

# The Vivid Presence of Design Thinking

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There is no denying the important role of language in designing, but dull hangovers from postmodernism that would substitute language for mind and regard artifacts as only *texts* and not *works* will never satisfy designers who routinely blend language, model imagery and experiential thinking in creative practice. The interplay between linguistic and non-linguistic design thinking remains a spottily mapped territory. There is a complexity here, a mental richness at play that deserves a far wider acknowledgment and appreciation. I approach this rather large subject through a modest example of teaching multi-modal mental models of intentional thinking in design theory.

A phase is a stage in the life of a process, and design thinking processes like all processes have phases and phase transition points. The phase I want to focus on comes after the transition point in every project when a satisfactory description of the problematic situation has been agreed upon, the decision has been made to proceed, and the focus notably shifts to the development of the project's goals. I say goals here metonymically - as opposed to project intentions - because of the way we mentally place goals at both the near and far ends of a design process. On the near end, it is hard to describe a programmatic gap between what presently exists and what is desired without articulating some version of what is wanted. And on the far end, goals light up a beckoning horizon that an intentional process must aim at, chart a path toward and evaluate. I've thought of this phase transition point in designing as occurring when intentions shift directionally into "intending toward..." and will discuss intellectual tools of two complementary flavors to carry the process forward.

## Goal Structures and Vivid Presence.

Yogi Berra is often quoted as having said, "When you come to the fork in the road, take it." (He also said, "I didn't say everything I said.") But in this case, according to a baseball insider, he was talking to New York Yankee shortstop, Phil (The Scooter) Rezzuto, about his home's circular entrance. The two approaches I use to describe "intending toward..." both lead like Berra's entrance road from the same *here* and end in the same *there* but they take different paths and tap into different kinds of design experience.

## Goal Structures

The first path I call Goal Arrays. Almost every planning document I know is built around some variation of the rational planning model: principles, goals, objectives, standards, that was taught in planning classes at the Harvard Graduate School of

Design when I was there in the early 1960s. Check your local school or municipal plans for some version of this descending intentional order and you will see what I mean. The language varies a bit. Instead of principles, for example, Eugene's present Metropolitan Plan calls them pillars, but it's the same thing. Some plans reverse goals and objectives or use the terms interchangeably. I imagine the six pillars of Eugene's plan as Caryatids, six strong women working together, standing as the six key principles of the plan and holding up a structure of shorter range and smaller scale objectives, tasks and actions. Most planning and design projects begin with goal setting sessions of some kind and attempt to build logically structured arrays of goal-like intentions. This is the entrenched legacy of modernist rational planning.

Before I develop this thinking path further, I need to characterize it and say what I think it does well and also what it doesn't do. Used well it provides a well-organized, logical, verbal model of *whats* – what it is that is wanted – from the most general to the most specific. Used poorly it produces only overly generalized goals, big *whats* that fail to become operationalized at descending intentional levels and so never reach or touch a tangible there.

The strength of a goal array is the abstract power of having an organizing framework of logical and progressively smaller *whats* that connects general ideas with specific and tangible objects. Its weakness is a result of that abstraction. A goal array's spare bones exhibit the strength of structure but lack the flush and flesh of human experience.

In practice it is hard, especially for lay stakeholders – not to mention students -, to initially synthesize their many interests and concerns in the form of goal statements. My answer has been to approach goal development by first taking an alternate experiential path from here to there. I call this experiential path Vivid Presence. The development of values and goal arrays, about which there is still more to say, greatly benefits from first generating some imaginatively integrated experience to boil down.

### **Vivid Presence**

If goal arrays generally attempt to structure the way forward, Vivid Presence is a backward report from the project horizon where the desired and projected outcome has already become real. You are asked to imagine that ten years have past and you return to see how it all turned out and report back. But the reporting is to be done in a particular way, for reasons, and in preparation you are referred to some conditioning materials that follow:

The tenor is in the title: Vivid Presence - **vivid** meaning: sharp, clear impressions, sensations, mental images; invoking strong life-like mental images; and **presence**: state of being present (in a place) and sensually attentive to the place itself.

The intended mental focus is phenomenal, not conceptual, as in “Not ideas about the thing, but the thing itself.” And “Let be be finale of seem/the only emperor is the emperor of ice cream” (Wallace Stevens).

From an imagist perspective it becomes obvious, as William Carlos Williams writes, that:

so much depends  
upon  
  
a red wheel  
barrow  
  
glazed with rain  
water  
  
beside the white  
chickens.

Star Trek and later-tek generations seem to have no trouble getting into the spirit of such an imaginary visit and beaming right in. Some, fly in, some drive in, and some prefer a more incremental, and mood building meditative approach such as in the four stages of looking at a Chinese landscape painting: See, Travel, Ramble, Dwell.

**See:** one stands before a Sung scroll marveling at the small figures before the unique hills of the Chinese landscape as they walk along the roads and cross the tiny bridges...

**Travel:** one enters the painting and walks along besides the travelers...

**Ramble:** having become familiar with the landscape, it is now possible to leave the main path, no longer observable to the outside viewer and explore the landscape...

**Dwell:** one enters fully into the landscape, time and place and dwells among the people...

The object is to “come to your senses,” observe, meet and talk to people, take note of how they use and react to the place (or product or new organization) and write home what you experience as a gifted novelist might describe the outcome of your work. Note the varied human responses and affordances that take place, and use only language that names things and is expressively describes the interplay of people, place, light, color, atmosphere, settings, operations, occasions, personalities and feelings.

Here for example is the way Charles Dickens draws the reader into the world of Philip Pirrip, “Pip” in the (appropriately entitled) *Great Expectations*:

Ours was the marsh country, down by the river, within, as the river wound, twenty miles of the sea. My first most vivid and broad impression of the identity of things seems to me to have been gained on a memorable raw afternoon towards evening. At such a time I found out for certain that this bleak place overgrown with nettles was the churchyard; and that Philip Pirrip, late of this parish, and also Georgiana wife of the above, were dead and buried; and that Alexander, Bartholomew, Abraham, Tobias, and Roger, infant children of the aforesaid, were also dead and buried; and that the dark flat wilderness beyond the churchyard, intersected with dykes and mounds and gates, with scattered cattle feeding on it, was the marshes; and that the low leaden line beyond was the river; and that the distant savage lair from which the wind was rushing, was the sea; and that the small bundle of shivers growing afraid of it all and beginning to cry, was Pip.

Descriptive, phenomenological writing, where one’s expanded awareness of qualities goes beyond such generalities as “entrance,” to, “deeply weathered and squeaky old, barn door,” or “indigo blue irises,” instead of flowers, requires a mode of mind that is very familiar to everyday life. And most people I’ve worked with have taken to it, unlike Pattern Language, with ease and enjoyment. One graduate student, who was laying out a plan for the Singapore harbor started out describing what it was like to arrive by ship and went on beyond the two pages I’d assigned to write several chapters about the life of the people behind the land use plan he was proposing. I’m told he now also writes novels.

Another good example of this kind of writing is an essay by writer Paul Fussell again appropriately entitled, “Journey’s end: Nirvana on five dollars a day, that appeared in Harper’s Magazine. Fussell describes the perfect trip to a place where everything is just the way you want it including the price. The “place” is this account was the ideal vacation, but the artifactual focus could just as well have been a new product, policy, organization or system.

Such visioning is not new to planning and designing, and of course I didn’t invent it. Some form of visioning and goal setting process is common to most organizations. In business, great leaders such as Steve Jobs are expected to envision so that managers have a profitable flow of “insanely great” products to manage for.

The U.S. Army, for example, has a formal process for goal setting that begins with visions:

1. Visions: what will the organization look like in the future?
2. Goals: create the framework.
3. Objectives: create measurable terms.
4. Tasks: how will the objectives be accomplished?
5. Timelines: when will they be accomplished?
6. Follow-up during the actual performance to ensure all the above is being met.

(1987 version)

Their job, of course, is to take very seriously, “Where there is no vision, the people perish.” — Proverbs 29:18

And everyone will recall a similar version of this common interview inquiry, “Where do you see yourself and this company in five years?” Vivid Presence would take you out of that interview chair, where you are being asked to make a projection, and into the act of being a participant in a future that you helped to bring about.

The primary difference between Vivid Presence and all the many envisioning practices is its emphasis on the use of phenomenal, descriptive language to project and capture experience augmented by the processing of that experience in a systematic goal array framework. Phenomenal language that records a vivid presence may be as close as language gets to the representation of direct experience. The point of Vivid Presence is to emphasize language’s capacity to be descriptively and holistically expressive and play down its linear - like “birds on a wire,” sequential, abstract nature. Language, so critical to the social process of designing, has the capacity to be both abstractly conceptual and experientially descriptive. My thesis here holds: that design thinking tools are needed that operate across the full spectrum of linguistic representation.

In vivid descriptions, goals that had served as earlier scaffolding no longer exist because they have become actualized in experience. What were lists of specific interests have been blended and highly integrated into the situated wholeness of the real. Getting back from specifics to goals (from *there* to *here*) requires some reverse engineering – like knowing the answer to a math problem and having to work backward through the proof or knowing the novel and paring events back into outline form.

The question then becomes: how to process the material? How to draw bones back from the flesh - extract key makings from the stew? First attempts at goal extraction from vivid descriptions are typically far too complex and highly integrated goal statements. Piling up goals in one long sentence just reflects how close the language is to recent experience. How useful it would be to have a magic net with single-goal-sized mesh that one could draw through an experience. Or a set of sieves like the ones used to sift gravel. Absent that net, I’ve prescribed two new tools to help sieve that vivid experience. The first is the fore-mentioned Goal Array, and the second is a Fan of Values.

## **Goal Arrays**

Goal Arrays lay out a common intentional vocabulary and structure. It’s hard to communicate clearly about the varying levels of goal making with a too-loose vocabulary and unclear ideas about intentional hierarchy, roles and relations.

I've named them Goal Arrays, after the more common usage, but they are more accurately value structures. Values, here, are centers of meaning in experience, a measure of the worth or significance a person attaches to something. They are "underlying dispositions for an individual's beliefs, attitudes, and behavior." (Rokeach) In a Goal Array, valuing is "the mother of intentions" and the source-generator of intentional structure.

A Goal Array is an organization structure of intentional *whats*:

<b>Values</b>	<i>Whats</i> : In areas of significant concern
<b>Beliefs</b>	Sacred values
<b>Principles</b>	Secular sacred beliefs
<b>Goals</b>	Longer-range, more general <i>whats</i>
<b>Objectives</b>	Shorter-range, more specific <i>whats</i>
<b>Tangible possibilities</b>	Examples of actualization & resolution
<b>Possible actions</b>	Examples of actualization & resolution

The stepped array ranges from the most general categories of human concern (what it is that we believe in, care about, desire, need, want, prefer...) to their most specific, tangible and physical manifestations. The difference between goals and objectives is that goals are the longer-range, more general intentional statements about *what* we would like to achieve. Objectives are the shorter-range, more specific *whats* that further project goals. Strategies are the *hows* at each intentional level, clever ways to achieve one's goals. If the *how* strategy, for example, is to double the advertising budget, the *what* goal is probably to capture more of the market.

In the Goal Array model, goals that we set grow out of beliefs, things that we believe in, some of which are secular, some sacred. These beliefs are deeply held intuitions that are not much open to scrutiny, evidence or discussion. Think, for example, of the central and coordinating belief in "union" in the Civil War or the principle that "...all men (and women, and people of all races...) are created equal," grounded in our Declaration. Principles here are defined as secular beliefs and religious beliefs as sacred spiritual values.

At the bottom and tangible end of the array are goal-answering, physical possibilities – actual things, organizations, or actions. From a top-down perspective, these are such-as examples, goals grounded and made real. Vivid Presence dwellers will have already experienced a rich mixture of such preferred resolutions - up close and personal.

The Goal Array model is most effective when you start from wherever you are intentionally in your thinking and try to fill in the array in both directions. This means mentally clarifying the root source of an interest or concern, the present level

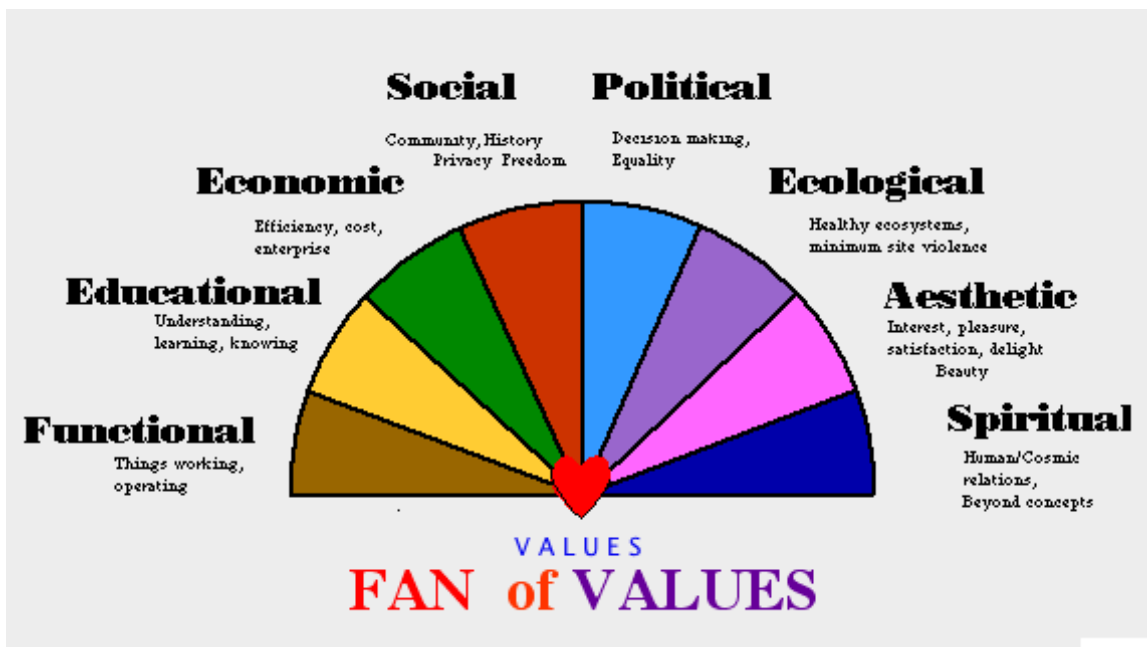
of abstraction, and speculating on preferred resolutions without worrying about how a possibility from one goal area might blend or fit with another. The idea of an array is to both expand, structure and clarify intentional thinking.

When processing vivid experience, it becomes obvious that the present state is an integration of preferences from more than one intentional source – that there are many goals in play – and that calls for another kind of sorting tool.

## The Fan of Values

According to sociological research, there are some 36 to 90 basic human values, a small number with a large cultural impact. We know that cultures vary vividly in their priorities and expressions of these common values and express our appreciation of this impressive variety in such phrases as: *c'est la vie* and *vive la différence*.

The Fan of Values array sorts the list of values into eight common categories as shown in the model below. This particular generalization is based on the sociological research in Milton Rokeach's three books on values and beliefs.



A primary purpose of the fan is to identify the source territories of the primary intentional shapers of an artifact. The fan collects, displays and sorts those interests. Whether something is being intentionally projected into being (intending toward...) or vivid experience is being processed (deconstructed), the fan array

provides a method of sorting and recording. It maps signature intentional patterns – fan patterns or fan prints, if you will - that vivify goal areas of primary interest, emphasis and concern.

I've told students I often listen to their presentations or client's conversations with the fan image vividly present in mind and throw darts at the fan based on the goal flavors I hear in the discussion. Sometimes, I admit, for the sake of variety, I throw mud balls at their categories. I offer to lend them my fan to try it for themselves – but only if they agree to clean it up afterward.

Like Goal Arrays, the advantage of having an array of values is that it will often reveal areas of importance that are not yet being adequately covered or discussed (not marked with mud). It can also call attention to the relative importance of the different areas of consideration, those that will get the most emphasis (or got the most emphasis if working back from experience), which will become (or became) the armatures and which the helpers of composition and configuration, and which are so central to the matter at hand to be identified as *sine qua non*.

The fan model is meant to stimulate a wider and deeper consideration. As William Kleinsasser, a colleague for many years has written:

“Our work reveals what we have considered. If we have considered little, our work will be dull. If we have considered much, but done so superficially, our work will be shallow; if we have given serious consideration only to some things, our work will be interesting (perhaps) but off. Our goal then is to consider all that should be considered in the design of places for people and to do it well. If we accomplish this, our work will have a chance to be genuinely good.”

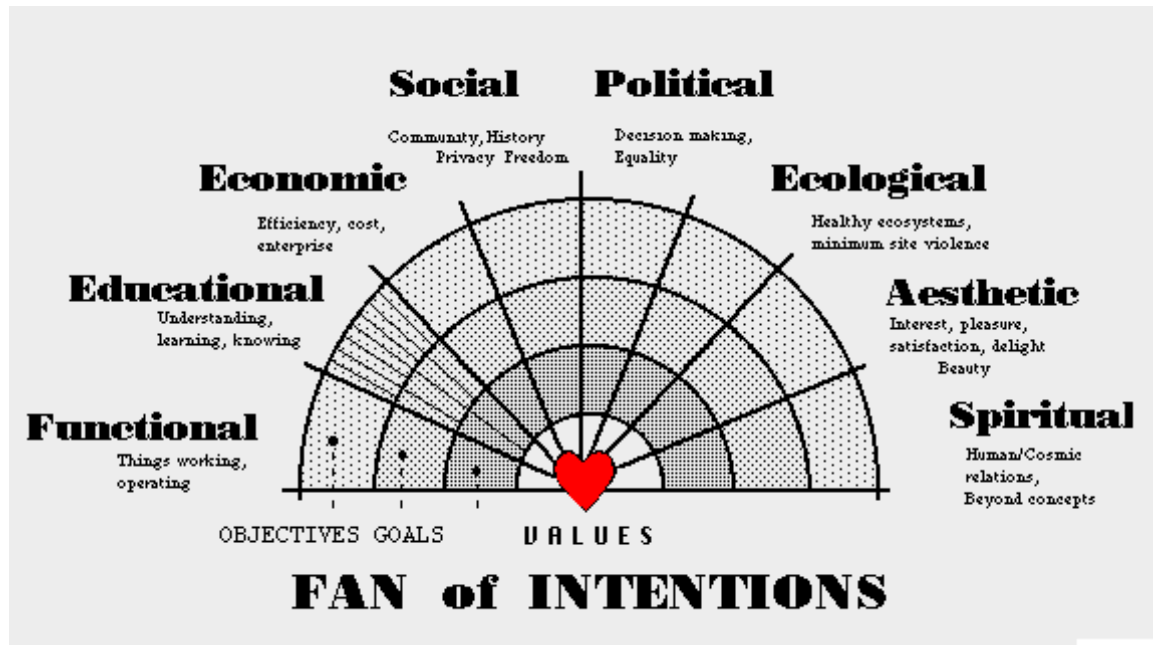
The image of a fan adds useful meaning to the concept. Fan-like value categories can overlap and fold up into one, in the same way that colors in a prism can “fold up” into the wholeness of white light. One opens the fan array for purposes of analysis, displaying each area of interest with its own emphasis and direction, but always mindful that the closing of the fan – the work of blending, integration, value conflict resolution, composition and configuration must follow. Of course there is a penalty for such good use of the fan. The serious widening and deepening of considerations only increases the challenge of blending, integrating and composing in designing.

### **A Fan of Intentions**

If we blend this Fan of Values with the earlier Goal Array model, we create a second order Fan of Intentions, where each value area of the fan now contains its own goal array.



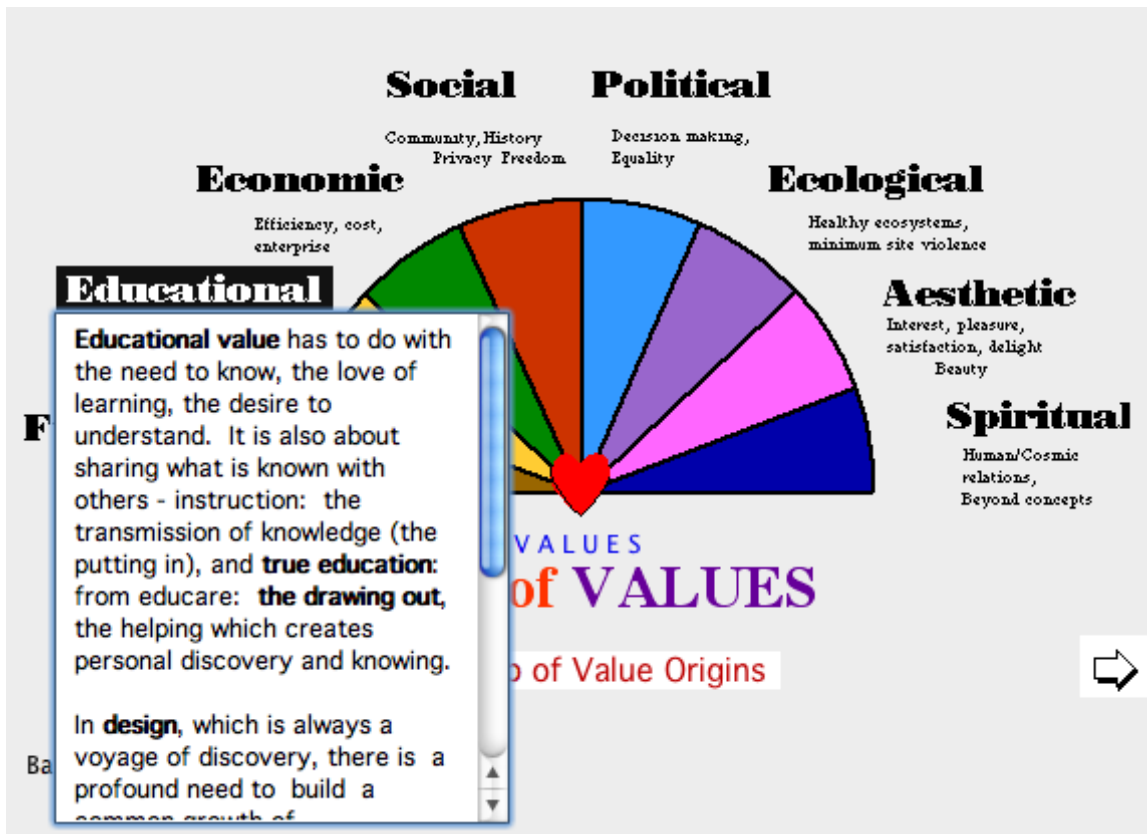
The array of beliefs, principles, goals, objectives, possibilities, and actions radiate out from each value source. The diverging rays of the fan convey that for any particular principle there will be several key goals, each goal with its own set of objectives, and a widening number of possibilities.



Looked at one way, the Fan portrays intentional criteria as an expansive divergence: looked at another way, all paths of possibilities must selectively converge and integrate back into the one. Or if you prefer, the convergence of designing takes place on the backside of the model where all the most significant and compatible *whats* become blended, integrated and composed back into a significant whole.

A dynamic view of the model would have it unfolding, used divergently as value key areas are developed, others are explored and included, and then used convergently, with the fan folds overlaying one another, as relationships and key correspondences are explored, until everything is newly integrated, recomposed and vividly back together again.

In the Mac version of this Fan of Values and Fan of Intentions - available on my website - there is the additional opportunity to expand vocabulary and discuss what each of the value regions is about. The image below show how each of the titles explains itself when selected.



Here I describe my version of Educational Value as ground for further discussion. Each of the other areas opens up as well in order to ground, stimulate, and enrich communication.

Re: Educational Value. An emergent educational principle here might be: primum non nocere followed by the very high level and general goal: to make education sing in your hearts. When I've asked students what they thought might be wrong with this goal, and didn't they think it might be a bit too general to be useful, they've generally responded that they got my point but wanted to keep it anyway. And so on down the array to such tangible intellectual tools as Vivid Presence, The Fan of Values, the Fan of Intentions and this present essay to describe their intended contribution to design thinking and their use.

My advice to all who borrow them has been to keep the models out of sight, never mention them, and to think through them invisibly. No one will know what a Vivid Presence, Goal Array, Fan of Values or a Fan of Intentions is, and won't know or care what you're talking about. There is also not much to be gained by arguing over the choice or content of the value categories in the fan like a bunch of Alaska gold miners squabbling jealously over their hugaboards.

Most people, I've found, will start to nod off if you say anything about aesthetic value or the aesthetic deficiencies of a place. Experience suggests that it is more effective

to mentally skip down lower on the array and just say that the thing is rundown and needs a coat of paint. The goal is to have some theoretical tools and design vocabularies that help usefully place, process, communicate and develop significant interests and experience. The danger is letting such tools fall into the hands of rigid thinkers and obsessive compulsives.

I hope this example stimulates more attention to the complementary uses of language, imagery and mental models in design thinking. I hope too that it reveals some of the Janus-like thinking that is typical of designers as they go about their work from more than one direction at the same time.

If Yogi Berra had known all this he would have told Rizzuto, "When you come to the fork in the road, take both paths so that you arrive somewhere beyond where you were going."

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**Vivid Attention:**

"Hardly any faculty is more important for the intellectual progress of man than attention. Animals clearly manifest this power as when a cat watches by a hole and prepares to spring on its prey." Charles Darwin, The Decent of Man 1871.