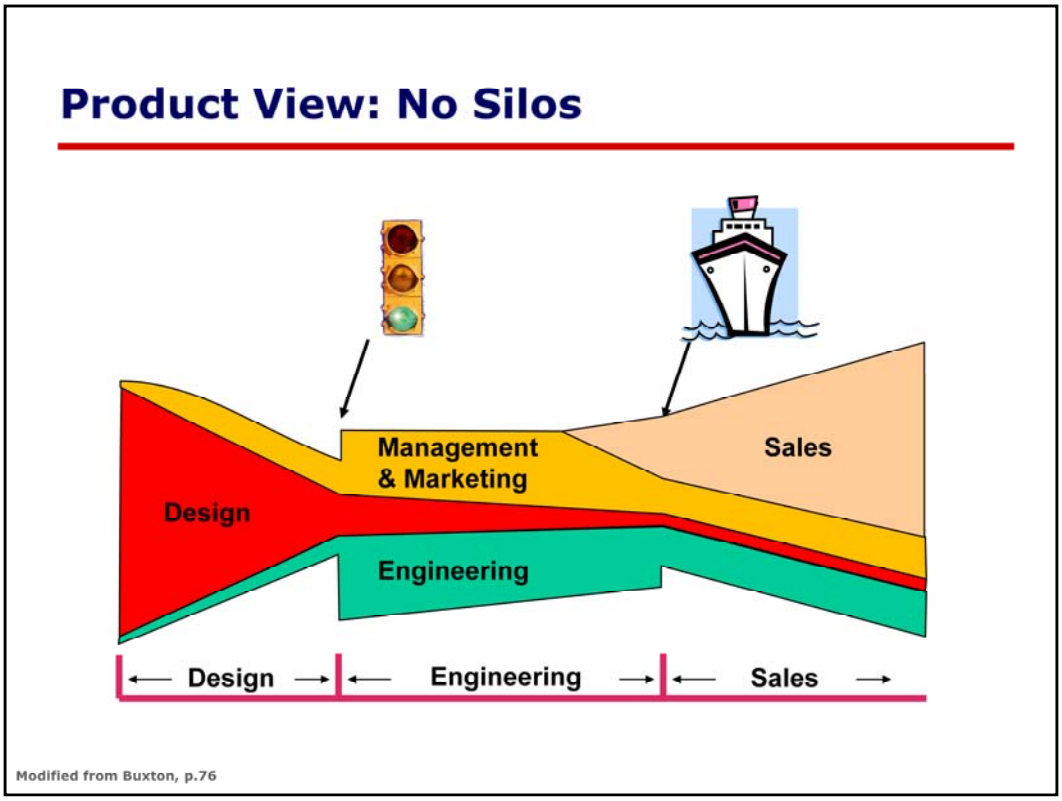
The next phase is when they ship – usually late, with bugs, over budget, and missing functionality.



By inserting an explicit design process prior to the green light, many designs can be considered before any commitment is made.

The design funnel generates and develops ideas in parallel, where it filters, and eliminates designs until convergence.

At that point one or more designs can be considered for green light.



This is perhaps a more accurate picture, as it shows the interplay between design, engineering, management, marketing and sales throughout the entire product cycle.

You now know

Sketching
- is about design

The design process is about
- getting the right design, and then getting the design right

The design funnel is about iteratively
- generating and elaborating designs
- choosing and reducing between designs

Design in product development is about
- using the design funnel to develop ideas for green/red light appraisal