

FORTUNE

*Landscape photography is the supreme proof of the photographer,
and often his supreme disappointment.*

— ANSEL ADAMS (19??)

*I made the arrowheads longer and stronger,
so that they will not disappear so easily on xerox copies.*

— DONALD E. KNUTH (199?)

*I had become thoroughly hooked on the subject
—constantly aware that I was supposed to be doing other things,
yet unable to resist mathematical beauty.*

— DONALD E. KNUTH (199?)

*Image analysts have a long educational battle to fight
in the radiological setting in order to bring the message
that 3D datasets acquired with anisotropies larger than [1 : 2]
are simply dismissive of the most fundamental concept of
digital signal processing: The Shannon Sampling Theorem.*

— ITK (199?)

*In fact, a particular pain in the neck
was that usually when they did tomography
they spaced the slices fairly wide apart,
so the Z resolution was much lower
than the X and Y resolutions.*

— AZRIEL ROSENFELD (1998)

*We want to have some theoretical basis for what we're doing.
We don't want a frivolous or sloppy or second-rate algorithm.
We don't want some other algorithmist to say, "You guys are morons".*

— ANDREI BRODER (2019)

*Computer programming is an art,
because it applies accumulated knowledge to the world,
because it requires skill and ingenuity,
and especially because it produces objects of beauty.*

— DONALD E. KNUTH (1974)

*Thus, for example, Donald Knuth took Chomsky's book
on structural linguistics with him on his honeymoon.
In spite of this Don is still married to Jill, 45 years later:
when you have dinner with the Knuths you talk more about quilting
and printing Lutheran bibles than programming,
but it all seems of a piece.*

— GRAHAM NELSON (2018)

*... a function of royal blood in the family of entire functions,
whose distinguished properties separate it
from its bourgeois brethren*

— Sir EDMUND WHITTAKER (1915)

*Aut inveniam viam
aut faciam*

— HANNIBAL (218 a.C.n.)

*By avoiding detailed proofs and analysis, the book will appeal
to those who wish to enrich their problem-solving arsenal.
The book is ideal for people who do not have a very deep
academic background in mathematics, and yet wish to use
mathematics for work or research.*

— DANIEL COHEN-OR (20??)

*We dedicate this book
To our fellow citizens
Who, for love of truth,
Take from their own wants
By taxes and gifts,
And now and then send forth
One of themselves
As dedicated servant,
To forward the search
In to the mysteries and marvelous simplicities
Of this strange and beautiful Universe,
Our home.*

— CHARLES W. MISNER, KIP S. THORNE, JOHN ARCHIBALD WHEELER (19??)

*For many years the theory of automata was developing rapidly
and solving problems that were ostensibly related to computers;
but real programmers could not care less about those theorems
because Turing machines were so different from real machines.*

— DONALD E. KNUTH (1971)

*If we make an unbiased examination of the accomplishments
made by mathematicians to the real world of computer programming,
we are forced to conclude that, so far,
the theory has actually done more harm than good.*

— DONALD E. KNUTH (1971)

Always be the worst guy in every band you're in.

— PAT METHENY (19??)

*The final algorithm of concern to us in this section is long division,
in which we want to divide $(m + n)$ -place integers by n -place integers.
Here the ordinary pencil-and-paper method involves a certain amount of
guesswork and ingenuity on the part of the person doing the division;
we must either eliminate this guesswork from the algorithm or
develop some theory to explain it more carefully.*

— DONALD E. KNUTH (19??)

*If we were to wait
for convergence proofs
and error estimates
for the new methods,
most of the computers now in use in technology and industry
would come grinding to a halt.*

— ROBERT D. RICHTMYER, K. W. MORTON (1957)

*On the other hand, it is part of the author's contention
that mathematics books ought to mention the fact
that a Taylor's series is often a very poor way
to compute a function.*

— GEORGE ELMER FORSYTHE (1970)

*Everyone has a plan
'till they get punched in the mouth*

— MIKE TYSON (19??)

*Choosing the right precision for a problem
where the choice matters
requires significant understanding
of floating-point computation.
If you don't have that understanding,
get advice,
take the time to learn,
or use double and hope for the best.*

— BJARNE STROUSTRUP (2013)

*I was saying the background does not satisfy
any mathematically or statistically simple models
and those are the only kinds
that we like to use in our papers
with all the equations in them.*

— AZRIEL ROSENFELD (1998)

*If an Error-Analysis exists,
it may be obvious,
or it may be obscure.
If it exists,
it could cost more to find and compute
than R is worth*

— WILLIAM KAHAN (2016)

*The 2011 Fukushima radioactive signal was
embedded in the shallow 2011 snow layers of the Mt. Ortles cores.
This result further suggests
that this event may be
a new glaciological time horizon
at a hemispheric scale,
although only in the short term,
due to the short half-life
of the radionuclides likely involved
such as ^{131}I .*

— PAOLO GABRIELLI et al. (2016)

*I used exponential running time algorithms
when linear alternatives existed,
because you can still raise venture capital for an app
that only does half of what it should do
before it crashes
and wedges your entire phone.*

— JAMES MICKENS (201?)

*At any rate,
when attacking a new problem
it is often wise to find some fairly obvious procedure
that works,
and then
try to improve upon it.*

— DONALD KNUTH (2013)

*The story goes
that Google engineers
had the idea to create
a language designed for their
large-scale applications
and started designing Go
while they were waiting
for their massive C++ projects
to compile.*

— GUILLAUME LE STUM, ANTONIO SCARAMUZZINO (2019)

*Ho perso quattro minuti
per l'entusiasmo dei tifosi
che pregherei di non lanciarmi più mazzi di fiori,
come hanno fatto in vetta al Sestriere,
provocandomi un incaglio al cambio,
poiché erano fiori legati con fil di ferro
e sono andati a incepparlo.*

— GINO BARTALI (1949)

*NASA engineers quipped
that no spacecraft could fly
until the mass of paper documenting its construction
and test
equalled that of the flight hardware.*

— JOHN WALKER (2019)

*I also got to spend a month in Japan
designing the first electronic-shutter IC
for a single-lens-reflex camera for Canon.
This circuit took the logarithm of three inputs
-film speed, aperture, and light intensity-
summed the result, stored it while the mirror went up,
and then took the antilogarithm to generate the shutter speed.
It used about 20 transistors in total
and was probably my most elegant design.
Nowadays,
this is done with about half a million transistors*

*in a microcontroller-
how prosaic.*

— DAVE FULLAGAR (2007)

*It's just that I'm not worthy
of the depths of TAOCP.
I've read the preface of Volume 1 three or four times,
and I've tried to imagine how it would feel to complete
the entire series.
I would disconnect from the Internet for a few months
and move alone to a cabin on a Wyoming mountaintop
with a ream of paper,
a couple boxes of pencils,
TAOCP,
a few supplementary math books,
and a 90 day supply of Adderall.
I would take long hikes in the mountains,
thinking deeply about the fundamental algorithms.
No laptop, no wifi, no electricity -
these are all distractions.
After sunset I'd read and work problem sets by candlelight,
and my dreams would be joyrides
through a universe of harmonic numbers,
binomial coefficients,
and nonlinear data structures.*

— CARL TASHIAN (2016)

*I gave a presentation at a conference
when I was a PhD student,
and during a break
Knuth
came up to me.
My heart was pounding with excitement
at the idea he was interested in my research.
Then he opened his mouth and asked
"Do you know where the toilets are?"
(in fact, he actually used the word "john"
rather than "toilet").
Never before have I felt such disappointment,
until I realised that out of all the people at the conference,
he thought I was most likely to be the expert
on something (albeit where the toilets are).*

— SPRINGY (2019)

*read until you get to math you don't understand,
then skip it and find the next section
you can understand*

— NICK DROZD (2019)

*I remember reading of a completion
for a paper on resolution of singularities of surface;
Castelnuovo and Enriques were in the committee.
Beppo Levi presented his famous paper
on the resolution of singularities for surfaces;*

*Enriques asked him for a couple of examples
 and was convinced;
 Castelnuovo was not.
 The discussion got heated.
 Enriques exclaimed
 "I am ready to cut my head if this does not work"
 and Castelnuovo replied
 "I don't think that would prove it either".*
 — ANGELO VISTOLI (2010)

*The three dots ". . ." are called an ellipsis.
 They suggest a pattern
 that is supposed to be obvious to the reader.
 But obviousness is in the mind of the beholder,
 and may not align with the intentions of the author.*
 — HARRY LEWIS, RACHEL ZAX (2019)

*I wish I could send a man from
 Fortnum and Mason's
 out to you
 with a chunk of mortadella.*
 — HENRY JAMES (18??)

*Education is perceived as a cost
 more than an investment.
 It is easy to estimate the cost of training people.
 How do you estimate the value
 of the bugs that you didn't have,
 thanks to those well-trained people?
 We are in a situation where
 the cost is visible,
 and the benefit hidden.
 Unfortunately,
 most people think that
 if they don't see the benefit,
 there is no benefit at all.*
 — J-P. ROSEN (2009)

*Software development practices are designed
 to mitigate the problems caused
 by the inherent complexity of writing computer programs.
 Unfortunately,
 many methodologies veer off
 into dogma,
 bean counting,
 or both.*
 — GELMAN et al. (2020)