Usually, anecdote and theory have diametrically opposed connotations: humorous versus serious, specific versus general, trivial versus overarching, short versus grand. Gallop shows how transcending the anecdote without losing sight of it can fertilize theory-making and demonstrates how theory gains perspective and relevance when it is applied to the trivial and lets itself be impregnated by it. In this sense, the abstract becomes real and the general acquires the flavor of the specific. (Hegelian dialectics are not far away, wouldn’t you think?) Of course, analyzing specific cases is not new. Freud and Lacan, the grand masters of psychoanalysis, did it. And more recently, Slavoj Žižek has done some masterly things as well. But Gallop’s approach is different in the sense that she sticks to the anecdote throughout the analysis, without ever losing sight of it. The anecdote, she says in one of her two lengthy introductions, is reality, and she radically refuses to shut that window and retreat into speculative academic semi-dusk. By doing so, Gallop actually sheds some light on the relationship between anecdote, theory and theorizing. The most enlightening, and probably also the funniest, essay in this bundle is “A Tale of Two Jacques,” about Derrida and Lacan. Practically all the paragraphs start with some temporal statement, situating the essay in time and turning it into a story, connecting several anecdotes. Gallop visits a lecture by Derrida; she dreams; she visits Lacan and Derrida again; she reads an essay, etc. Each time, her understanding of the critique of Lacan by Derrida changes and is seen under a different light. Gradually, she moves into a theory of her own, about her understanding of the two and about herself.

For readers who are not used to the jargon of feminist theory, poststructuralism and deconstructivism, this book might be a bit problematic, but the problems are not insurmountable. Just do not bother to get too deep into it. There is no need to. Gallop knows very well that these parables are all but on their way out. Fortunately, she knows how to wrap the parcels in something lighter and more transparent, and the conclusions are clear anyway. It is a gifted author who can do this.

SCIENCE, NOT ART: TEN SCIENTISTS’ DIARIES

Reviewed by Rob Harle, Australia. E-mail: <review@lis.net.au>.

This book, like its companion volume, Art, Not Chance: Nine Artists’ Diaries, is a result of the grant programs of the Calouste Gulbenkian Foundation. While this foundation is best known for its involvement with the arts, in recent years it has run a grant program, The Arts and Science, “to encourage artists to engage with new thinking and practice in science and technology” (p. 7). The results of this are the book being discussed in this review, its aforementioned companion volume and a book called Strange and Charmed: Science and the Contemporary Visual Arts.

Science, Not Art is of a similar format and style to its companion volume, but in this case 10 scientists were asked to keep a diary for about 6 months to help others get an insight into their day-to-day lives. All of the scientists represented are outstanding in their fields. Many are Royal Society Research Fellows, and their expertise includes the following: cosmologist; ecologist and meteorologist; neurophysiologist; mathematician; marine biologist; paleontologist; biophysicist; geneticist; physical chemist; doctor; and space physicist.

In contradistinction to Art, Not Chance, I found this book inspiring, engaging and a pleasurable read. The diary entries of the scientists seem less contrived and far less superficial than those of the artists. Both groups mention quite personal matters in their entries; the scientists, however, do not seem to make a big thing out of the many banal situations we all encounter from day to day. This disparity caused me considerable concern as the theme and content of the two sets of entries are so similar.

Perhaps a clue to this difference can be found in a statement in Siân Ede’s foreword: “While they [artists] may dread the cruel review, they are responsible to themselves alone” (p. 8). While this may be true of the solo artist painting or chopping away in a lonely garret for some vague future exhibition, it is not true, or at least should not be, for the contemporary artist involved with so many others such as publishers, orchestras, dancers and manufacturing engineers. Further, in reply to the narcissistic self-absorption implied in Ede’s comment, an artist who has entered into a contract and received publicly grant money is as morally and legally responsible as a scientist in similar circumstances. I am not suggesting for one moment that artists compromise their creations by pandering to the whims of a committee of “bean counters,” only that artists are responsible to others in varying degrees.

It seems this mythical (though obviously manifest) lack of accountability is reflected in many of the artists’ diary entries. It is almost as though the artists hold their audience, funding bodies and associates in contempt. This is nowhere to be found in the scientists’ diary entries. They are absorbed totally in their projects and seem absolutely genuine in the passion for their work.

The scientists’ diaries give a fascinating insight into the “fast lane” world of scientific research, competition between scientists, funding and the potential benefits for humanity of the successful project.

I highly recommend this book. Apart from fascinating general interest reading, it is indispensable for any student contemplating a career in research, science or academic science teaching.

BEYOND PRODUCTIVITY: INFORMATION TECHNOLOGY, INNOVATION, AND CREATIVITY

Reviewed by Amy Jone, The Diatrope Institute, P.O. Box 6813, Santa Rosa, CA.
Since computer science emerged as a field in the middle of the 20th century, it has become an increasingly integral part of human life. The degree to which revolutionary inventors turn to computerized tools is both obvious and understated. As a result we frequently need to be reminded that computer science has drawn from and contributed to many disciplines and practices. These interactions are the core of what we now term information technology (IT)—new forms of computing and communications.

Beyond Productivity: Information Technology, Innovation, and Creativity, developed over 18 months, does this, drawing on the expertise of W.J. Mitchell, N. Katherine Hayles, John Maeda, Lillian F. Schwartz, Barbara Stafford and other authorities who were members of the report committee. The report summarizes where practitioners have developed new applications and praises the creative promise of this approach. In doing so this book argues that the powerful alliance forged by the computer with arts and design is establishing an exciting new field—information technology and creative practices (ITCP). Here, they assert, we find evidence of the benefits in expanding IT’s sphere of influence. The committee also brings to light all that we might gain from encouraging, supporting and strategically investing in this domain.

Comprehensive and impressive overall, the book gives the reader a sense of the excitement of the field to bring to their research. Their enthusiasm will no doubt match that of many Leonardo readers who are personally involved with projects that link computer science with the arts community. The Leonardo community will also welcome the way the documentation incorporates innovative architectural and product designs, computer animated films, computer music, computer games, interactive art installations, cross-cultural experimentation, and Web-based texts. With an eye toward the future, the report additionally acknowledges that the abundant examples of current success also point to the many opportunities for new collaborative ventures that remain to be explored.

Well organized overall, the chapters effectively summarize the broad reach of specific topics and are carefully cross-referenced to point the reader to areas where ideas are expanded in an earlier (or later) section. This outline effectively presents advances in the underlying disciplines of ITCP and associated applications, probes creativity, and comes to terms with the particular concerns of the academic environment and policy issues. It would be hard to remain unimpressed by the encyclopedic accumulation of knowledge concerning all aspects of the topic. As a fan of the way footnotes allow for an ongoing counterpoint to an analytic commentary, I was particularly impressed by the reach of the footnotes. Full of information, they provided delightful aside to the trends generalized in the body of the text. Anyone seeking to learn more about a specific approach will find leads in abundance offered in the extensive subtext provided in the footnotes. Example boxes also add tremendously. Topics include range from the utility of information technology in our computer-linked world to use of the computer in music improvisation and the telerobotics found in the work of people such as the artist/engineer Ken Goldberg. While I already knew many of the examples mentioned in these asides, some, like the fascinating object-based sculpture of John Simon, served as introductions. (For those unfamiliar with his work, Simon focuses on how he combines the skills of painting, sculpture, computer hardware construction and software developments.) More functional, but of great importance to the field, were the boxes that exposed issues. One, for example, outlined how the new technologies have led to a review of the laws surrounding copyright protection.

Despite all of these attributes that recommend the report, I was very disappointed to find that the scrutiny given to the state of the field did not make a serious attempt to introduce the key distinction between science and technology and to clarify how computer science differs from natural science. To oversimplify, it is generally agreed that technology is the systematic study of techniques for making and doing things. Science, by comparison, is defined as the systematic attempt to understand and interpret the world. From this perspective, technology is concerned with the fabrication and use of artifacts. Science, on the other hand, is devoted to the more conceptual enterprise of understanding the world. While one could conclude that both depend upon the comparatively sophisticated skills of literacy and numeracy, not all would conclude that the two domains are equivalent (although this report seems to implicitly infer that they are). Perhaps I missed it, but as I read through the pages it seemed that this committee simply assumed that computer science is a science, much the way social scientists assume their work is science. However, many continue to question the validity of aligning fields such as mathematics, computer science and social science with the natural sciences. Similarities in their methodologies can be shown, to be sure. Nonetheless, we also can find that the use of analogy to manipulate information yields different types of conclusions from field to field.

One area of contention is the way in which the natural and life sciences question their analogies through experiments that yield a different kind of data than do creative projects conceived using mathematical tools that are more adept in coupling logical/algorithms criteria when relating information. This committee never asks if it matters that a logical or algorithmic “science” approaches inquiry from a different vantage point than that of a data-driven experimental science. As a result, this report presents the context of the experimental, technical and contextual issues effectively without reckoning with what the analytic rigor of science conveys from field to field. Without examining the “science” of computer science, these experts adequately look at everything from working within institutional environments to funding issues and problems of peer review, but never conceptualize issues outside of what is essentially a narrowly defined scope that initially appears to be a quite sweeping analysis.

In a National Research Council publication, I found this oversight particularly unsettling. By reputation, this group aims to further communication on scientific and technological endeavors. Given its sponsorship, one would assume that clarifying relationships between science and technology would have a high priority. Yet Beyond Productivity: Information Technology, Innovation, and Creativity seemed to be more aligned with the humanities.

Indeed, it brought the liberal arts of the medieval European university to mind. In this educational system the liberal arts were characterized in terms of the Trivium and the Quadrivium. The traditional Trivium included language,
rhetoric and logic. Language was seen in terms of grammar, the study of meaning in written expression. Rhetoric was defined as a comprehension of verbal and written discourse. Logic refers to argumentative discourse for discovering truth. These elements seem integral to the way ITCP methodology is conceptualized. Similarly, the Quadrivium, like computer science, is about numbers. Included are arithmetic, the understanding of numbers; geometry, the quantification of space; music, the study of numbers in time; and astronomy, the laws of the planets and stars. Only astronomy is what all would agree is properly termed science today. Yet, in the medieval university, the study of astronomy was hardly the empirical science that is contemporary astronomy.

The transdisciplinary approach that the committee elevates further brings to mind today’s liberal arts curriculum, which aims to give one a knowledge of the humanities (literature, language, philosophy, the fine arts and history), the physical and biological sciences and mathematics, and the social sciences. This kind of mix seemed to be the foundation for the undertakings represented in Beyond Productivity as well, a comprehensive survey that did not seem to see its role in terms of asking challenging questions. Rather, the product suggests the goal was to communicate issues familiar to those who work in the art, science and technology environment. Yet, and this is why I raise this point, in the United States there is an ongoing debate as to whether educators have dumbed down science within the humanistic framework. The lack of engagement with where science interfaces with ITCP brings this question to mind, and with it the related question of whether we have successfully educated humanists in the ideas and methods of the scientist.

For example, one interesting section outlined the difference between interdisciplinary and transdisciplinary thinking/activity. According to the view presented, interdisciplinary work is the more appropriate term when an expert in one discipline reaches out to integrate views from other fields. The transdisciplinary worker, conversely, does not dabble in related fields. Rather this practitioner will have developed expertise in all of the fields needed to accomplish a creative task. While a wonderful goal, particularly in light of the report’s view that interactive projects are becoming more evident in the evolving institutional environment, I still found that the report did not address why so many who work in art, science and technology confuse science and technology and indiscriminately conflate them when doing so.

In summary, the committee does recommend mechanisms that would enable and sustain productive cross-disciplinary collaborations but without addressing the difference between science and technology (or explaining why, if this is their view, the authors believe they are comparable). This oversight weakens the overall impact of this report. Elevating the transdisciplinary projects stresses all that creativity promises, but some of the implicit limitations seem to highlight the goals (and shortcomings) of a liberal arts education. The way in which the physical and biological sciences are abstractly present and never clarified raised many of the questions often expressed by critical commentators of interdisciplinary, cross-disciplinary and transdisciplinary work. As such, Beyond Technology will aid those eager to learn more about information technology in terms of art and design. Those who believe that the breadth of the field too often subsumes distinctions between science and technology might find that this report, too, fails to speak to distinctions. Aside from this caveat, those who are new to the field will definitely appreciate the care with which the authors summarize contemporary work. Those who work in this area will no doubt find that the survey is a good resource for thinking about the funding situation, conceptualizing policy issues and finding like-minded people.

AMERICAN MODERNISM: GRAPHIC DESIGN, 1920 TO 1960


Reviewed by Roy R. Behrens, Department of Art, University of Northern Iowa, Cedar Falls, IA 50614-0362. U.S.A. E-mail: <ballast@netins.net>.

To the extent that any country is a melting pot, its culture is indebted to the traditions that are brought in by its immigrants, whether European, Asian, African or whatever. But with luck those same traditions mix, through synergistic alchemy, into new and original cultural forms, of which the most famous example is jazz. At times, related claims are made about a cluster of graphic designers who flourished in the U.S. in the years before and after World War II and whose styles are sufficiently different from other influences as to merit the special, distinguishing tag of American Modernism. A surprising number of these designers were born and raised in the Midwest (e.g., Merle Armitage, Lester Beall, Bradbury Thompson, Noel Martin and Charles Eames), while others grew up in the cities (Paul Rand, Saul Bass and Alvin Lustig). Without exception, they were wonderfully smart and resourceful; they were also eager for experimentation, so much so that they all embraced the European avant-garde (in particular De Stijl, Surrealism, the Bauhaus and Tschichold’s New Typography), acquired firsthand in some cases by working side by side with recent emigrants, among them Ladislav Sutnar, Alexey Brodovitch, Herbert Bayer and Will Burtin. At the same time, they did not align complacently with that influence, but practiced what in retrospect is a seamless amalgam of European Modernism and American Regionalism, in the sense that its softened geometry is not unlike the art produced by Grant Wood, Thomas Hart Benton, Edward Hopper, Charles Sheeler and others who were active in the WPA-era.

The author of this beautiful book, design historian R. Roger Remington, is as well-informed about this subject as anyone and is widely known for his efforts as the founder of the Graphic Design Archives, a large collection of printed ephemera and other research materials in the Wallace Library at the