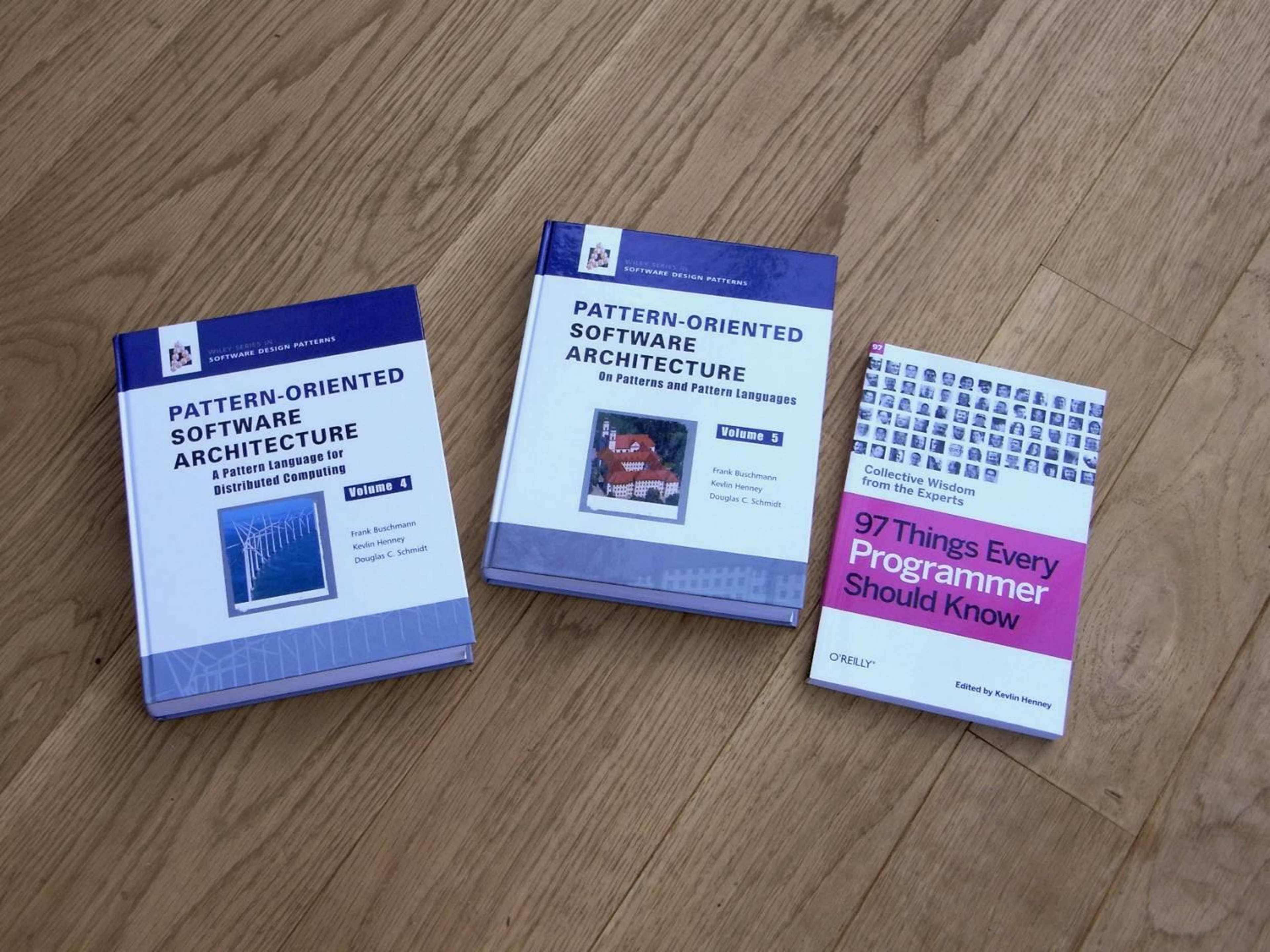
goto; conference aarhus

Worse Is Better, for Better or for Worse

@KevlinHenney

INTERNATIONAL
SOFTWARE DEVELOPMENT
CONFERENCE

gotocon.com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PATTERN-ORIENTED SOFTWARE ARCHITECTURE
A Pattern Language for Distributed Computing
Volume 4
Frank Buschmann
Kevlin Henney
Douglas C. Schmidt
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Collective Wisdom from the Experts
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Volume 26 No 7 July 2013
PHYSICS
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ew tools and fresh perspective
THE BEST NEW WRITING FROM THE INTERNATIONAL SALT PRIZES
The SALT ANTHOLOGY of NEW WRITING 2013
Edited by
Chris Hamilton-Emery
and Jen Hamilton-Emery
SALT
Scraps
A collection of flash-fictions from
National Flash-Fiction Day 2013
Edited by Calum Kerr and Holly Howitt

There are a thousand thoughts lying within a man that he does not know till he takes up the pen to write.

William Thackeray

I am irritated by my own writing. I am like a violinist whose ear is true, but whose fingers refuse to reproduce precisely the sound he hears within.

Gustave Flaubert

When I write, I feel like an armless, legless man with a crayon in his mouth.

Kurt Vonnegut

Stop Overpromising and Overshooting

We want to do everything all at once. Grand plans! Sweeping gestures! Epic 23-book fantasy cycles! Don’t overreach. Concentrate on what you can complete. Temper risk with reality.

Chuck Wendig
"25 Things Writers Should Stop Doing"
http://terribleminds.com/ramble/2012/01/03/25-things-writers-should-stop-doing/

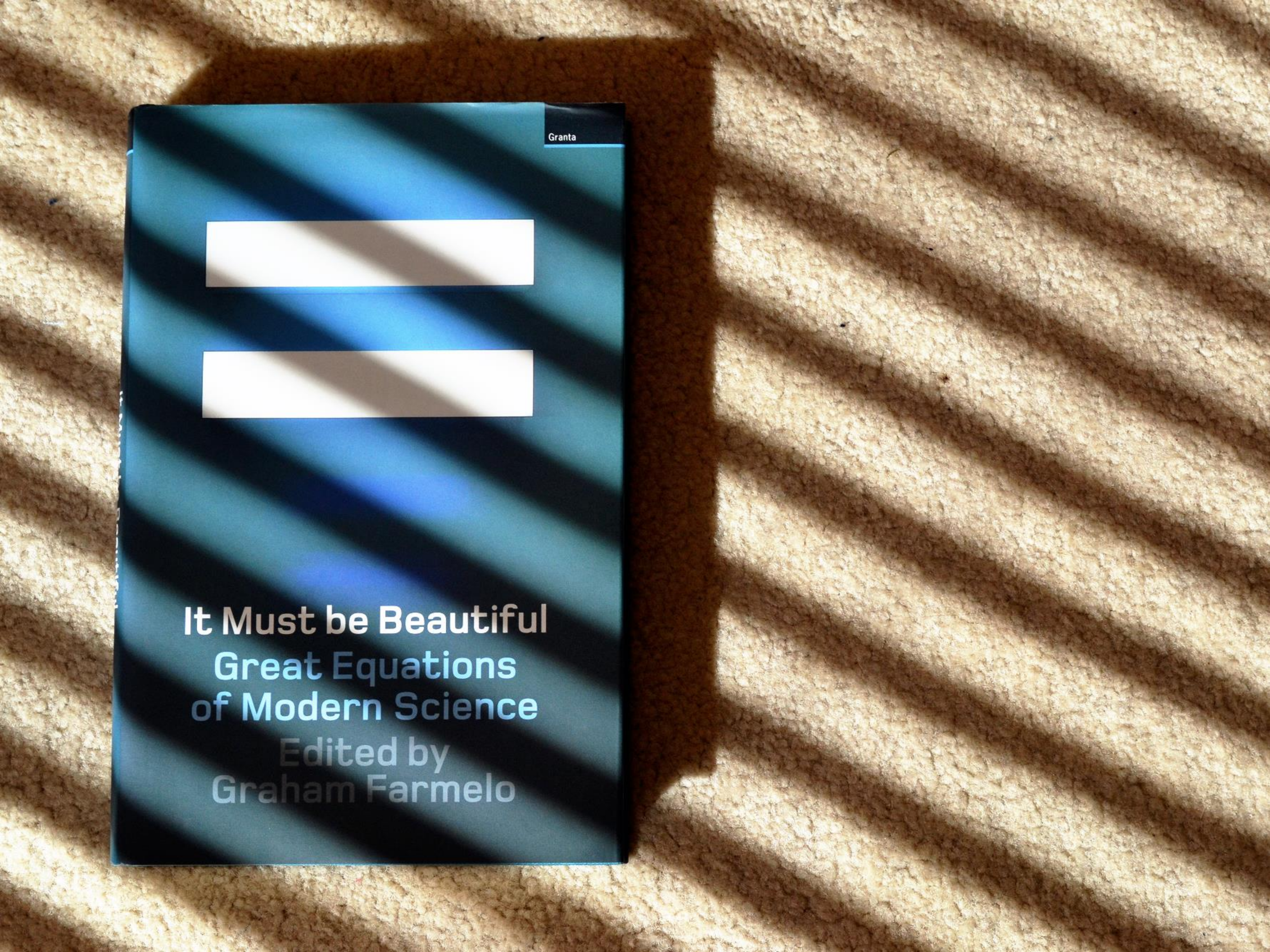
You have to finish things — that's what you learn from, you learn by finishing things.

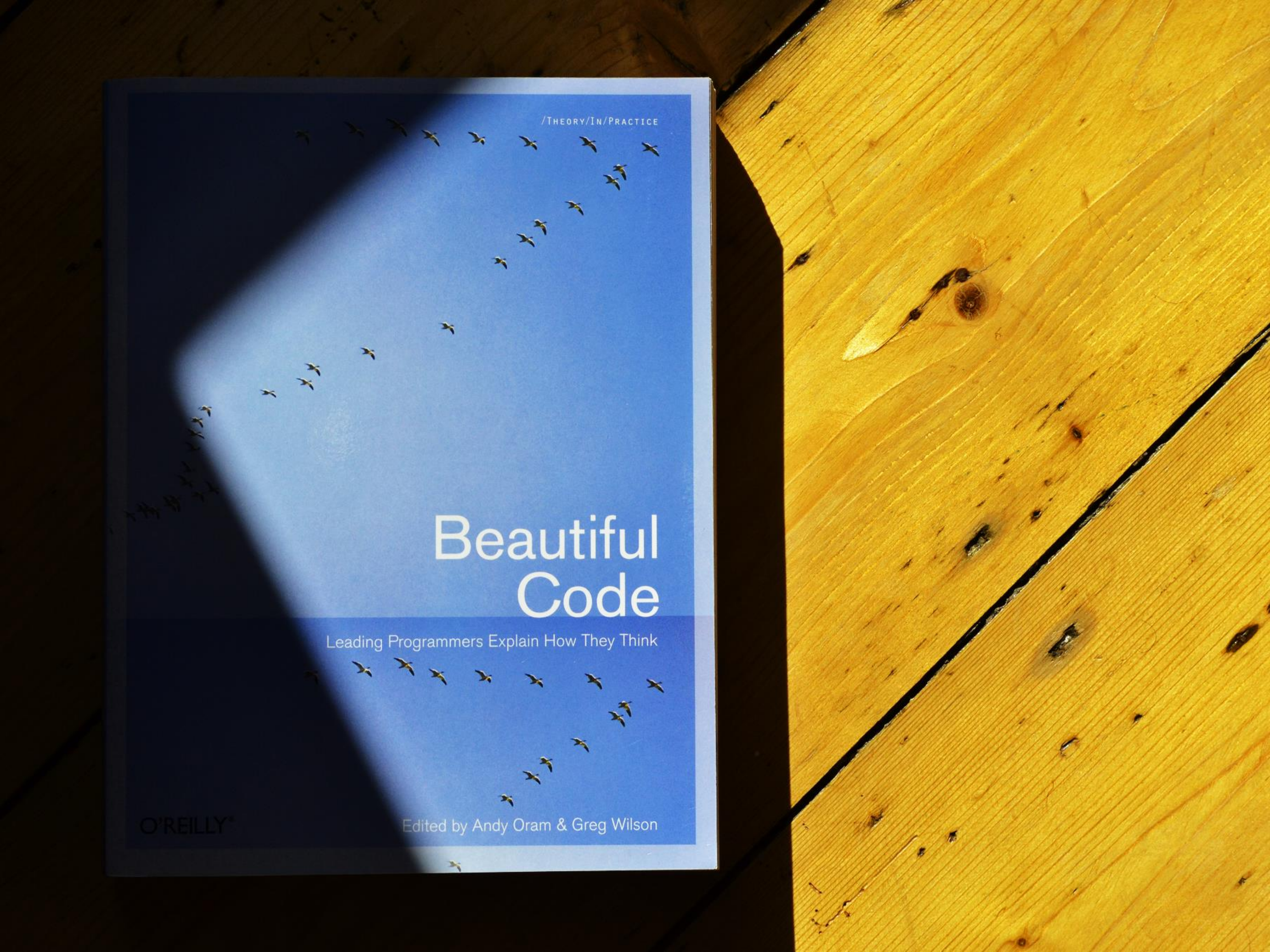
Neil Gaiman

Firmitas

Utilitas

Venustas


Granta
It Must be Beautiful
Great Equations of Modern Science
Edited by Graham Farmelo



/THEORY/IN/PRACTICE

Beautiful Code

Leading Programmers Explain How They Think

O'REILLY

Edited by Andy Oram & Greg Wilson

SMALLTALK–80

THE LANGUAGE

Adele Goldberg and David Robson

There are only two kinds of languages: the ones people complain about and the ones nobody uses.

Bjarne Stroustrup

I always have it in the back of my head that I want to make a slightly better C.

But getting everything to fit, top to bottom, syntax, semantics, tooling, etc., might not be possible or even worth the effort.

As it stands today, C is unreasonably effective, and I don't see that changing any time soon.

Damien Katz

http://damienkatz.net/2013/01/the_unreasonable_effectiveness_of_c.html

The "good enough software" concept popularized by Yourdon.

In many senses, it's just a rationalization of what's happening in the software world: the first company hitting the market with a feature-rich product is more likely to win the battle than the careful, quality-seeking company.

Carlo Pescio

http://www.eptacom.net/pubblicazioni/pub_eng/wirth.html

"Good enough software" is rarely good enough.

Niklaus Wirth

http://www.eptacom.net/pubblicazioni/pub_eng/wirth.html

```
#!/usr/bin/perl
# -----------------------------------------------------------   PerlInterpreter
# PerlInterpreter must be the first line of the file.
#
# Copyright (c) 1995, Cunningham & Cunningham, Inc.
#
# This program has been generated by the HyperPerl
# generator.  The source hypertext can be found
# at http://c2.com/cgi/wikibase.  This program belongs
# to Cunningham & Cunningham, Inc., is to be used
# only by agreement with the owner, and then only
# with the understanding that the owner cannot be
# responsible for any behaviour of the program or
# any damages that it may cause.
# -----------------------------------------------------------   InitialComments
```

```
# InitialComments
print "Content-type: text/html\n\n";
$DBM = "/usr/ward/$ScriptName";
dbmopen(%db, $DBM , 0666) || &AbortScript("can't open $DBM");
$CookedInput{browse} && &HandleBrowse;
$CookedInput{edit}   && &HandleEdit;
$CookedInput{copy}   && &HandleEdit;
$CookedInput{links}  && &HandleLinks;
$CookedInput{search} && &HandleSearch;
dbmclose (%db);
if ($ENV{REQUEST_METHOD} eq POST) {
$CookedInput{post}   && &HandlePost;
}
# &DumpBinding(*CookedInput);
# &DumpBinding(*old);
# &DumpBinding(*ENV);
# -----------------------------------------------------------   WikiInHyperPerl
```

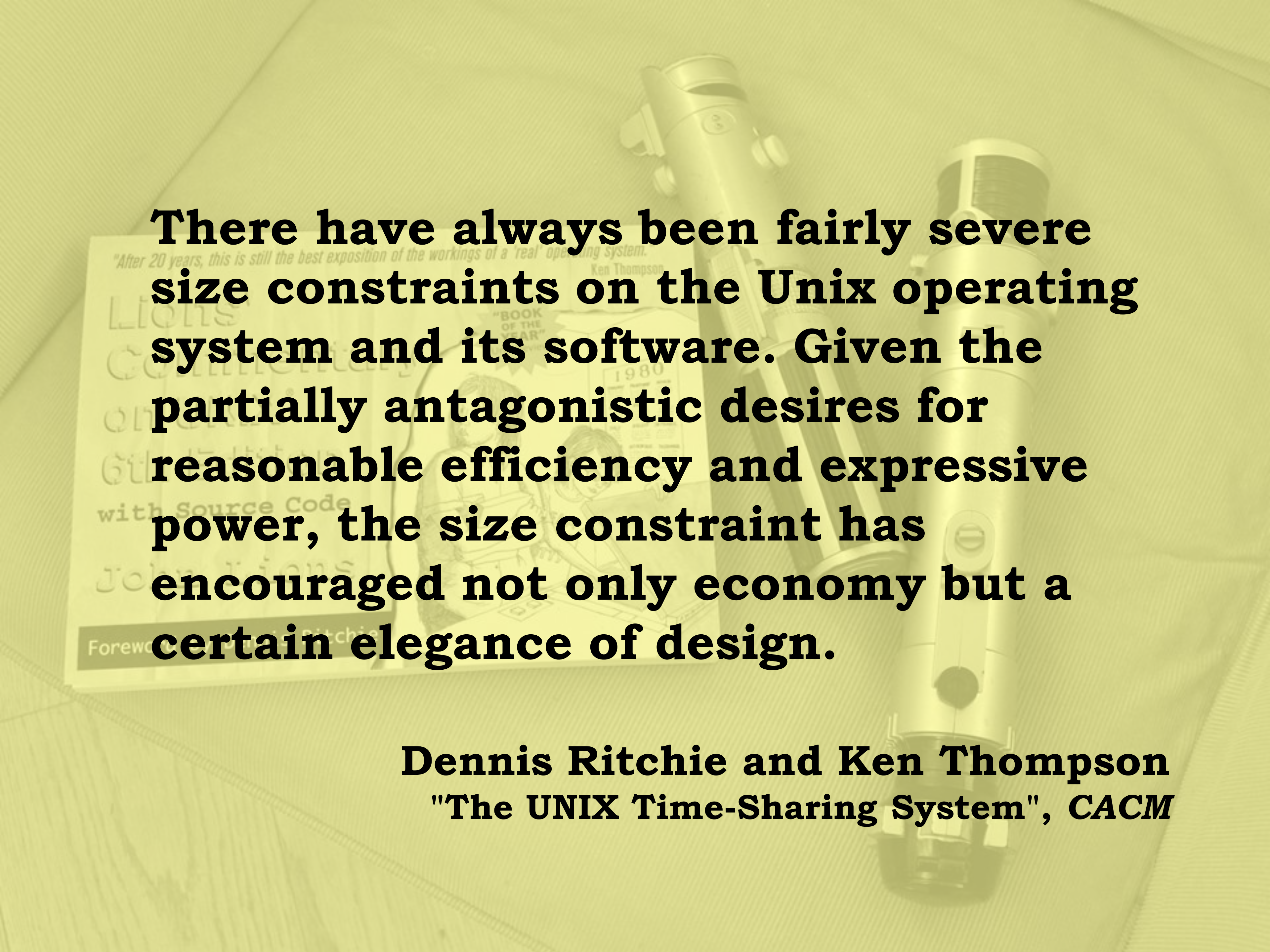
"After 20 years, this is still the best exposition of the workings of a 'real' operating system."
Ken Thompson

Lions' Commentary on UNIX® 6th Edition with Source Code

John Lions

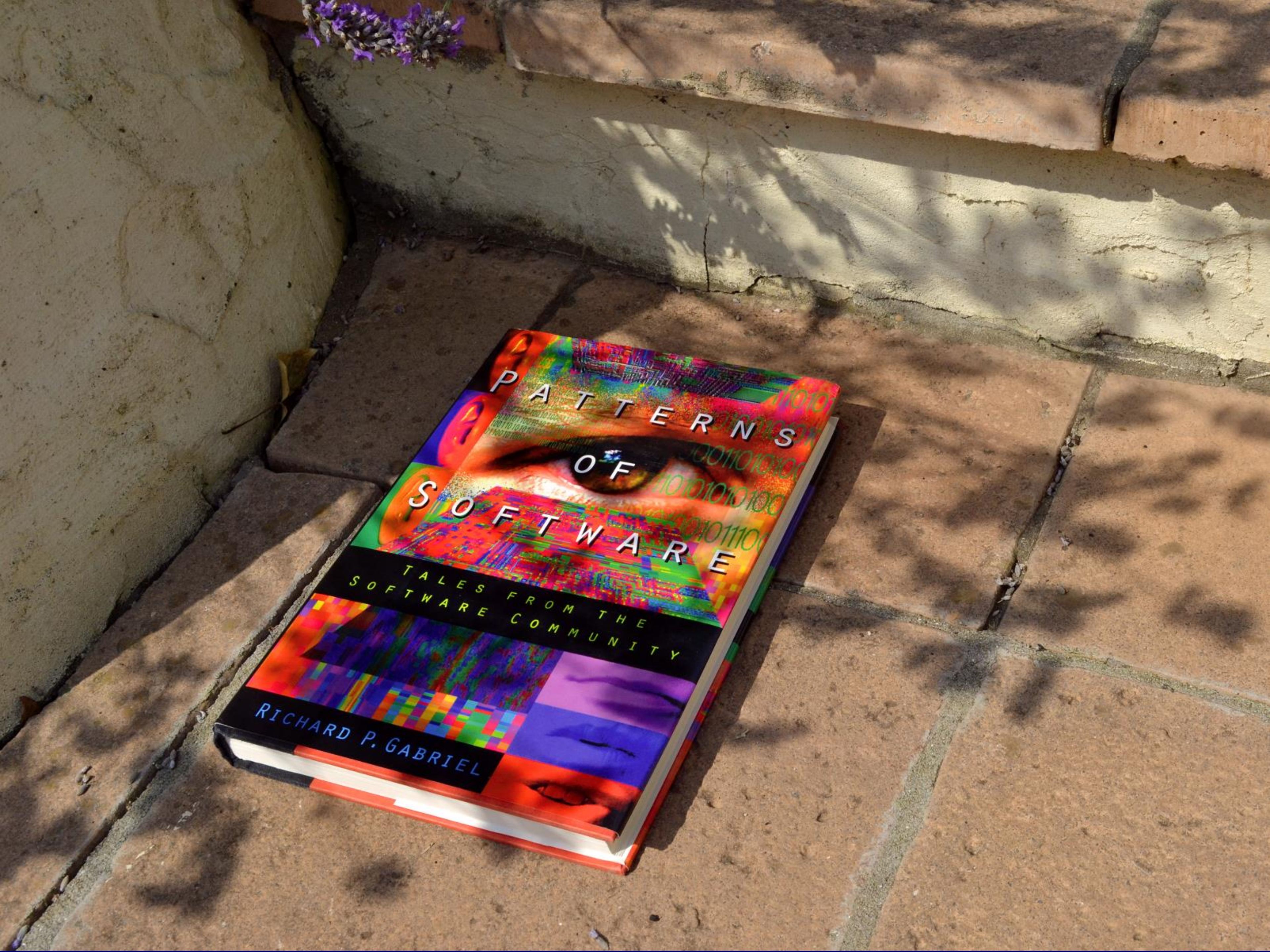
"BOOK OF THE YEAR"
Unix Review

Foreword by Dennis Ritchie


"After 20 years, this is still the best exposition of the workings of a 'real' operating system."
Ken Thompson
"BOOK OF THE YEAR"
1980
with Source Code

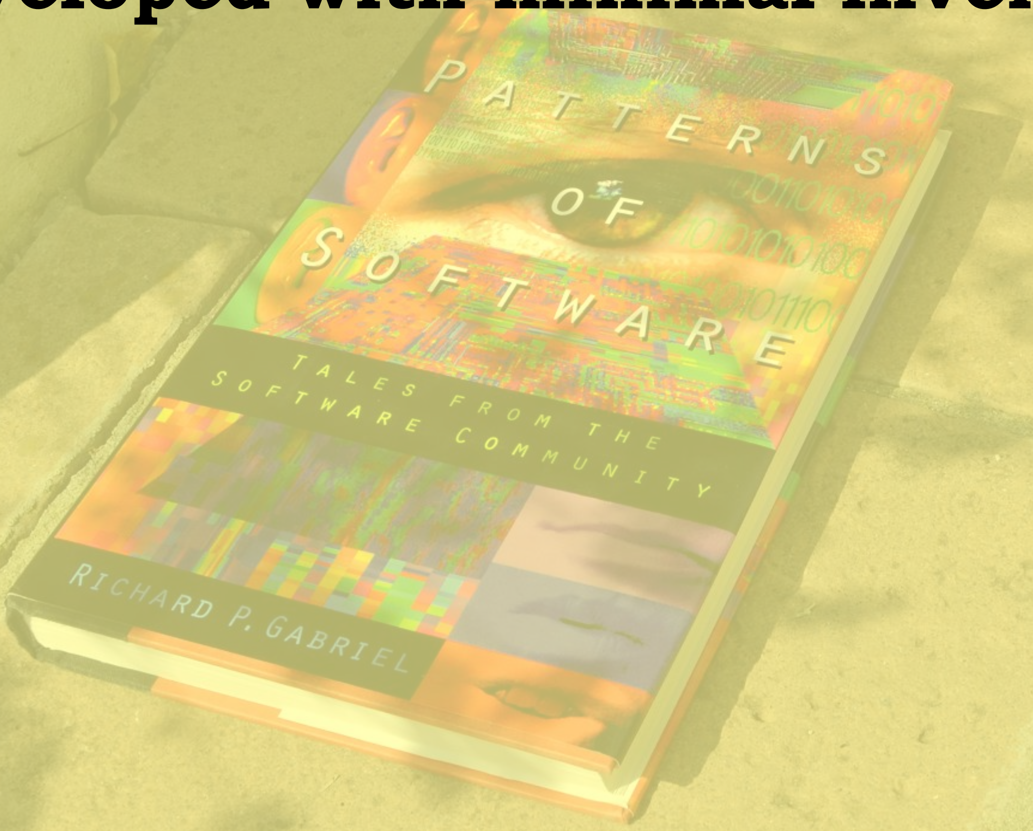
There have always been fairly severe size constraints on the Unix operating system and its software. Given the partially antagonistic desires for reasonable efficiency and expressive power, the size constraint has encouraged not only economy but a certain elegance of design.

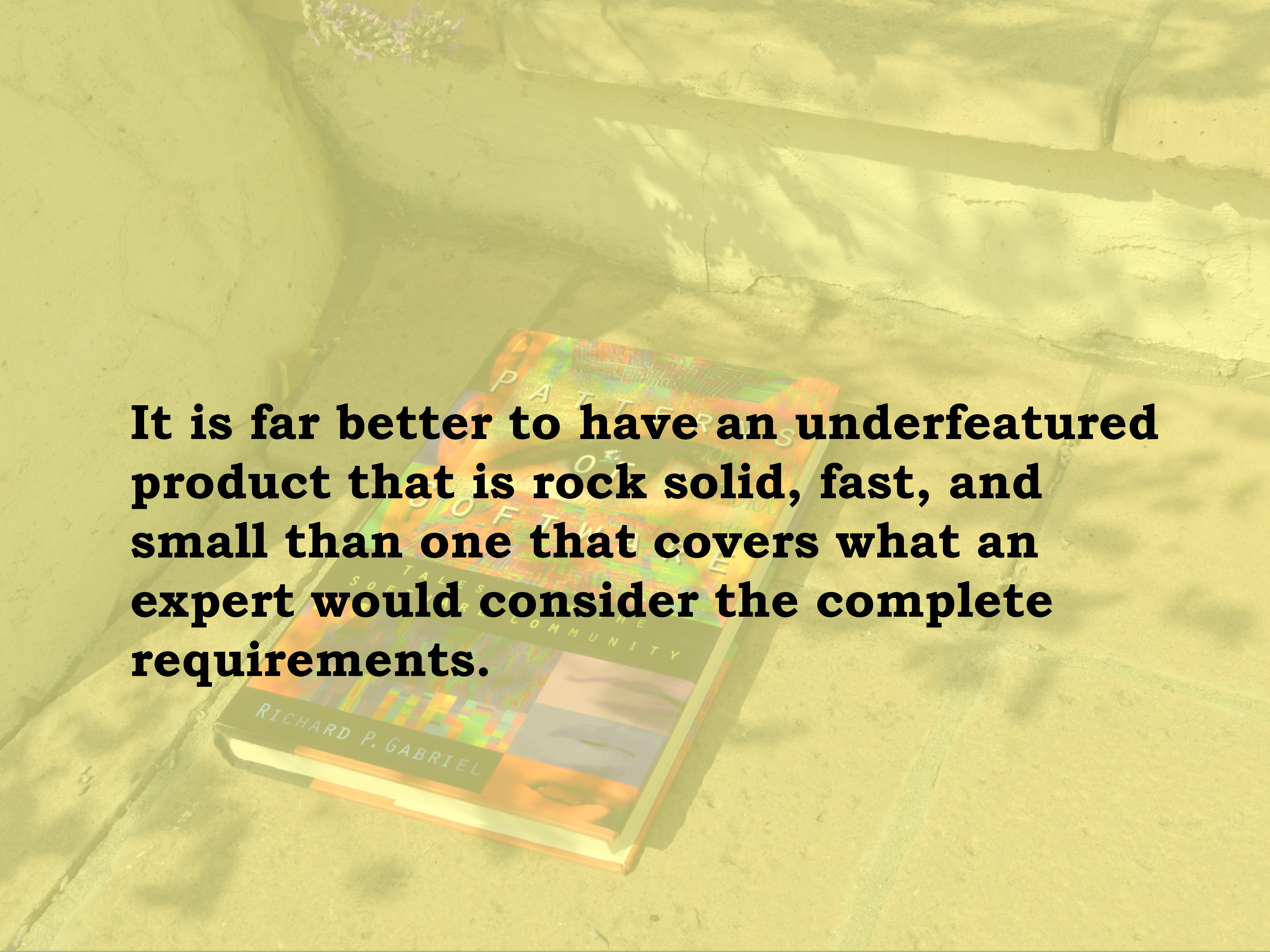
Dennis Ritchie and Ken Thompson
"The UNIX Time-Sharing System", *CACM*



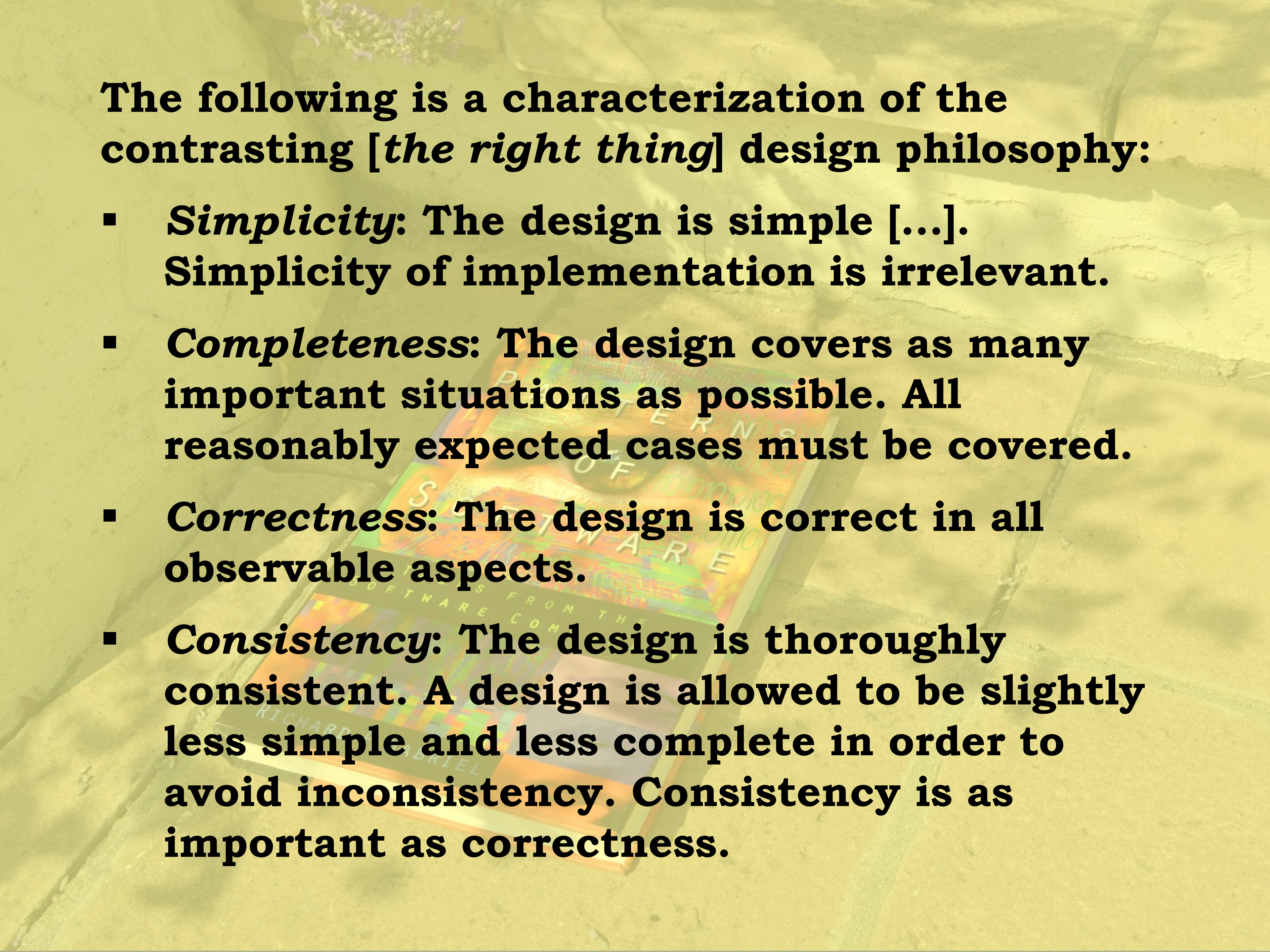
PATTERNS OF SOFTWARE
TALES FROM THE SOFTWARE COMMUNITY
RICHARD P. GABRIEL

In 1990 I proposed a theory, called *Worse Is Better*, of why software would be more likely to succeed if it was developed with minimal invention.



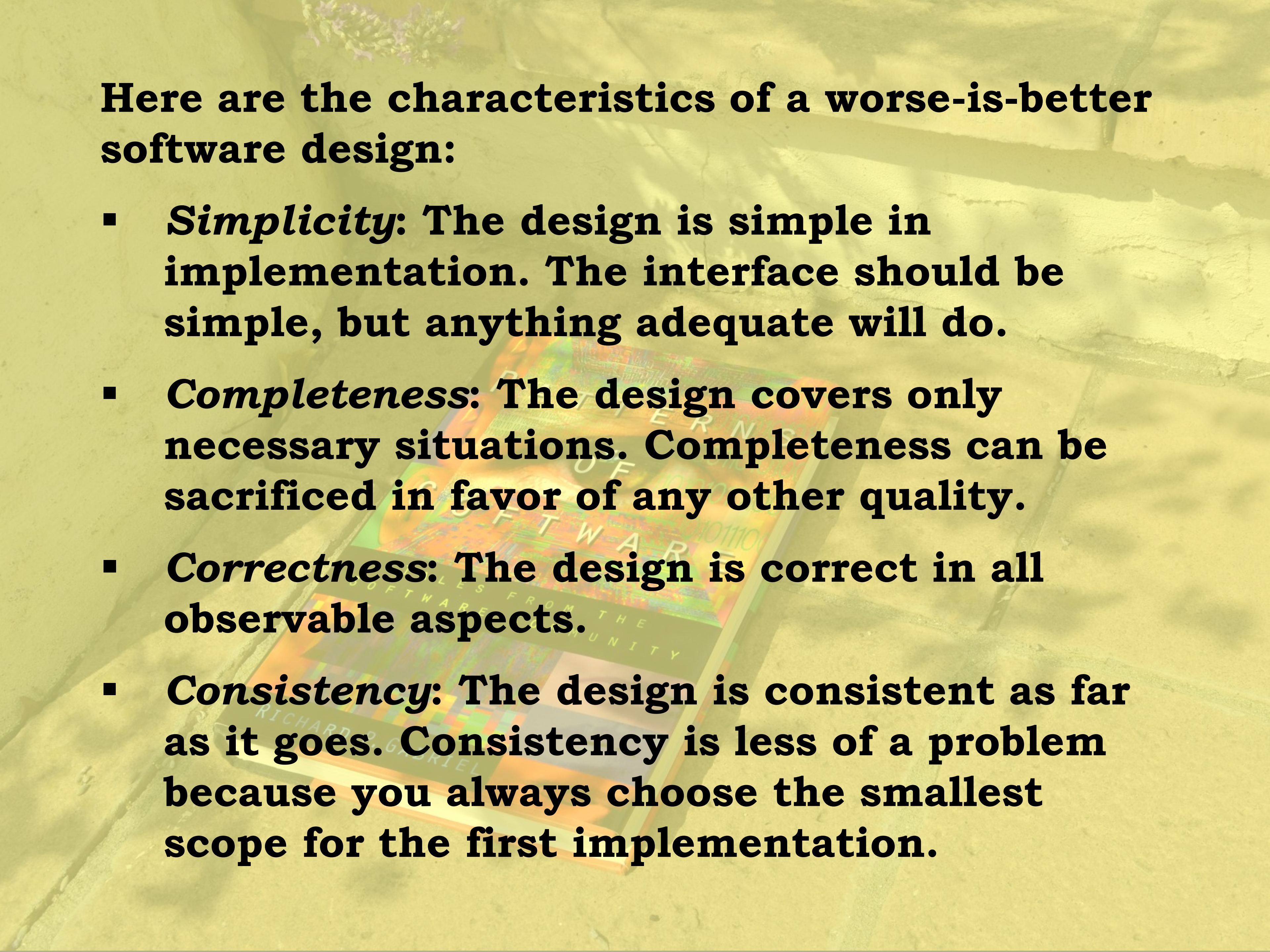


It is far better to have an underfeatured product that is rock solid, fast, and small than one that covers what an expert would consider the complete requirements.



The following is a characterization of the contrasting [*the right thing*] design philosophy:

- *Simplicity*: The design is simple [...]. Simplicity of implementation is irrelevant.
- *Completeness*: The design covers as many important situations as possible. All reasonably expected cases must be covered.
- *Correctness*: The design is correct in all observable aspects.
- *Consistency*: The design is thoroughly consistent. A design is allowed to be slightly less simple and less complete in order to avoid inconsistency. Consistency is as important as correctness.

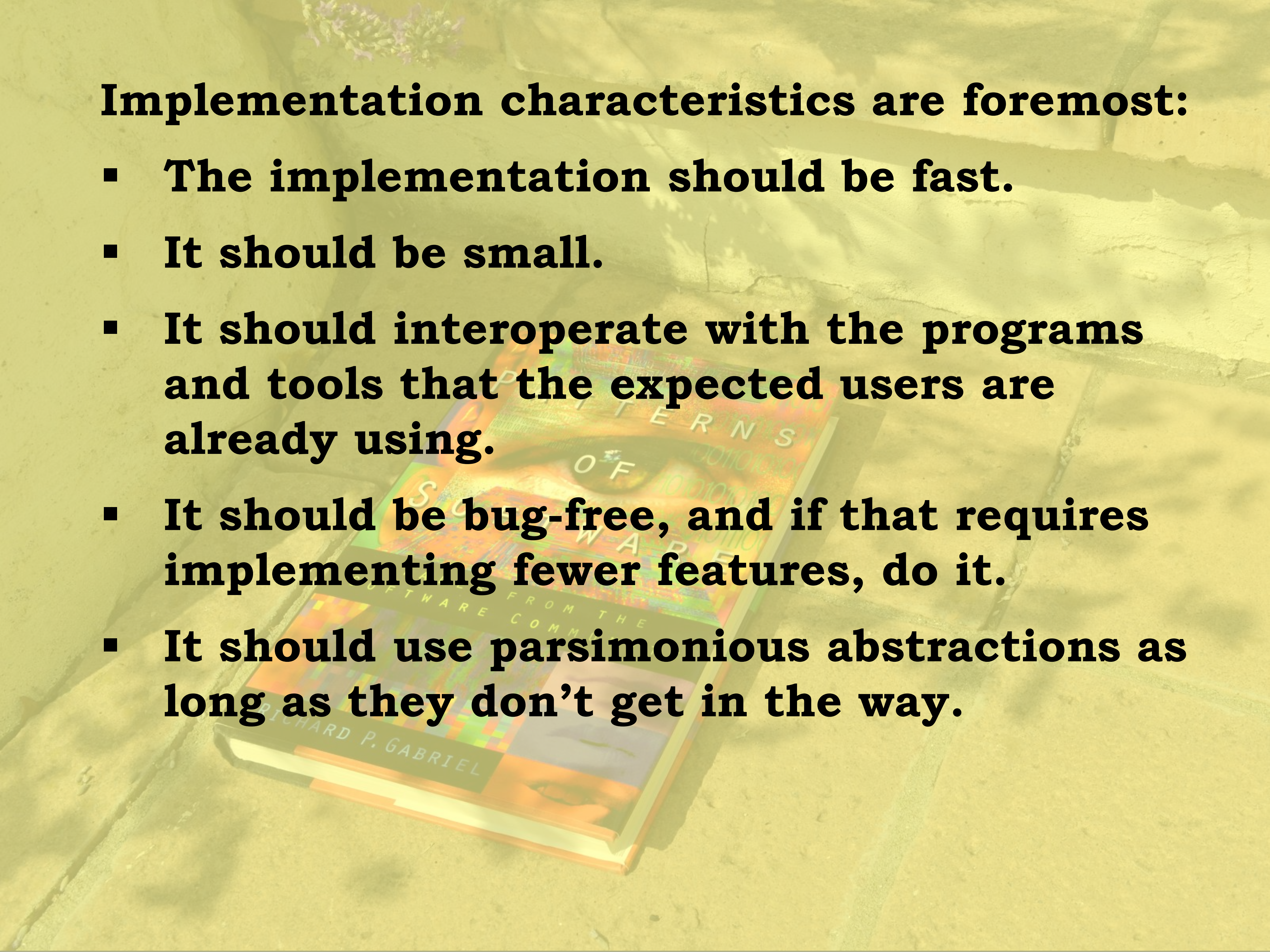


Here are the characteristics of a worse-is-better software design:

- ***Simplicity*: The design is simple in implementation. The interface should be simple, but anything adequate will do.**
- ***Completeness*: The design covers only necessary situations. Completeness can be sacrificed in favor of any other quality.**
- ***Correctness*: The design is correct in all observable aspects.**
- ***Consistency*: The design is consistent as far as it goes. Consistency is less of a problem because you always choose the smallest scope for the first implementation.**

Implementation characteristics are foremost:

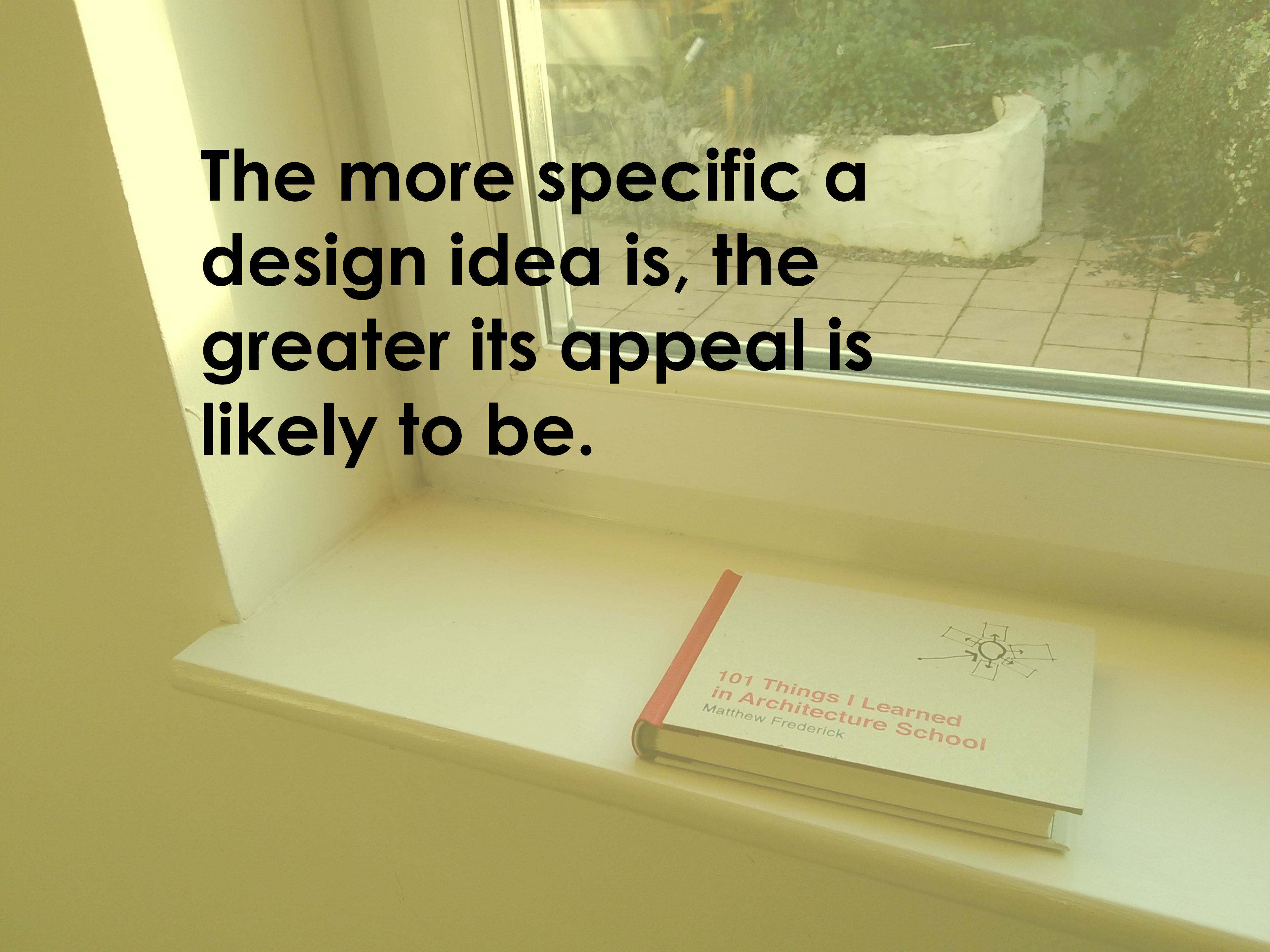
- The implementation should be fast.
- It should be small.
- It should interoperate with the programs and tools that the expected users are already using.
- It should be bug-free, and if that requires implementing fewer features, do it.
- It should use parsimonious abstractions as long as they don't get in the way.



THOS. SMITH & SONS
OF SALTLEY L9
1901

101 Things I Learned
in Architecture School
Matthew Frederick

The more specific a design idea is, the greater its appeal is likely to be.



I will contend that conceptual integrity is the most important consideration in system design.

Fred Brooks

It is better to have a system omit certain anomalous features and improvements, but to reflect one set of design ideas, than to have one that contains many good but independent and uncoordinated ideas.

Fred Brooks

$$\frac{\text{Interface}}{\text{Implementation}}$$

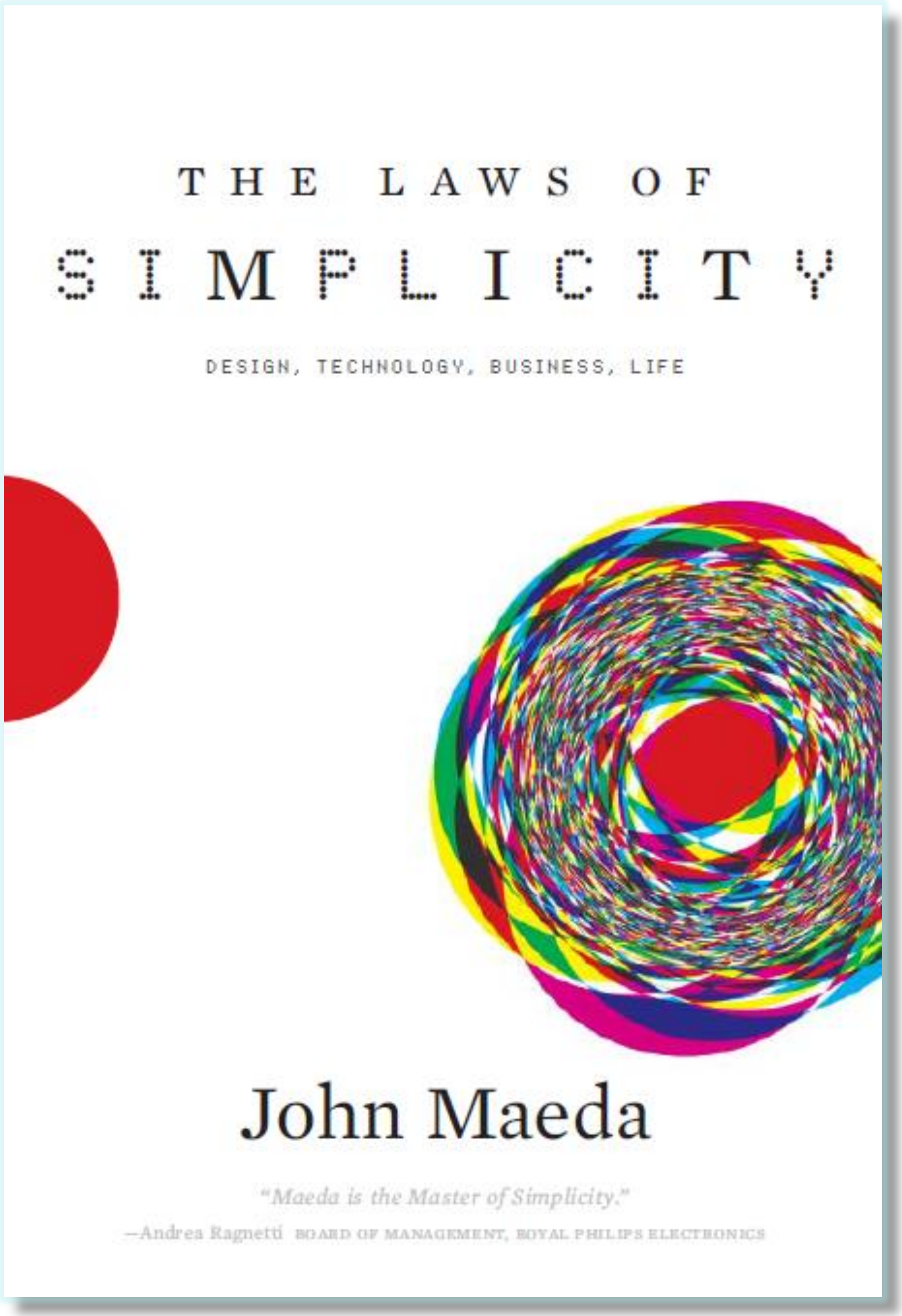
$$\frac{\text{Implementation}}{\text{Interface}}$$

Implementation

Interface

Aesthetics does not affect perceived usability, but degraded usability negatively affects perceived aesthetics. In other words, usability is more important than beauty.

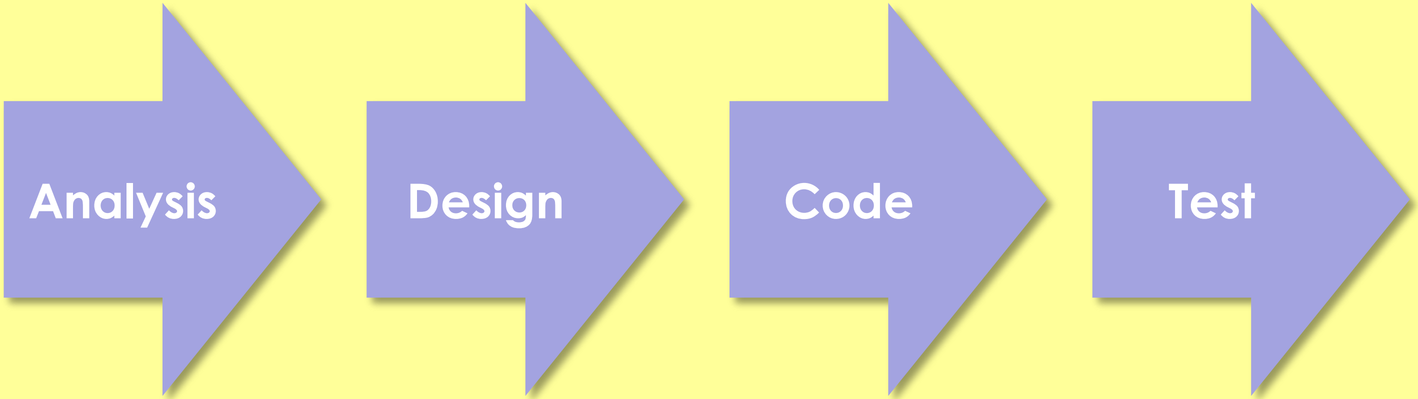
"Is Beautiful Usable, or Is It the Other Way Around?"
http://www.infoq.com/news/2012/05/Aesthetics-Usability


THE LAWS OF
SIMPLICITY
DESIGN, TECHNOLOGY, BUSINESS, LIFE
John Maeda
"Maeda is the Master of Simplicity."
—Andrea Ragnetti BOARD OF MANAGEMENT, ROYAL PHILIPS ELECTRONICS

Savings in time feel like simplicity

Uncertainty is an uncomfortable position. But certainty is an absurd one.

Voltaire

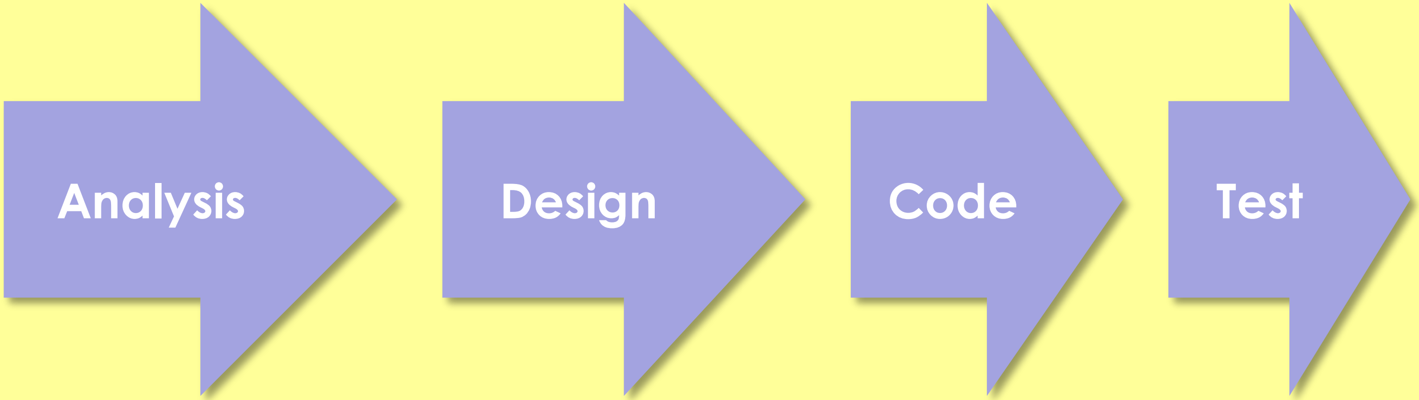


Analysis

Design

Code

Test

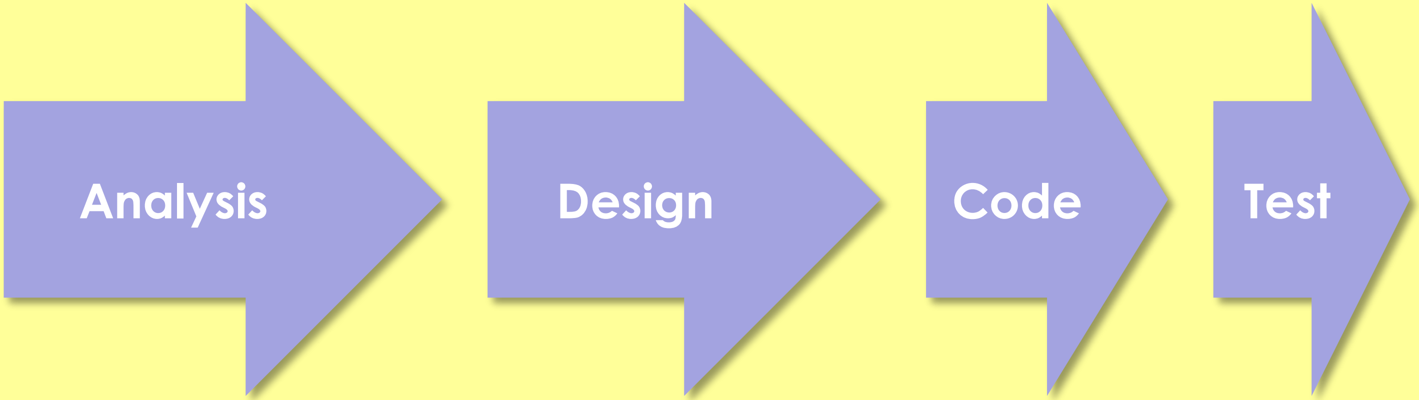


Analysis

Design

Code

Test

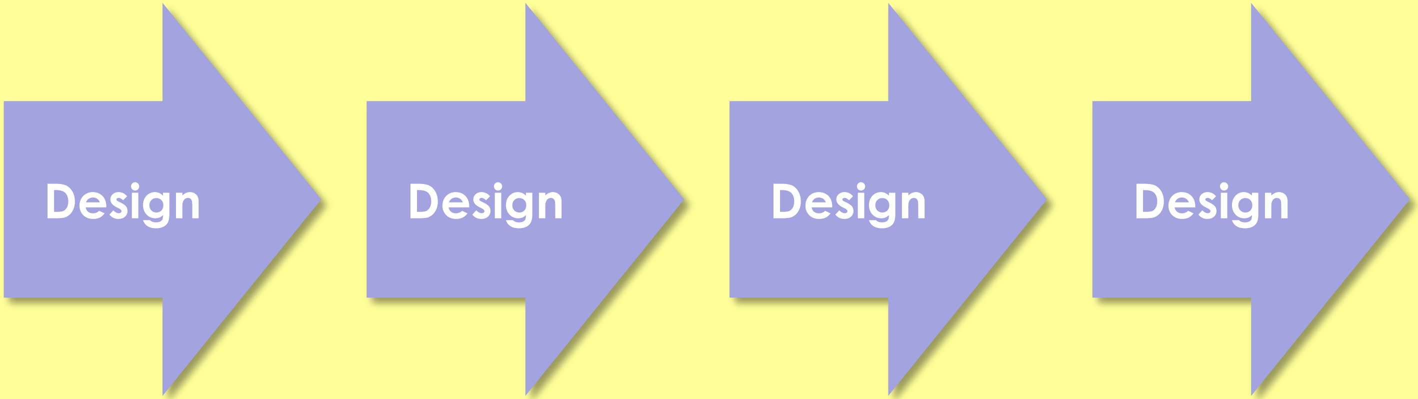


Analysis

Design

Code

Test

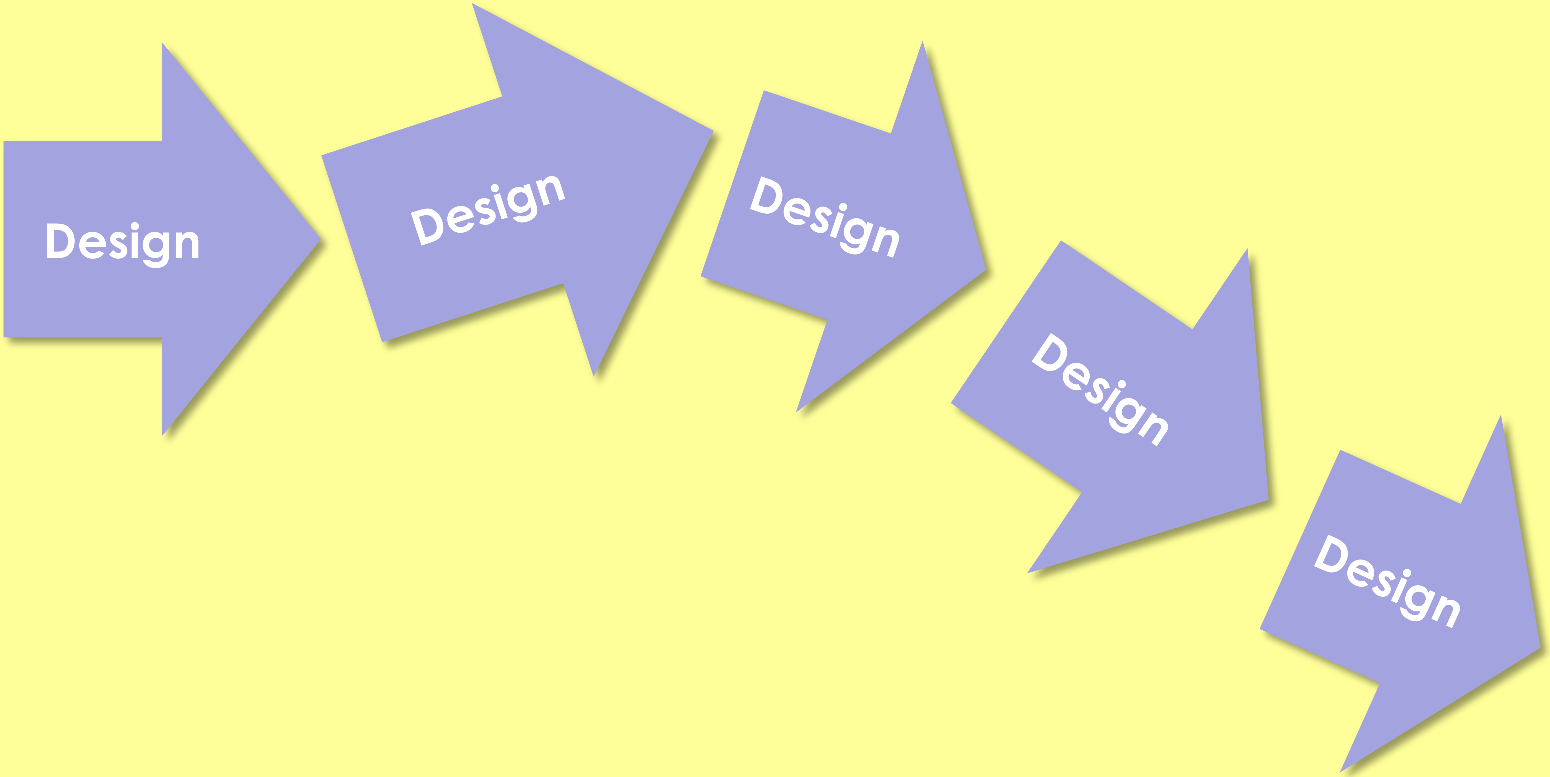


Design

Design

Design

Design



Design

Design

Design

Design

Design

101 Things I Learned
in Architecture School
Matthew Frederick

Properly gaining control of the design process tends to feel like one is *losing* control of the design process.

The classic essay on "worse is better" is either misunderstood or wrong.

Jim Waldo

Decide for yourselves.

Richard P Gabriel