LEONARDO REVIEWS

BOOKS

PROBLEM SOLVED: A PRIMER IN DESIGN AND COMMUNICATION

by Michael Johnson. Phaidon Press, New York, U.S.A., 2004. 288 pp., illus. Trade, paper. ISBN: 0-7148-4174-9; ISBN: 0-7148-4453-5.

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In the U.S.A., where art schools are often a mixture of artists and designers, the former are typically said to "create" works of art while the latter are apt to more modestly claim that they only "solve problems." To put it another way (as does this book's author), "[while] a fine art student can get away with creating his or her own problems to solve, a communications student is usually handed someone else's, with a looming deadline thrown in." It is itself a problem that designers always have to deal with limitations of time, function, budget, style and print production, and it leads to unending discussions about whether or not it would help to compile a typology (a comprehensive directory) of kinds of problems, and, having done so, to identify trustworthy, timesaving means to address those problems. Among the best-known books on this subject is *Forget All the Rules You Ever Learned about Graphic Design* (1981), by Bob Gill, whose influence is acknowledged in the introduction to this book. Of related significance are books by Edward de Bono (not mentioned here), who wrote interminably about

what he called "lateral thinking"; *A Smile in the Mind*, by Beryl McAlhone and David Stuart (1996); and, most recently, *The Art of Looking Sideways*, by Alan Fletcher (2001).

This book by Michael Thompson, a British designer and Creative Director of Johnson Banks, is the paperbound edition of a title that was first released by Phaidon in 2002. Given the excellence and extraordinary number of its illustrations, as well as its vigorous, literate tone, it is a deserving addition to the always ongoing debate in design about how to arrive at proposals that are both unexpected and appropriate.

The book has 18 sections, each dedicated to a certain kind of communication problem, the point of which is summed up by a memorable heading that (consistent with the samples shown) is both surprising and suitable. There are, for example, sections that play up such themes as evolution versus revolution, doing more while using less, making fresh use of historical styles, finding legitimate ways to resolve ethical *imbroglios*, effectively designing for education, and so on. With each turn of the page, one encounters the finest examples of wit (ranging from hilarious to offensive), such as the political billboard of a pregnant Tony Blair that reads, "Four Years of Labour and He Still Hasn't Delivered"; or a book of short stories by Vladimir Nabokov (who was not only a writer but also a prominent butterfly expert as well) in which the letters of his name on the cover are mounted on pins in a butterfly case; or a recent ad for Volkswagen in which three of the redesigned Beetles appear to be feeding like piglets at the chassis of an older van.

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BEYOND THE LIMITS OF THOUGHT

by Graham Priest. Oxford Univ. Press, Oxford, U.K., 2003. 336 pp. Trade. ISBN: 0-19-925405-2.

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Imagine that a foundational principle of Western science, logic and reason—perhaps *the* foundational principle—turns out in certain circumstances to be deeply inadequate, even fatally flawed. This is, in effect, what logician Graham Priest sets out to prove in *Beyond the Limits of Thought.* The foundational principle at stake is that of "non-contradiction," the axiom of rational belief that asserts that a given state cannot be both true and false at the same time. Since it was proposed and defended by Aristotle in the *Metaphysics*, the principle of non-contradiction (PNC) has exerted a mighty grip on Western thought, serving to underpin much, if not all, reasoned inquiry. But as Priest makes clear, despite the apparent obviousness of the principle, it has been periodically tested during the course of philosophical history and, when pressed, found seriously wanting.

In this mind-bending (and for the uninitiated, sometimes mind-boggling) book, Graham Priest sets out to show that despite the best efforts of some of the most potent minds in history there are states of "true contradiction." The claim is that when we examine the extreme limits of what it is to say, count,

know and think, we unavoidably encounter conditions that are both true and not true at the same time; these conditions are what Priest calls "dialethic" states: "I claim that reality is, in a certain sense, contradictory . . . . What I mean is that there are certain contradictory statements (propositions, sentences—take your pick) about limits that are true" (p. 295).

As Priest would have it, there are four types of limit to thought, and we are introduced to each in part 1 of the book. The general arguments about the limits of *expression, iteration, cognition* and *conception*, although not overly complex, are too involved to reiterate here. But, in broad terms, they amount to the same thing in each case: That the unknowable is precisely that which we can know nothing about, and that in knowing we can know nothing about it, we know something about it, which is a contradiction, not to say a paradox. On the face of it, this contradiction may seem no more than a vicious piece of philosophical wordplay, until one learns that the combined efforts of Aristotle, Berkeley, Kant, Frege, Russell, Wittgenstein, Heidegger and Derrida (to name a few) have failed to dispose of this simple, yet unfathomable, conundrum as it appears in its various forms.

> The relationship between the limits of thought and contradiction might be described as a vein that runs prominently through the history of Western philosophy—except that it is more like a major artery (p. 6).

By examining some of the key arguments in Western logic concerning the ultimate nature and limits of mind, Priest sequentially disposes of many significant prior attempts to undo the paradoxes that arise. The only conclusion one can draw, according to Priest, is that the nature and limits of mind are actually paradoxical and that rather than deny this, we should accept it. This solution, of course, will displease, or even threaten, those for whom the PNC is the bedrock of rationality, amongst whom one supposes we can count most scientists and philosophers (as Priest is well aware [p. 4]). It could well be argued that if paradoxes are allowed to prevail unchallenged, we may run the risk of undermining the rationalist project altogether.

In one way, Priest does not go this far; his dialethic strategy is, in fact, a special branch of logic that accepts the existence of true contradictions. But in accepting their existence, dialethic logic does not discard classical logic. Dialethic logic is applicable in those cases where classical logic will not do, in particular, when considering various metaphysical questions concerning the nature and limits of thought, being and existence, which are, of course, the topics discussed in this case. In another way, however, Priest takes the spirit of his argument to its logical conclusion, stating that: "In particular, it may . . . be rational to accept that dialetheism is both true and false. In a sense, this is what I do accept" (p. 275).

Common to many of the paradoxical situations presented here is the problem of self-reference, a notorious source of ambiguity, indeterminacy and confusion since at least the time of the Greeks. As Priest frequently and assuredly demonstrates, many of those thinkers who have tried to "stand outside" thought in order to objectively analyze it find themselves hooked on their own horns when their ideas are turned upon themselves. Take as an example Priest's discussion of Derrida's deconstructionist project, in which, according to Derrida, a text has no intrinsic, determinate meaning,

> . . . but may be taken to mean many things. Now apply this observation to Derrida's own text. We take Derrida to be advocating a certain view, namely, arguing against presence, the determinacy of sense. Yet, if he is right he is not advocating anything with stable and determinate sense at all. What then are we supposed to make of what he says if there is nothing *as such* that he says? Or to put it another way, given that he does express certain views, . . . he is expressing something . . . that, if he is right, cannot be expressed (p. 219).

Despite the fact that there are technical sections of the book that are difficult to follow (those not adept at the formal grammar of logical argument will struggle), it is an exhilarating ride, the main destination of which is very clear. Paradoxes are not logical aberrations, nor the result of fundamental errors of conception; they are a part of the fabric of reality as we experience it. The frontispiece contains a 17th-century woodcut depicting a traveler reaching through the membrane that encloses our cosmos into the strange domain on the other side. Whenever we reach for the extremity of thought, we implicitly acknowledge what lies beyond it.

Yet however logically this concept is expressed, it seems to me there is a central aspect of experience that is, arguably, overlooked in all the intriguing maneuvers on the part of the philosophers discussed, and it is this: We either live in a world that is full of intrinsic boundaries (separations, distinctions, objects, etc.) or a world that is totally devoid of them, i.e. one that is utterly continuous, in which there are no intrinsic boundaries between things other than those imposed upon the world by human conception. Philosophers might (and do) argue about which is the truer case. If we actually live in a world that is both devoid of intrinsic distinctions and full of conceptually imposed distinctions, we generate a contradiction each time we impose a boundary distinction that, in fact, is not there. Each boundary, therefore, gives rise to a paradox if only because, as Leonardo recognized, all boundaries both separate and connect, but also because the boundary can be shown both to be and not be there.

This remarkable and important book is a thoroughly updated edition of what was originally published in 1995. As the views expressed are contentious to many, Priest includes a section that addresses some of the criticisms provoked by his earlier edition. His work is gradually gaining converts, and he remarks that the dialethic view "is now more popular than it was in 1995," but wryly adds, "it takes the fingers of two hands to count the number of people who subscribe to it" (p. 271). Although not qualified to judge its merits in the context of contemporary logic, I certainly believe the ideas presented in *Beyond the Limits of Thought* have an importance that resonates far beyond its technical field.

FILM ART PHENOMENA

by Nicky Hamlyn. British Film Institute, London, U.K., 2003. 224 pp., illus. Trade, paper. ISBN: 0-85170-971-0; ISBN: 0-85170-972-9.

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Most artists and their audiences regard the film medium as both an industrial tool, delivering distraction to the local multiplex, and an art tool, delivering big luscious moving images and sounds to the local city gallery. Except that in