無

**un-asking questions**

machinae ex deo – 2024 issue 4

Prayers go unanswered, questions get questioned.

Christ calls us to μετάνοια - metanoia - change of mind.
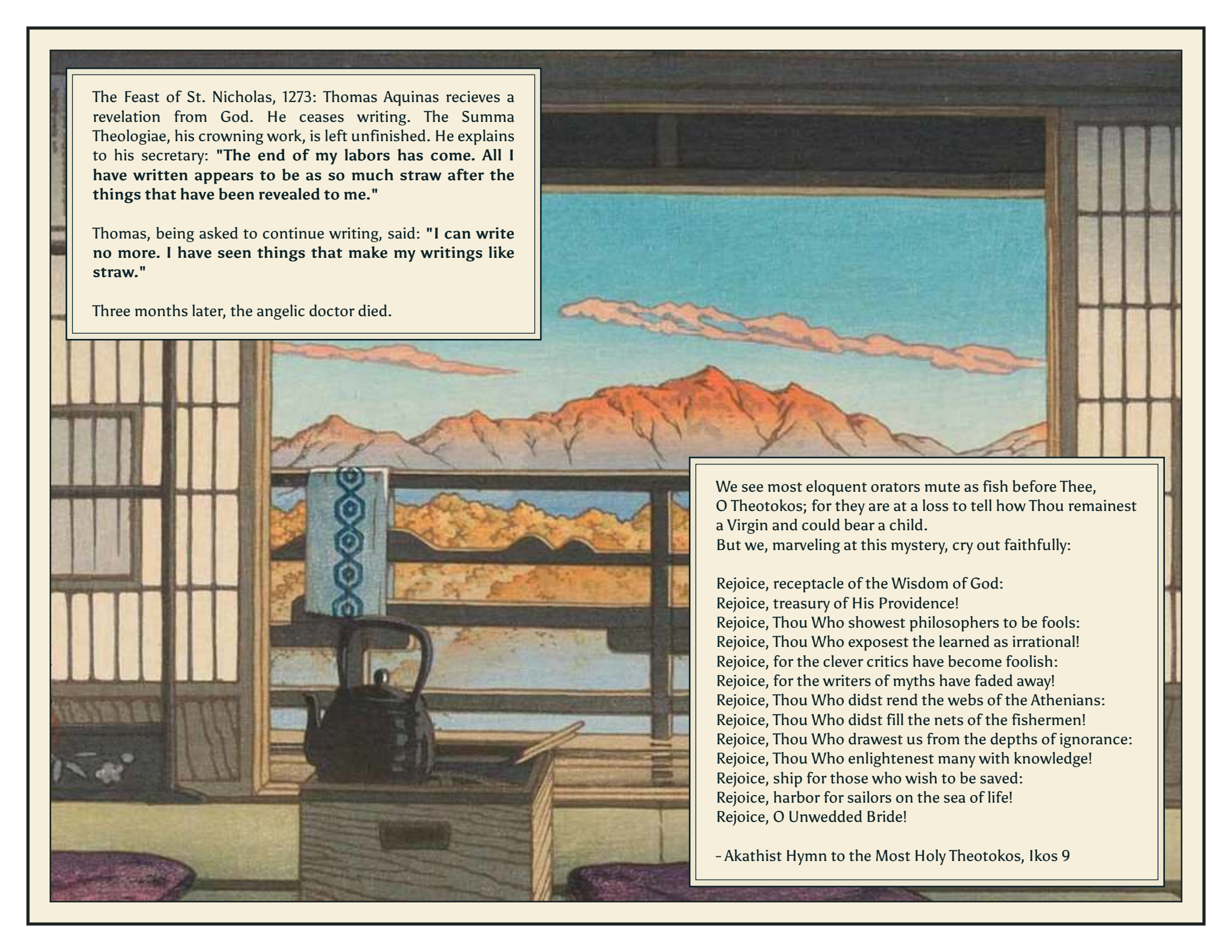
Such a change is not simply filling in blank spaces of our mind, or erasing filled in portions. Such a change is often deep and profound - structural. Remove the construct entirely - and replace it with something new.

**Re-ask the question.**
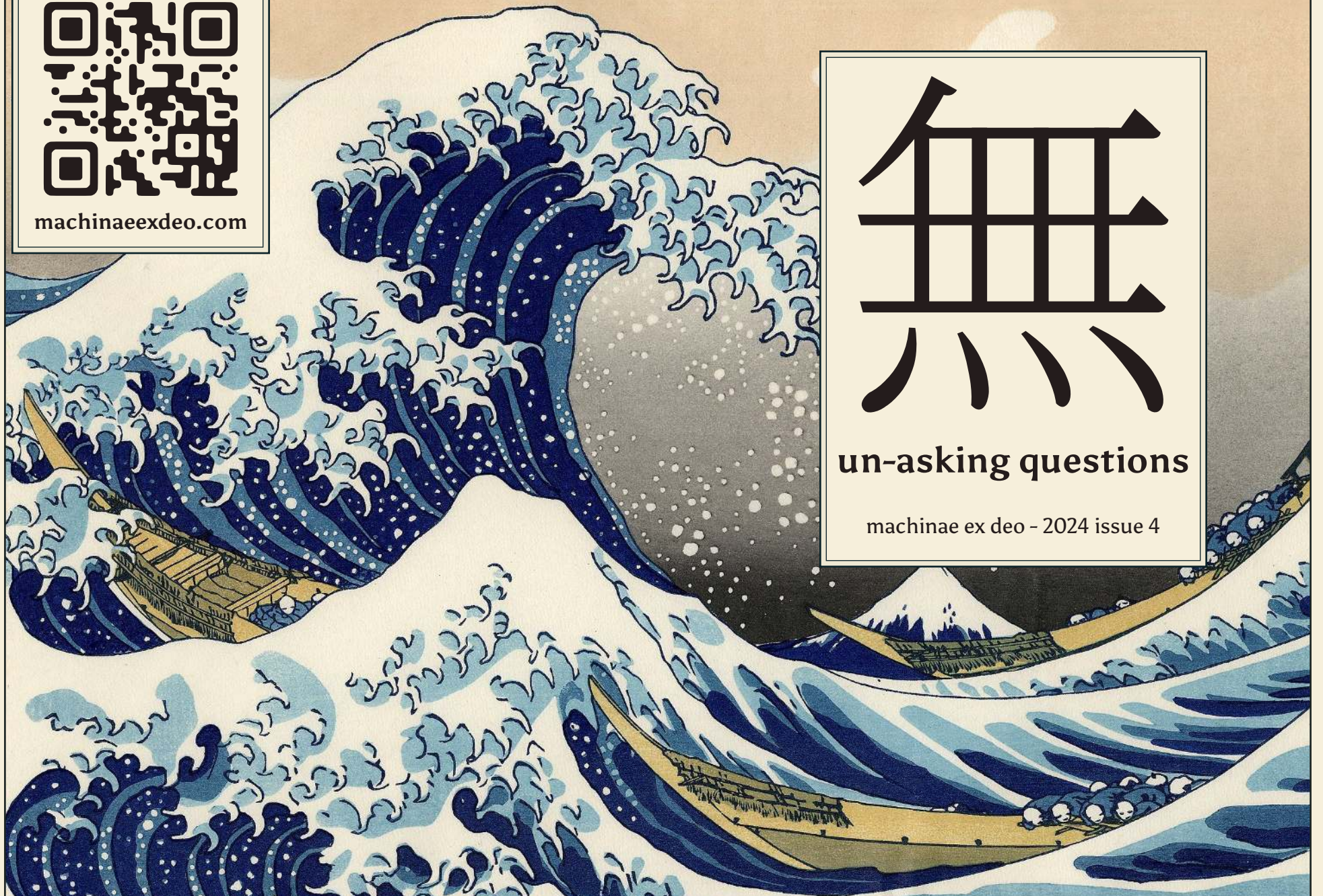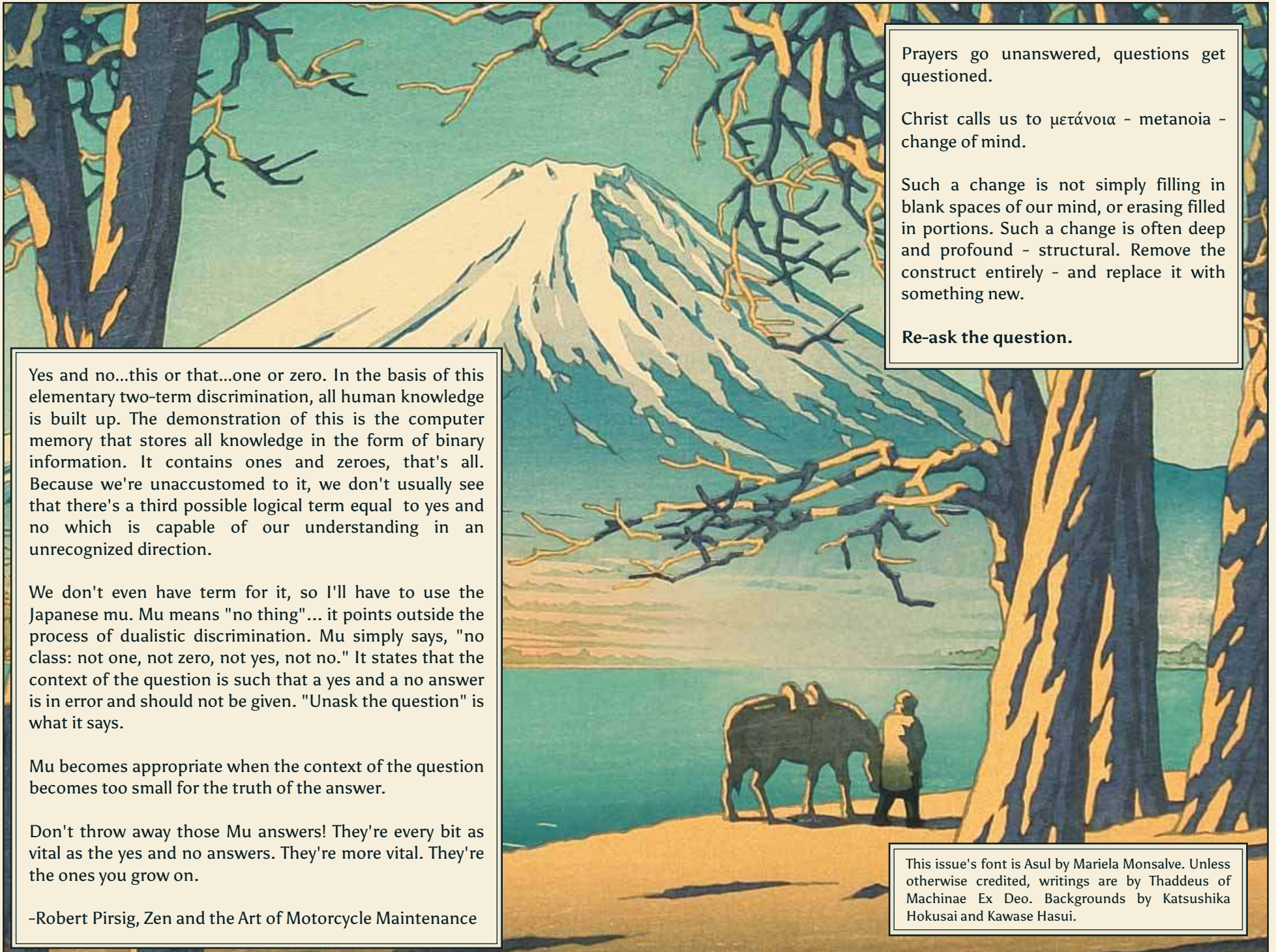
Yes and no...this or that...one or zero. In the basis of this elementary two-term discrimination, all human knowledge is built up. The demonstration of this is the computer memory that stores all knowledge in the form of binary information. It contains ones and zeroes, that's all. Because we're unaccustomed to it, we don't usually see that there's a third possible logical term equal to yes and no which is capable of our understanding in an unrecognized direction.

We don't even have term for it, so I'll have to use the Japanese mu. Mu means "no thing"... it points outside the process of dualistic discrimination. Mu simply says, "no class: not one, not zero, not yes, not no." It states that the context of the question is such that a yes and a no answer is in error and should not be given. "Unask the question" is what it says.

Mu becomes appropriate when the context of the question becomes too small for the truth of the answer.

Don't throw away those Mu answers! They're every bit as vital as the yes and no answers. They're more vital. They're the ones you grow on.

-Robert Pirsig, Zen and the Art of Motorcycle Maintenance

The Feast of St. Nicholas, 1273: Thomas Aquinas recieves a revelation from God. He ceases writing. The Summa Theologiae, his crowning work, is left unfinished. He explains to his secretary: **"The end of my labors has come. All I have written appears to be as so much straw after the things that have been revealed to me."**
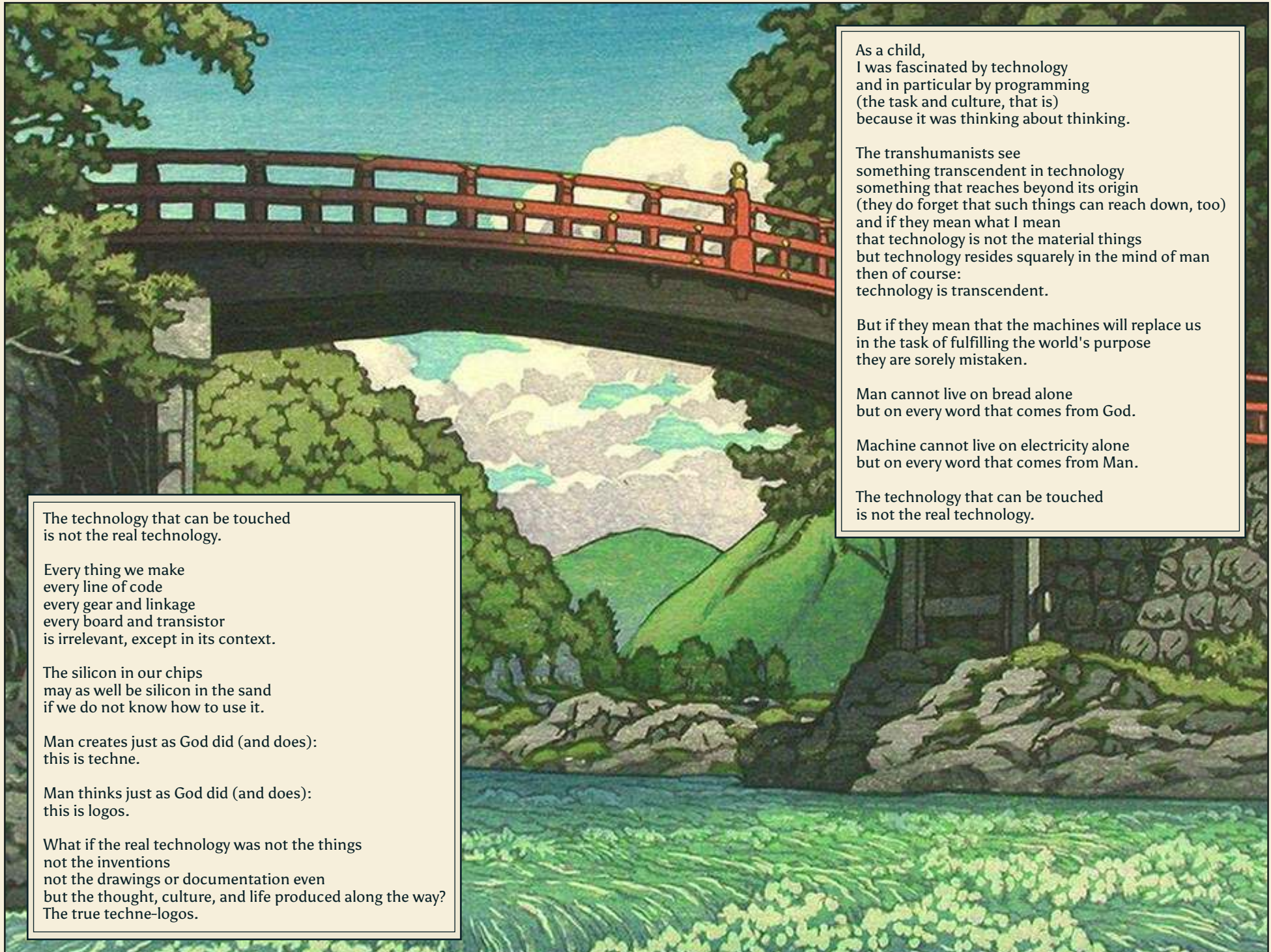
Thomas, being asked to continue writing, said: **"I can write no more. I have seen things that make my writings like straw."**

Three months later, the angelic doctor died.

We see most eloquent orators mute as fish before Thee,
O Theotokos; for they are at a loss to tell how Thou remainest
a Virgin and could bear a child.
But we, marveling at this mystery, cry out faithfully:

Rejoice, receptacle of the Wisdom of God:
Rejoice, treasury of His Providence!
Rejoice, Thou Who showest philosophers to be fools:
Rejoice, Thou Who exposest the learned as irrational!
Rejoice, for the clever critics have become foolish:
Rejoice, for the writers of myths have faded away!
Rejoice, Thou Who didst rend the webs of the Athenians:
Rejoice, Thou Who didst fill the nets of the fishermen!
Rejoice, Thou Who drawest us from the depths of ignorance:
Rejoice, Thou Who enlightenest many with knowledge!
Rejoice, ship for those who wish to be saved:
Rejoice, harbor for sailors on the sea of life!
Rejoice, O Unwedded Bride!

- Akathist Hymn to the Most Holy Theotokos, Ikos 9

As a child,
I was fascinated by technology
and in particular by programming
(the task and culture, that is)
because it was thinking about thinking.

The transhumanists see
something transcendent in technology
something that reaches beyond its origin
(they do forget that such things can reach down, too)
and if they mean what I mean
that technology is not the material things
but technology resides squarely in the mind of man
then of course:
technology is transcendent.

But if they mean that the machines will replace us
in the task of fulfilling the world's purpose
they are sorely mistaken.

Man cannot live on bread alone
but on every word that comes from God.

Machine cannot live on electricity alone
but on every word that comes from Man.

The technology that can be touched
is not the real technology.

The technology that can be touched
is not the real technology.

Every thing we make
every line of code
every gear and linkage
every board and transistor
is irrelevant, except in its context.

The silicon in our chips
may as well be silicon in the sand
if we do not know how to use it.

Man creates just as God did (and does):
this is techne.

Man thinks just as God did (and does):
this is logos.

What if the real technology was not the things
not the inventions
not the drawings or documentation even
but the thought, culture, and life produced along the way?
The true techne-logos.

I love Geometric Design and Tolerancing. It's such a beautiful metanoia above linear dimensioning schemes. It thinks about things in a fundamentally different way.

But most people hate it. And so most people want to use it like linear dimensioning schemes: just another way to prescribe dimensions that the boss-man says we need to do. But GD&T does not answer the same question that linear dimensioning does - or at least, it answers questions higher than linear dimensioning does. Take for example these two drawings of the same parts meant to fit together. On the left, the part is drawn linearly. On the right, with GD&T callouts.

The left is pretty easy to understand at first sight. But once we get into tolerancing - it becomes rigid and tyrranical, and even though it is verbose, it is ultimately less helpful in determining how accurate one must be. The advent of computerized machining further reduces the need for this verbosity.

Many designers make drawings out of necessity to get parts made - but forget what they are doing, and why they are doing it. They ask questions about "how precise does this need to be?", without asking the more important questions such as: "In what way does this need to be precise? What does this need to be precise relative to?"
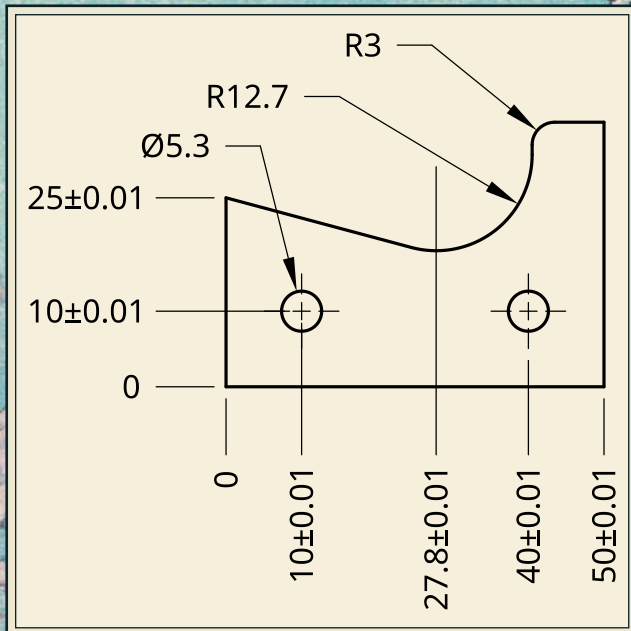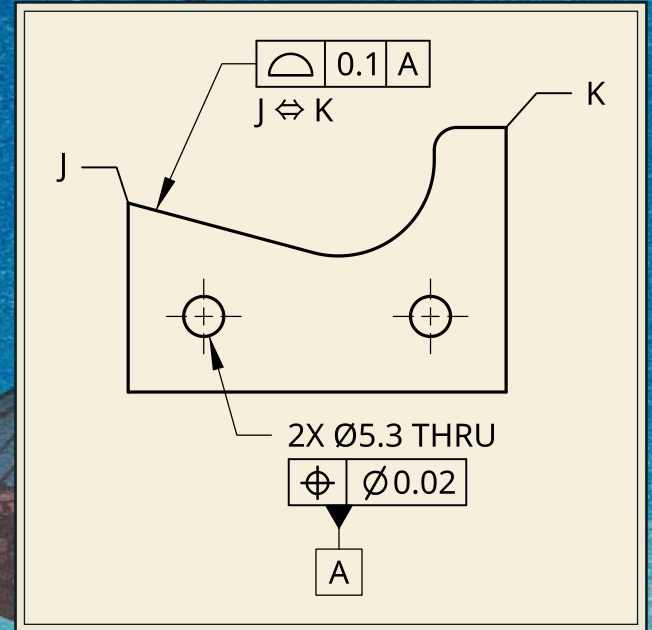
A drawing in this fashion, using GD&T, not only increases readability, but conveys a very different message. This drawing better conveys the relationship between parts. It is useful to make the part, and readily tied back and checked by the part's function in the larger system.

The holes are called out as a pattern - already, they have a relationship to themselves, and are dimensioned accordingly (with a 0.02 tolerance zone). These holes are then deemed to be datum A.

The top surface (from J to K) is dimensioned not with particularities, but as a zone. This zone is 0.1 in width, and is not with respect to some arbitrary surface, but with respect to the mounting holes (datum A). Now it is clear to see what sort of precision is required to make this surface - and that precision is in relationship to something that matters.

Moses, telling Pharoah that the Israelites take their livestock with them, insists: "We know not what must be offered, till we come to the very place." [Exodus 10:26]. We too, until we come to the point of revelation, the point of application, cannot answer what our design must be.

Another way of this I have is: only say (or at least, stand by) what you really, truly mean. Only dimension what you truly care about. Only write requirements that matter. Don't jump to making requirements about a 2 horsepower motor or 13 inch wide belt if all you really know you need is to move 2000 bushels in an hour. The details follow the overarching design.

Sometimes assertions must be made in order to learn. That's OK - that's how we learn. Assert with humility.

This principle of not-yes, not-no may serve us well in how we approach design, especially in the early stages. We should not pretend to know the answers.

"Let the ambiguity in your design communicate the ambiguity in your thought," says Mark of Full Stack Theology.

Our culture - especially commercial culture - abhors uncertainty. The cult of professionalism insists either to find "the right thing", or to fake-it-til-you-make-it. If the answer is unclear, unknown, or even unknowable, these approaches are an affront to humility.

To come forth and say: "I do not fully comprehend the end purpose", is bold and admirable.