Design*Issues*

- History
- Theory
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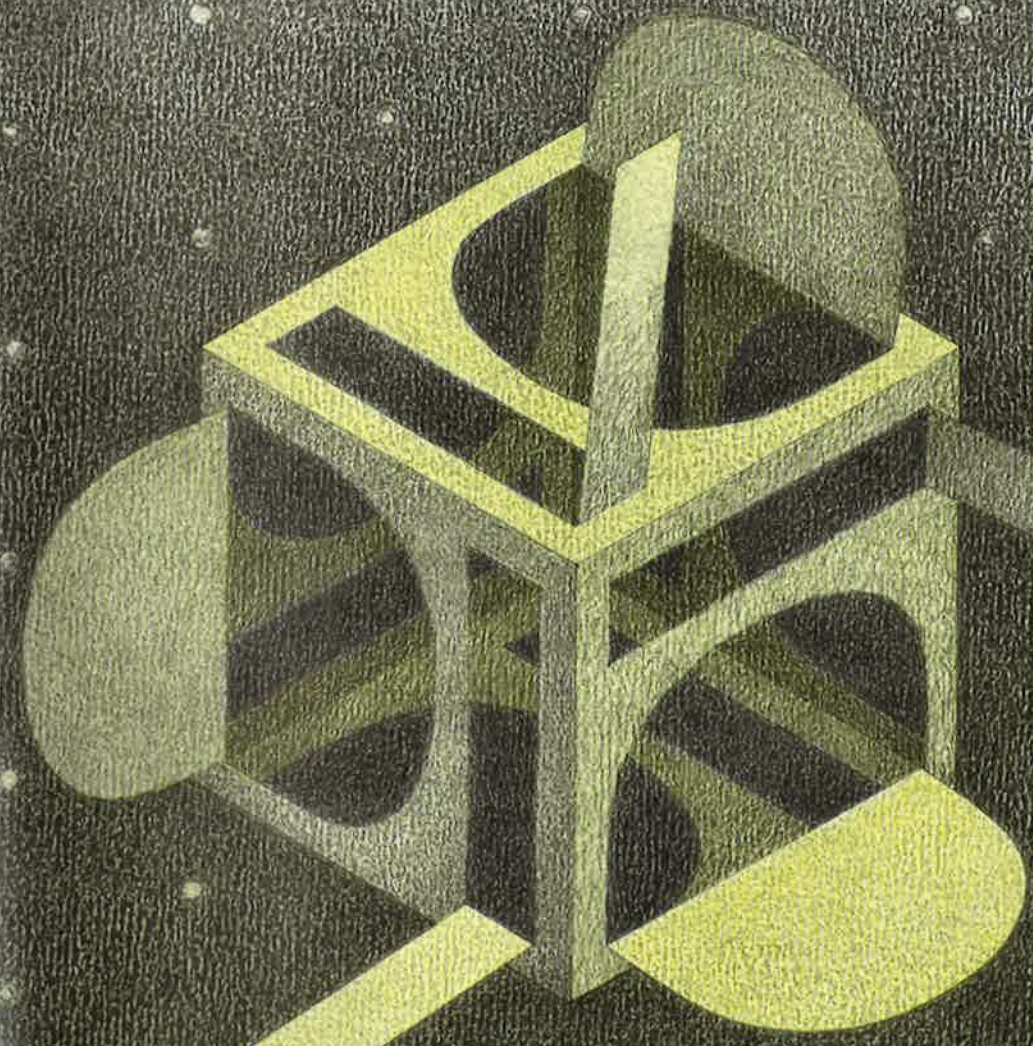

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Volume 31, Number 2, Spring 2015

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Editorial Scope
The journal invites papers that enrich the understanding and practice of design in any area of human endeavor. The orientation of these papers may lie in the investigation of design in the past, present or future. These papers may employ any approach or method that is suited to the exploration of design issues. The journal welcomes papers that give evidence of originality, rigor and significance.

History
Theory
Criticism

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ERRATA

In the Books Received column in the Winter 2015 issue, the opening essay in the book *Made in Italy: Rethinking a Century of Italian Design* edited by Grace Lees-Maffei and Kjetil Fallan, was mistakenly attributed to Kjetil Fallan instead of correctly to Kjetil Fallan and Grace Lees-Maffei.

Introduction

The work assembled in this issue addresses a stimulating variety of topics and themes and frames our understanding of design in provocative and diverse ways.

In recent years *Design Issues* has tracked efforts to expand and refine an appreciation of design as a distinctive way to connect thinking and acting. The first article by Stephanie Wilson and Lisa Zamberlan is a contribution to this on-going process of rendering design less mysterious. In their piece on the design of a hospital bed Søsser Brodersen, Meiken Hansen and Hanne Lindegaard remind us that design in healthcare settings involves more than the design of discrete objects. Designers are involved in what they identify as the configuration of socio-material assemblies.

DJ Huppatz's latest contribution to the journal is a re-assessment of Herbert Simon's seminal book *The Science of Design*. Simon's text has long been considered foundational for design and truly seminal texts demand regular and thoughtful revisiting. Returning to classic texts like Simon's is one way a field like design matures; another useful strategy involves the recovery and presentation of archival materials that enrich our understanding of the interaction between design and technology. John Harwood draws from the papers of Elliot Noyes and Charles and Ray Eames to present documents from the 1950s and 60s that shed new light on a fascinating chapter in the story of computer design. The memoranda Harwood has retrieved belong to an intriguing historical moment when computers were no longer strictly the domain of a small community of scientists and engineers and designers were beginning to grapple with the challenge of making the new technology accessible to the non-specialist.

In reviewing the emergence of critical design as an operative design strategy Matt Malpass probes the implications of the concept of critical design for the traditional understanding of such basic design concepts as function. In their account of design for the Portugal's national airline TAP Leonor Ferrão and Pedro Gentil-Homem demonstrate how design analysis can be used as a lens through which to assess the discrepancy between the ideologically determined image of a country projected through an enterprise such as the national airline and the socio-economic reality that begins just beyond the runway. The relationship between design visions and designed realities is central to the final article included here by Alen Žunić and Fedja Vukić. The authors described how efforts to

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articulate a comprehensive vision of modernism ultimately fared better in the pages of architectural journals than on the building sites of Socialist housing campaigns in Croatia. Film and book reviews by Victor Margolin, John Blakinger, Gökhan Ersan, Peter McNeil and Kees Dorst complete the Table of Contents.

A simple listing of articles, documents and reviews is inadequate to portray this (or any) issue of the journal. The whole is greater than the sum of its parts and a further comment is warranted here. In recent decades a vibrant design culture has emerged. Research is one focused component of this culture. Typically a design researcher comes to the journal in search of material relevant to a particular topic. But readers return to the journal—issue after issue, volume after volume—in search of more than material that supports their research. Design culture thrives on sustained conversations addressing a diversity of topics. The editors of *Design Issues* are committed to supporting this broader concept of design culture. We think of the journal as a forum, an intellectual space in which people passionate about design (or sometimes simply curious) can take the pulse of design discourse, be exposed to areas of inquiry different from their own and reflect on a broad spectrum of design activities and positions. There is an excitement in being part of such an on-going intellectual adventure. Enjoy!

Bruce Brown
Richard Buchanan
Carl DiSalvo
Dennis Doordan
Victor Margolin

Kenji Ekuan 1929–2015

We regret the passing of Kenji Ekuan, Japanese industrial designer, on February 8, 2015 in Tokyo. Ekuan was a leader in promoting industrial design as a profession in Japan and around the world. Trained as a Buddhist monk as well as a designer, Ekuan was a cofounder of GK Design, one of Japan's leading postwar design firms; and as a principal of that firm, he was responsible for the design of myriad products ranging from motorcycles and bicycles to lighting fixtures and musical instruments. One iconic GK product is the Kikkoman soy sauce bottle of 1961. Ekuan was active on international design juries and in Japanese and international design organizations. He was President of the International Council of Societies of Industrial Design (ICSID) from 1976 to 1979. His book *The Aesthetics of the Japanese Lunchbox* (1998) has been widely read by designers and students around the world.

Design for an Unknown Future: Amplified Roles for Collaboration, New Design Knowledge, and Creativity

Stephanie Wilson, Lisa Zamberlan

Introduction

The field of design has expanded significantly in recent years. In addition to engaging in the design of artifacts, designers are applying their skills in a wide range of areas that include organizational design, service design, strategic design, interaction design, and design for social innovation. The rapid development of these areas is, in part, propelled by a broad recognition of design thinking and practice as a significant driver of innovation. This recognition is reflected in the establishment of government-funded design labs, such as MindLab in Denmark and Helsinki Design Lab in Finland. The potential of design to transform the public sector has also recently been recognized in Australia through the development of the Centre for Excellence in Public Service Design.

Although recent research has identified new and emerging roles for design and the designer in the twenty-first century, a number of areas remain underexplored in the literature. This article examines several of these areas, including the designer's role as cocreator in collaborative and interdisciplinary teams, as well as the designer's role in generating new design knowledge and in developing and contributing to cultures of creativity. Examples from practice are used to illuminate the growing importance of these roles in design and for designers as they navigate the complexity of today's design challenges.

Design for an Unknown Future

Educational theorist Ronald Barnett explores the notion of what it means to learn for an unknown future.[1] He describes the context through the notion of supercomplexity. His ideas provide a constructive lens through which to examine the future of design. Barnett notes that of course the future has always been unknown, but that the sense of the unknown has never been as vivid as it is now. A supercomplex world is characterized by uncertainty, unpredictability, contestability, and changeability, and its complexity arises from a multiplicity of frameworks.[2] In the case of education, this situation challenges the notion of well-defined discipline

1 Ronald Barnett, "Learning for an Unknown Future," *Higher Education Research and Development* 31, no. 1 (2012): 65–77.

2 Ronald Barnett, "University Knowledge in an Age of Supercomplexity," *Higher Education* 40 (2000): 409–422.

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Kees Dorst

Linkography: Unfolding the Design Process by Gabriela Goldschmidt (Cambridge, MA: The MIT Press, 2014), ISBN 9780262027199, 208 pages, illustrated, hardcover ($35.00).

This compact and highly readable book, *Linkography: Unfolding the Design Process*, presents a well-developed method for mapping the patterns that can be observed in a designer's behavior, as gleaned from protocol studies of designers at work. Linkography seeks to tease out the links that can be established between design actions ("moves"). Linkographic analysis is based on the content of these moves, but (cleverly) limits the amount of interpretation required by concentrating only on the observable patterns of links between these moves—thus keeping a healthy behaviorist distance in creating an objective description of complex design activities. The analyses and case studies in the book give a fascinating impression of how much sense can be made, and how much insight can be gained, just from studying these patterns of design activity.

But as always, great strength is also accompanied by some disadvantages. The Achilles' heel of linkography lies in its reliance on protocol analysis for providing the basic dataset. From the early 1990s, when protocol analysis was first introduced in design research, questions arose that are still relevant today: Can all design thinking be verbalized (equally)? What do we do with silent periods in the protocol? Do the (inevitably quite brief) protocol sessions give enough validity and reality to the dataset? Protocol analysis has its supporters and detractors, as well as scholars like myself, who feel that, for all its limitations, it sometimes has to be used in the detailed study of design activity when no other empirical research technique will render the amount of detail required to answer the research question.

A further problem arises in interpreting the patterns that can be found through linkography. Expert designers tend to sometimes express incredibly complex constellations of meaning that encapsulate large swathes of the design process in one single word or phrase. While linkography does pick up on this conceptual richness (which is bound to be shown through the many links that all relate to the move in which this central concept was introduced), its pure process focus means that it has no way of delving deeper into the substance or quality of these rich concepts. Thus the exclusive focus on patterns ultimately limits the scope of what linkography can do.

These limitations aside, this book is impressive in the way it uses the solid baseline of observation that linkography provides to address key theories and insights about design. Yet somehow the admirably detailed analyses presented in the book do not seem to lead to new, surprising insights. Does this outcome mean the theories are perfect and complete, or could this absence of new insights be a symptom of a certain circularity in the argument? The problem of circularity might arise because these theories are used both to make sense of the patterns in the linkographs and to validate the "usefulness" of the linkography method itself. The treatment of these theories in the book is something of a missed opportunity. Many of them could do with renewed critical attention, for which linkography could provide the empirical bedrock, as well as a healthy dose of dynamite to facilitate change.

Despite this unrealized potential for change-inducing outcomes, this book is important, and it represents a real step forward in the study of design activities. The mere fact that linkograpy has emerged from design research is worth noting, too. Design research has always "borrowed" research methods from neighboring disciplines, leading to a very disjointed buildup of knowledge and an incredibly messy toolbox for young design researchers. The strong basis of objective analysis that linkography provides will really help ground the findings that can be achieved through other approaches to detailed design research.

Linkography is an offshoot of the classic process-oriented school of design research. Its fundamental strengths and weaknesses come from the fact that it is a purely process-oriented way of understanding design. The questions that arise after reading this book have to do with how to progress from here: Are we now at the end of the road; is this as far as the very detailed study of design processes can bring us? Or, do we now find new ways of understanding these processes?

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Contributors

John R. Blakinger is a doctoral candidate in art history at Stanford University and a Twenty-Four-Month Chester Dale Fellow at the Center for Advanced Study in the Visual Arts in Washington, D.C. He studies the history, theory, and criticism of modern and contemporary art. His dissertation considers the relationship between art, science, and militarism during the Cold War through the work of Gyorgy Kepes. He recently curated an exhibition titled *The New Landscape: Experiments in Light by Gyorgy Kepes* at Stanford's Cantor Arts Center.

Søsser Brodersen is assistant professor at Department of Development and Planning, Aalborg University Copenhagen. She has a Master degree and PhD in Engineering. Her research focus is on the socio-material approach to design and innovation. Her main research areas are user-participation, participatory design and user-driven innovation with special focus on healthcare technologies, marginalized people and multicultural design challenges.

Kees Dorst is professor of Design Innovation at the University of Technology, Sydney, and professor of Entrepreneurial Design at Eindhoven University of Technology, The Netherlands.

Gökhan Ersan is a visual communication designer, design historian, and educator based in Chicago. He holds a PhD in the history of art and design at the University of Illinois, Chicago. His writing explores relationships between technology and design in shaping material culture. He has taught visual communication design at the School of the Art Institute of Chicago since 2001, on topics ranging from book design to information design.

Leonor Ferrão is an historian of Design and Architecture. She is a postdoc fellow in the research *Glossolalia: an alphabet of critical keywords on design* at the Faculty of Architecture, University of Lisbon (FA/UL), funded by *Fundação para a Ciência e Tecnologia* (FCT). She is Assistant Professor at FA/UL and Researcher of the CIAUD (FA/UL). Her main teaching subjects include history of architecture (Modern period), history of design, theory of design and design criticism and creative processes in design. Her main research themes are classicism in architecture and product design theory, criticism, and history.

Rubén Fontana designed this cover of *Design Issues* (Vol. 31, No.2). He is director of Typeface Design Degree at the University of Buenos Aires, and founder and director of the FontanaDiseño Studio. He is editor of the *Tipográfica* magazine. Fontana organized the *Letras Latinas* Biennale in 2004 and 2006, and he designed the typefaces *Fontana*, *Andralis*, *Chaco*, *Palestina*, and *Distéfano*. He was awarded by the Type Directors Club of New York and ATypI; he has also received the Platinum Konex Prize, The National Design Award of Cuba, and Spain's Design Award. Fontana's graphic work is displayed at the Museum of Modern Art of New York.

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John Harwood is Associate Professor of Art for Modern and Contemporary Architectural History and Co-Chair for Art History in the Department of Art at Oberlin College. He is the author of *The Interface: IBM and the Transformation of Corporate Design, 1945–1976* (University of Minnesota Press, 2011), and an editor of Grey Room, a journal of art, architecture, media and politics published by MIT Press.

DJ Huppatz is Senior Lecturer at Swinburne University of Technology's School of Design in Melbourne, Australia. He recently completed an edited collection, *Design: Critical and Primary Sources*, for Bloomsbury.

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