

Hi Matt,

Thanks for your thoughtful message. It's very helpful. I was particularly intrigued by your statement that the simplest solutions to problems in your work were often the most irrational ones. Is there a specific example of this that you keep in mind?

It's interesting because in math simplicity is typically taken as a kind of synonym for rationality. When someone says simple they don't usually mean that the problem or object of study is itself simple (the objects of math almost invariably seem quite strange and mysterious), but rather that somebody has discovered a path starting from simple principles leading to a complex conclusion, or, starting from some concrete situation has ascended up to a more abstract viewpoint, using only the most "rational" or "necessary" steps along the way. "Simplicity" is a series of well placed guideposts leading from the things closest to us out into the unknown.

While this account is appealing, I was interested in the idea that there might be other kinds of simplicity in math, ones that might fall more in line with aesthetic considerations in art. It does seem true that in art a combination of simplicity and irrationality is preferable to something which is simple alone. Your idea of expediency interested me in this regard.

It reminded me a little of the status of examples in math. Generally speaking, examples are denigrated as being expedients for the thing itself (theorems), or as crutches for the mind to hold onto until it can walk on its own. There is a well-known quote by the logician Shelah to the effect that "all examples are misleading, with the real line being only the least misleading example".

However, apart from any use in proving theorems or developing intuition, examples also provide an experience, one which is at least partly aesthetic, and which is in a sense similar to our appreciation of art or nature. There is a mixture of the necessary (given these conditions such and such must hold) together with the unnecessary (all of the other properties that just happen to be true of the particular case) which is pleasant to apprehend, especially in the case when these elements are not easily reconcilable.

I guess it is a well-known trope in painting to view a painter's work as a series of examples (something like Mondrian or Morandi), but it does give some explanation to the power of expediency. The balance of necessity and the merely conventional can be recognized, but not easily understood.

Anyways, I'm rambling now and have to go catch the plane. Ellen and I would love to look at your studio when I get back and it would be fun to try to hammer out something for the press release. Thanks again for your response.

Spencer