

The Object Strikes Back: An interview with Graham Harman

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Abstract

At a time when many design professionals concern themselves with designing interactions, experiences, and services, it seems timely to reconsider the role of objects in design. This interview with philosopher Graham Harman offers a summary of his thinking about objects, using it to reconsider their role in design. Strongly influenced by Martin Heidegger and Bruno Latour, Harman's philosophy is object-oriented in that it treats objects as real but with hidden depths. In the interview Harman describes how objects have been treated in philosophy and what his approach does that is different; ultimately, his ideas problematize the notion that design is human-centered.

Keywords

Objects, ontology, metaphysics, Graham Harman, object-oriented philosophy

Introduction

Objects are central to design. Designers know how to make them, curators organize them in museums, journalists put pictures of them in their magazines and web pages, design historians and researchers describe how they came to be and what they do once they start circulating. A materially-minded anthropologist might argue that objects are central to *any* field of human activity. But design, along with only a handful of other specialist disciplines or fields of practice, has a privileged relationship with objects. As givers or shapers of form, designers integrate their speculations about users and objects and the social practices which they support. Designers consider material and other constraints, producing the specifications, plans and models for future artifacts that in turn shape future practices and are involved in bringing diverse others into these activities.

Given this, we might expect an extensive literature available to students of design to help them understand what objects are, what they do and the interplay between objects, designers and others. The last two decades of academic design studies suggest otherwise; objects have been disappearing while other kinds of

entity appear more and more in the cosmologies of designers. With the invention of “the user” came other terms – human-centered design, users’ needs and so on – that focus on the human side of the human-object relation. Such studies are concerned with experiences and intangible services, rather than products. Designers’ practices dematerialized into something called “design thinking.” Interest in the objectness of objects has only recently returned. Arguments to reduce materials intensity to create more sustainable products (eg. Tonkinwise 2003) or attentiveness to “thing theory” (eg. Boradkar 2010; Binder et al. 2011) make it timely to reconsider objects in design.

This interview considers these developments from the perspective of the object-oriented philosophy of Graham Harman. Having studied Heidegger for his dissertation, later reworked and published as *Tool-Being* (2002), Harman then explored the work of French sociologist Bruno Latour. Harman’s excitement on reading Latour is evident in his first paper on the sociologist (published in Harman 2010). Moreover, like Latour, Harman writes in a lively, accessible way. This is theoretical work that pokes the reader and makes her laugh out loud. Here was someone who, for Harman, was doing new things in metaphysics, in particular disabling the Kantian stranglehold of the human over the non-human. In his full-length treatment of Latour, *Prince of Networks* (2009) Harman takes this work as a kind of metaphysics. While he relishes much of Latour’s work, in particular the sociologist’s attention to things and stuff, however mundane, Harman concludes with an analysis of where for him, this work stops short. Latour’s failing, he says, is not allowing objects to have qualities or relations *other* than the ones they have right now. That is, it does not explain change.

Harman articulates clearly how several theoretical positions tend to ignore the material objectness of things, or make them ultimately serve human purposes. Either objects are real outside of us, and that’s all we need to know about them, or, what matters about objects is our ideas about them. Harman calls himself a realist. For him, the object has qualities *apart* from its relations, in contrast to Actor Network Theory. The arguments Harman presents in the concluding chapter of *The Prince of Networks* were subsequently developed in *The Quadruple Object* (2010). Here he presents a fuller account of the fourfold which is his current thinking on an object-oriented philosophy. This “speculative realism” argues that objects have their own qualities and relations.

Harman’s position is immediately attractive for those of us working in design. It allows us to reconsider the assumption of human-centeredness in recent design thinking. Is design primarily concerned with creating meanings for things as Krippendorff (2006) and Verganti (2009) argue, or is it possible to think about design as stuff having relations with other stuff, in which humans are not always implicated?

In the interview that follows I explore what Harman’s work brings to research about design. I met Harman in person when he was passing through London from Cairo where he is associate provost for research administration and professor in the Department of Philosophy at the American University. I suggested we walk through Highgate Cemetery in north London, to visit the

grave of Karl Marx, another philosopher who thought about objects, although in quite different ways. That initial rain-splattered conversation became the basis of the notes for this interview which was conducted via email. Although he is increasingly interested in art, Harman said he was relatively unfamiliar with design. What follows is also shaped by my presenting a particular account of design that might find resonances with Harman's work.

Undermining the Object

Lucy Kimbell: Can we start with a kind of *Metaphysics for Dummies*? How have philosophers thought about objects? What have been the important contributions and what for you are their weaknesses?

Graham Harman: At the origin of Greek philosophy, the program was to *destroy* objects. The first Western philosophers were the pre-Socratic thinkers. Against common sense, which believes in things like horses, trees, ships, and cities, the pre-Socratics tried to show that all these things are built of something more fundamental. This also made them the first scientists, since this is what science does as well.

Some of the pre-Socratics reduced all objects to a tinier physical element: Thales said everything is made of water; Anaximenes said it must be air; Heraclitus said fire. They all set the stage for Empedocles, who claimed that there were four *separate* physical elements: air, earth, fire, and water, joined by love and separated by hate. Other pre-Socratic philosophers held instead that reality was or should be a giant indeterminate lump, the *apeiron*, from which all specific objects were derivative. Anaximander said that the *apeiron* will exist in the future once justice has destroyed all opposites— an idea that influenced our Highgate Cemetery friend Karl Marx, who studied these early Greek thinkers diligently. Parmenides said that the *apeiron* (which he called “Being” instead) already exists, and only our delusional senses and opinions make us think that many different objects exist. Then there were the philosophers who said that this *apeiron* existed in the past but was destroyed: Pythagoras said that the *apeiron* inhaled Void, which broke it into smaller pieces; Anaxagoras said that the *apeiron* spun so rapidly under the control of a powerful Mind that it broke into fragments.

We might think these theories sound quaint and outdated, but they are still with us today. Mainstream scientific materialists still think we can reduce all objects to their physical (or sometimes mathematical) micro-components. In continental philosophy we have the followers of Deleuze and Simondon, who prefer the “pre-individual” realm over any actual objects, and this is the obvious descendant of the *apeiron* theory of the world. I call these theories “undermining” philosophies, because they say that objects are too shallow to be real. What is real for such philosophies are the tiny elements or the quasi-unified lump deeper than all individual things. The problem with such theories is that they do not allow for the emergent power of larger entities. The powers of a horse or tree are something quite different from the powers of the mini-chemicals of which these objects are made. For example, you can remove quite a large number of atoms

from a horse without there being any difference in the horse. Undermining philosophies fail to recognize the autonomy and power of objects at many different scales other than the ultra-tiny or ultra-basic one.

But there is also what I call “overmining” philosophies, a word coined by analogy with the existing word undermining. (My French translator had a devil of a time with this term, which only works well in English.) Overminers say not that objects are too shallow to be real, but that they are too *deep* to be real, and this is an even more common position in our time. Objects, they say, are useless fictions, or at least forever unverifiable. All that is real are the contents of consciousness, the constructions made by society, the workings of language– or relations, effects, and events more generally. Or perhaps what we call “objects” are merely “bundles of qualities” (David Hume). The problem with these theories is that they fail to explain why anything would ever change. If you or I are not autonomous objects, but fully determined by our current socio-linguistic context and our current sum total of relations with all other beings, then there is no reason why either of us would ever change or develop in any way. And the same goes for inanimate objects. Unless there is some excess or surplus in objects that is currently unexpressed in the world, there would be no reason for anything ever to become different from what it is right now. The world would be exhaustively deployed in each moment, with nothing hidden from anything else and nothing capable of inducing change.

Plato was the first the overminer. For him, objects were tainted by their status as base physical matter. What is primarily real are the forms, which exist in some non-worldly place, and which can be shared by many different things: all strong things partake in the form of strength, all horses in the perfect form of the horse, and so forth.

The first person to criticize both kinds of theories was Aristotle, Plato’s great and rebellious student. In Aristotle’s *Metaphysics*, one of the greatest books of philosophy ever written, we see him fighting both the pre-Socratic philosophers and his (recently dead) teacher Plato on precisely these issues. For Aristotle, the primary topic of philosophy is individual things, and in this way he becomes the first object-oriented philosopher. Whenever objects have enjoyed a resurgence throughout the history of philosophy, it has generally been due to an Aristotelian influence.

Today we are at one of those moments when Aristotle’s influence (at least in continental philosophy) is at its lowest. He is considered boring, middle-aged, a bit pedantic, and so forth. But what I find when I read his books is not just one of the most powerful minds in human history, but also someone with a rather bizarre and sometimes avant-garde sense of humor that resonates with us today. I expect a resurgence of interest in Aristotle to go along with a resurgence of interest in objects in philosophy; the two will go hand in hand.

The main problem with Aristotle’s theory of objects, and with that of most of his successors, is that he is too committed to the idea of objects as what exists *by nature*: or “natural kinds,” as some philosophers call them. This is why he has

little respect for compound entities such as machines, armies, clubs and associations, flocks of animals and piles of sand, and so forth. Perhaps not *all* of these things are genuine objects (just putting things next to one another does not make them one thing) but many of them are. On the bright side, at least Aristotle abandoned the assumption of his predecessors that nothing can be the ultimate substance unless it is *indestructible*. The pre-Socratics and Plato assumed this must be true, but Aristotle knew that horses and trees could be destroyed, yet still be the ultimate reality.

LK: I think many designers would say they have a special relationship to objects. Donald Schön (1983) talks of materials and drawings “speaking back” to designers, which echoes Karen Barad (2007) saying we can’t ignore how the universe “kicks back”. Designers have a sense that materials, tools, and their drawings, prototypes and other arrangements of things do stuff in the world, even if they can’t explain it well. Your work seems to offer a way to think about this.

GH: Here Martin Heidegger has much to tell us. His philosophy was born as a reaction to the school of which he was a member: phenomenology. Edmund Husserl had founded phenomenology around 1900 as an effort to prevent the encroachment of the natural sciences on philosophy. Husserl’s strategy was to say things like: “if I hear a door slam, then I hear a door slam, and this experience must be described in all its subtlety; to explain this experience with a scientific theory of sound waves and eardrum vibrations is derivative, since all we encounter directly is the experience of the door slamming.” It was a profoundly anti-reductive strategy, but also an excessively idealist one, since it imprisoned us in the sphere of human consciousness. Even today phenomenologists deny this, claiming that Husserl is “beyond” the realist/idealist distinction, but they are simply wrong. Husserl was a flat-out idealist, no question about it. (He was still a philosopher of objects *within* this ideal realm, which makes him quite different from Berkeley, Hegel, and others, but that’s a story for another occasion.)

Heidegger sensed this idealism and completely reversed it. For it is not the case that we usually encounter things as phenomena in consciousness. For the most part, we are unconsciously *using* them, taking them for granted silently and invisibly. Objects can break, creating surprises for us. Objects “kick back,” as you put it, against our perceptions and our exertions. My biggest objection to Heidegger is that he does not let objects do this to each other as well. It’s always a question for him of how objects kick back *against humans*, and in this respect he remains within the philosophical horizon of Immanuel Kant (1724-1804), probably the greatest philosopher since Ancient Greece. For Kant, philosophy talks only about the human-world correlate, not about object-object interactions, which can never be known. Against this, I agree with Whitehead that human-object interactions are just a special case of object-object interactions more generally.

But to return to your question of whether design has a special relationship to objects, I would guess that a certain number of fields have a special relationship

of this sort, and I doubt design is uniquely privileged in this respect. Any field of human inquiry that needs to take the real and autonomous properties of entities seriously will have such a special status. Military science, for instance, which is not a popular discipline among intellectuals, must take objects into account in a special way: rivers, railway junctions, and the new moon are all forces to reckon with for the military commander in a way that is not always true for semiotics.

I suppose I'd put it this way: all human activity and inquiry deals with objects, but in some fields this relationship is so strong that there can never be any temptation of idealism, and I suppose design would be a good example of this. Though while visiting New York recently, I was surprised at the vehement anthropocentrism of a few designers I encountered.

Speculative Realism: As Strange As Science Fiction?

LK: How important is the “speculative” in your speculative realism? Designers are intensely concerned with speculation in the sense of imagining and proposing new products, services, and more recently, policies and behaviors. Herbert Simon (1996) described all the professions including computer science, management, medicine and design as concerned with how things “ought to be”. At the point of sketching, or giving form to something new, it's impossible to know or fully imagine what the result or impact might be. What helps you think about how unknowable futures take shape?

GH: The adjective “speculative” was added to “speculative realism” because realism is usually viewed as a boring enforcer's philosophy that merely slaps down the excesses of wildly imaginative people. Creative thinkers invent wonderful new worlds, and then supposedly the realist comes along and tells them to shut up and face reality: there are really two hands in front of your face, a table in the center of the room, a cat sleeping on the mat, and that's all. Wake up!

But what if reality were far weirder than we ever believed, and what if realism became the name for a philosophy as strange as science fiction? In my philosophy, for example, real objects withdraw into private vacuums and make only indirect contact through metaphorical signals to one another, which is not exactly your grandfather's realism. Another speculative realist, Quentin Meillassoux in Paris, has a philosophy every bit as strange as mine: for Meillassoux the laws of nature can change at any moment for no reason whatever. And since there is no longer any probability or improbability about the changes in these laws, he recommends that we hope for the sudden appearance of a virtual god who does not yet exist but might exist in the future. This god would resurrect the dead and redeem their suffering. It's not as crazy as it sounds; he has some pretty solid arguments for this, which you can read about in my new book *Quentin Meillassoux: Philosophy in the Making* from Edinburgh University Press.

More generally, what we now call “common sense” is simply the usefully mediocre sum of everyday lore amassed by the human race up to the year 2011.

But we're still a fairly young species. The common sense of one thousand years from now will surely be very different, and philosophy's job is to anticipate and even provoke it, not to follow its boring current form.

LK: Can you speculate about a near future, when it's common sense to think that objects matter in the world we live in and have existences and effects outside of humans – not just the military but other fields too? What would that look like? How much would it resemble your quadruple object?

GH: Often when this question is asked, people want to know what the *political* ramifications of object-oriented philosophy would be, and I think this is the wrong place to start. Intellectuals have become far too aggressively *political*, in almost puritanical fashion, as if there were something immoral about looking for beauty or fascination in the world as long as there is still exploitation somewhere. Philosophers have tried to save the world; the point, however, is to explore it. Politics is important, but philosophy is not the handmaid of Leftism any more than it is the handmaid of theology, physics, brain science, semiotics, or comparative literature. The point of philosophy is not to flatter our pre-existent prejudices about what politics ought to look like. I'm saying this because of frequent experiences I've had, not because of anything in your question, which is a perfectly neutral invitation to draw consequences.

For now, let's just consider the situation in more general terms. Objects are the anti-reductive principle *par excellence*. They exist midway between their tiny components and their palpable external effects. In this way they resist reduction both downwards and upwards– neither undermined nor overmined, neither undercut nor “overcut,” to coin another new term. Objects occupy the middle range in any situation, lurking beneath their outward effects, but they are also something real that cannot be decomposed into tinier elements. This is important because so much of recent human intellectual life is trapped in a permanent trench war between the tiniest (as championed by science) and the largest (a human-centered perspective championed, of course, by the humanities). The avoidance of these trench wars by way of objects is a method – and “middle way” is what “method” means in Greek– that can be used in pretty much any field.

For example, there is the endless debate between those who want to reduce the human mind to a complex of subpersonal physical entities, and those who counter that the mind is part of a wider holistic web of interactions. I don't want to mix these two and reach a compromise; instead, I want to say that both are wrong. A person is not just neurons, because you can replace or eliminate neurons and still have the same person. But neither is the person a series of holistic interactions with the environment, because there are always real aspects of the person that are muffled or suppressed by any environment. And besides, not all environmental things that happen to us leave any important trace. Just as we can remove many neurons and still have the same person, so too (in principle, if not in practice) we can strip many events from someone's life and they would still be the same person. A person is not a narrative: not because narratives are arbitrary constructs that create fictional stories about who we are,

but simply because a person is deeper than a story. A person is the key *ingredient* in a story, not its result. In classical terms, we are neither our physical ingredients nor are we what happens to us or the stories we tell about ourselves. Instead, we are “substantial forms,” meaning that each of us has a definite structure that can be alluded to or approximated, but never exhaustively described or expressed. This scares many people because it sounds like a “soul.” But I see nothing wrong with souls, as long as we don’t arbitrarily posit that these souls last forever and go to heaven or hell. No such claim is made by object-oriented philosophy, which can be perfectly secular in spirit. Humans have “souls” in this sense, but so might dogs, cornstalks, trains, and the whole of France. These souls are neither eternal nor unalterable, yet they are still deeper than the effects they produce, and are something over and above the components of which they are formed. They are temporary souls, you could say. Perhaps there are even some permanent ones. Who knows? But that’s not the point.

Looking for the Soul of the Thing

In fact, “look for the soul of the thing” might be a good maxim for object-oriented philosophy, at least in my version of it. We already do this all the time: for example, whenever we act as art, music, literature, or food critics. A good review captures the spirit or soul of a wine or a restaurant, rather than getting lost in the minutiae of their qualities. Kafka is not a sum total of sentences; there is a certain Kafka style or soul of Kafka that precedes the sentences, and we all know this, and a good critic captures that soul better than a bad one does. As Socrates told Meno: “How do you expect me to know what qualities something has before I know what it *is*.” Philosophy is that paradoxical lifestyle that tries to know things before knowing these qualities, even though it can only be done with the indirect assistance of these qualities.

But I don’t want to skip your question about whether a world of objects would resemble the world of *The Quadruple Object*. I hope so, because in the book I tried to show how objects are always situated at the crossroads of several tensions, and that just as these tensions are the root of causal interaction, they also lie at the root of beauty, or “allure,” as I call it.

LK: Winograd and Flores (1986) use Heidegger to describe designing as ontological: design as proposing new ways of being in the world. Are indeed all practices ontological, in the sense of creating new kinds of arrangements of objects and people? Design seems to me to be close to Latour’s experimental metaphysics. But unlike the social sciences, the project of design is not just doing serial redescription but actively making and constituting new realities. Do you think this makes sense? Are designers fiddling with the furniture of the world?

GH: I hope they do, because someone needs to do it! But your question is a serious one. I do believe that not only do all human activities deal with objects, but all animal and plant activities as well, and even inanimate interactions, and in this respect absolutely everything that happens is ontological.

But some ontological actions are more ontological than others. Heidegger's *Being and Time* cuts deeper into the foundations of the world than a crossword puzzle or a Gran Prix race. Art and design seem to me to be at the front lines of the struggle as well, just like philosophy. For me, philosophy deals with the tension between real objects (which forever withdraw from view) and their accessible surfaces (which do not), or between real objects and their real and apparent qualities, or between accessible images and both their real and apparent qualities. There are earthquakes underway along the fault lines between these relations. And this seismic region is the homeland of art and design as well, I believe. *The Quadruple Object* is where I discuss these issues in most detail so far.

LK: You seem captivated by style, again something designers are at home with. You clearly enjoy Latour's wit in his writing, and make your own books and talks vivid, engaging, funny. I wondered how and why this was important to you.

GH: We have no right to bore people, and philosophers sometimes forget that. To some extent the profession is still over-influenced by the period of Germanophone university dominance in the field. Here I'll risk a bit of sociology and say that in Germany, the professor is guaranteed a place of high esteem in society, and is expected to address other specialist academics— in Germany, that's precisely what it means to be a serious philosopher. By contrast, I come from America, a place of abundant social energy but also one with a dismal streak of anti-intellectualism. In America unlike Germany (and France, for different reasons) philosophers have to justify their existence constantly. In short, I don't think the model of specialized academic philosophy is a good fit for a country like the United States, because in America there is no guaranteed social esteem for the specialized academic— quite the contrary! Academic philosophy lives in a hermetically sealed kingdom that has little to do with the wider intellectual life of the country and has little impact on it, whereas in Germany one could write ultra-technical treatises and still have some wider cultural resonance.

I've always wanted to write in a way that would have a genuine impact on my surroundings, including in fields other than philosophy. One of the biggest influences here was that as an undergraduate, even before reading Heidegger, I was devouring the books of the Spanish philosopher José Ortega y Gasset, such a fine writer that he was shortlisted for the Nobel Prize in Literature a number of times. In Spain he faced the same issue described above: the ultra-technical treatises of the Neo-Kantianism he studied in Marburg would have been dead on arrival in the Spain of the 1920's and 1930's. So, he wrote newspaper articles for a living, and his style was always vivid and captivating as a result.

As for me, I don't go quite that far, despite my brief period as a Chicago sportswriter in the 1990's. I do write fairly dense and technical things at times. But I always try to do it with irreverence, with strange and jolting examples, with the most vivid metaphors I can think of, and in as populist a fashion as the subject matter allows.

Here's how I look at it. There are many smart and imaginative people in the world. Only a tiny percentage of them work in academic philosophy, simply

because there are so many fields in which smart and imaginative people can work. If philosophy speaks only to philosophers, then it has failed, and that's why the mainstream philosophy that dominates academia today is doomed to be swept away by the winds of time. Artists and designers never care about it, architects don't care, filmmakers don't care, and as far as I can tell even most working scientists don't care.

And here's another problem with mainstream academic philosophy– they think they are good writers, when actually they're not. That's because they think good writing is only about *clarity*, as if the only problem with bad writing were vagueness and imprecision. But what we need is not clear writing, but *lucid* writing that really brings things to life before us. And since things are never entirely clear, lucid writing means using vagueness, allusion, and insinuation at times, just as the great Renaissance painters had to master the art of shadow to depict things accurately. Academic philosophy today has no sense of *chiaroscuro*, and thus no sense of style.

Change: Examining What Things Should Be Doing

LK: One of your criticisms of Actor Network Theory is that it is not good at explaining change. For example you show that the infinite regression of black boxes, as actants touch other actants, does not allow us to explain how things change. Is there an object-oriented way of thinking about change?

GH: As you know, I'm a great admirer of Actor Network Theory. My first encounter with Latour's books in 1998 was decisive, and finally made me feel rooted in a contemporary discourse of some sort after spending my twenties in the intellectual wilderness.

But yes, I think one of the weaknesses of the heavily *relational* approach of ANT is that it cannot adequately deal with the parts of the object that exceed its current relations. Latour's best case studies (Pasteur, for example) are about things that have *already happened*. All the relations and translations have finally done their work, and we can use Latourian tools to explain how it occurred.

Yet I'm not sure that ANT is quite as useful at counterfactual cases. What counterfactual cases do is allow us to look at the innate powers of a thing that might not have been expressible in their actual environment, and ask how things might have played out differently. I don't think it's crazy to ask, for example: "What if Poe had been born in France?" In France he was fully appreciated and generally a good fit, and might have developed as a socially esteemed literary lion rather than as the doomed bohemian drinker that America made of him. Or: "What if Heidegger had died in a car accident in 1930?" I think it would have done wonders for his reputation, because he would never have been able to join the Nazi Party, and also because I happen to think that his work fell off sharply after 1930, at least for about twenty years. If Heidegger had died at exactly that point, his successors would have continued to mine the thoughts from the period of *Being and Time* rather than gotten entangled in so many of his dead ends of the 1930's.

The field of counterfactual speculation still seems badly underdeveloped to me, and is still found mostly in entertaining gimmick books about other possible World War II's, and so forth. But it might be possible to develop a very sophisticated methodology in this direction, and I don't think that's what ANT is best at, because it is so focused on actuality.

LK: But what does object-oriented philosophy do for people speculating about the future, rather than the past as in counterfactual history? I wonder how someone might use your work in creating and configuring *future* things? What do you think it offers?

GH: The future can be viewed as a counterfactual version of the present. "What if Turkey were a superpower again?" ... "What if the normal human lifespan were 140 years?"

The danger of relationist thinking is that it focuses too much upon reciprocal interactions in the "now" and too little on what things should be doing that they are prevented from doing by the accidental set of physical and social relations in which they are now entangled. The term "essence" gets a bad press these days, because it has come to be associated with all kinds of oppressive and reactionary dogmas, but if we take "essence" in a more minimalistic sense to mean "what a thing is quite apart from its current accidental situation," then a certain essentialism is unavoidable. But this is not the sort of insight that object-oriented philosophy needs to manufacture, since it already exists in our everyday practices and implicit philosophical outlook. Any good teacher tries to project what students are capable of becoming. A good leader of an institution, such as a country or a university, also has some sense what it might be able to become under changing circumstances. This is why McLuhan thought that effects precede their causes: to some extent the telephone merely consolidated and amplified effects already produced by the telegraph, meaning that telephone-effects existed before telephones themselves did. The same holds here. Numerous intellectual methods already exist that involve subtracting the object from its holistic interweaving with other things and thereby liberating its solitary power. If my work can contribute anything to this process (which is already done quite effectively by strategic planners in any number of disciplines) it is through encouraging people *not* to follow the recent trend of treating objects in terms of dynamic wholes. Look instead at how individual entities disrupt or resist or withdraw from those wholes. This can provide a clue as to what might be coming next.

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