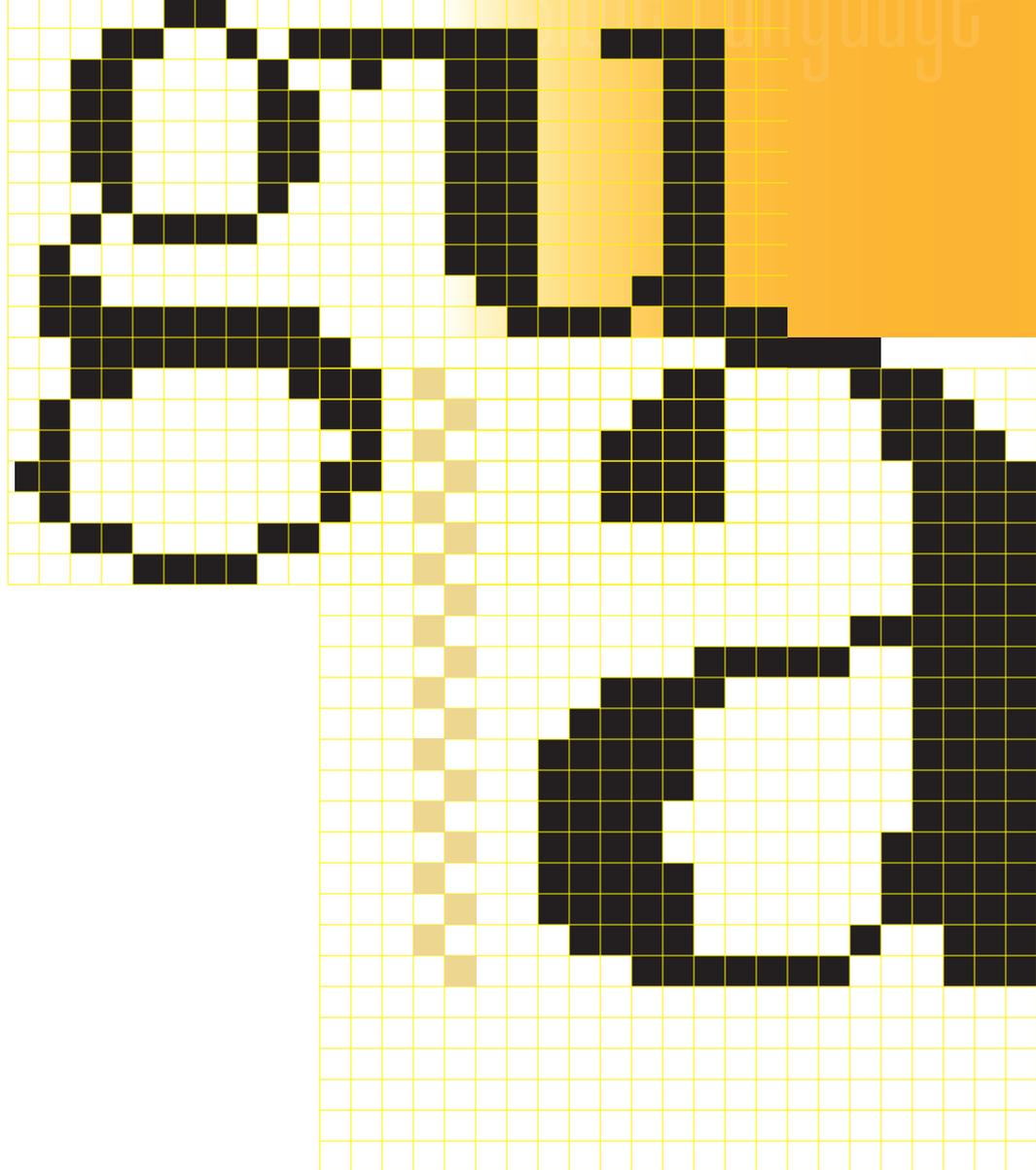


lan



Visible Language

Visible Language

50 • 2

the journal of visual communication research

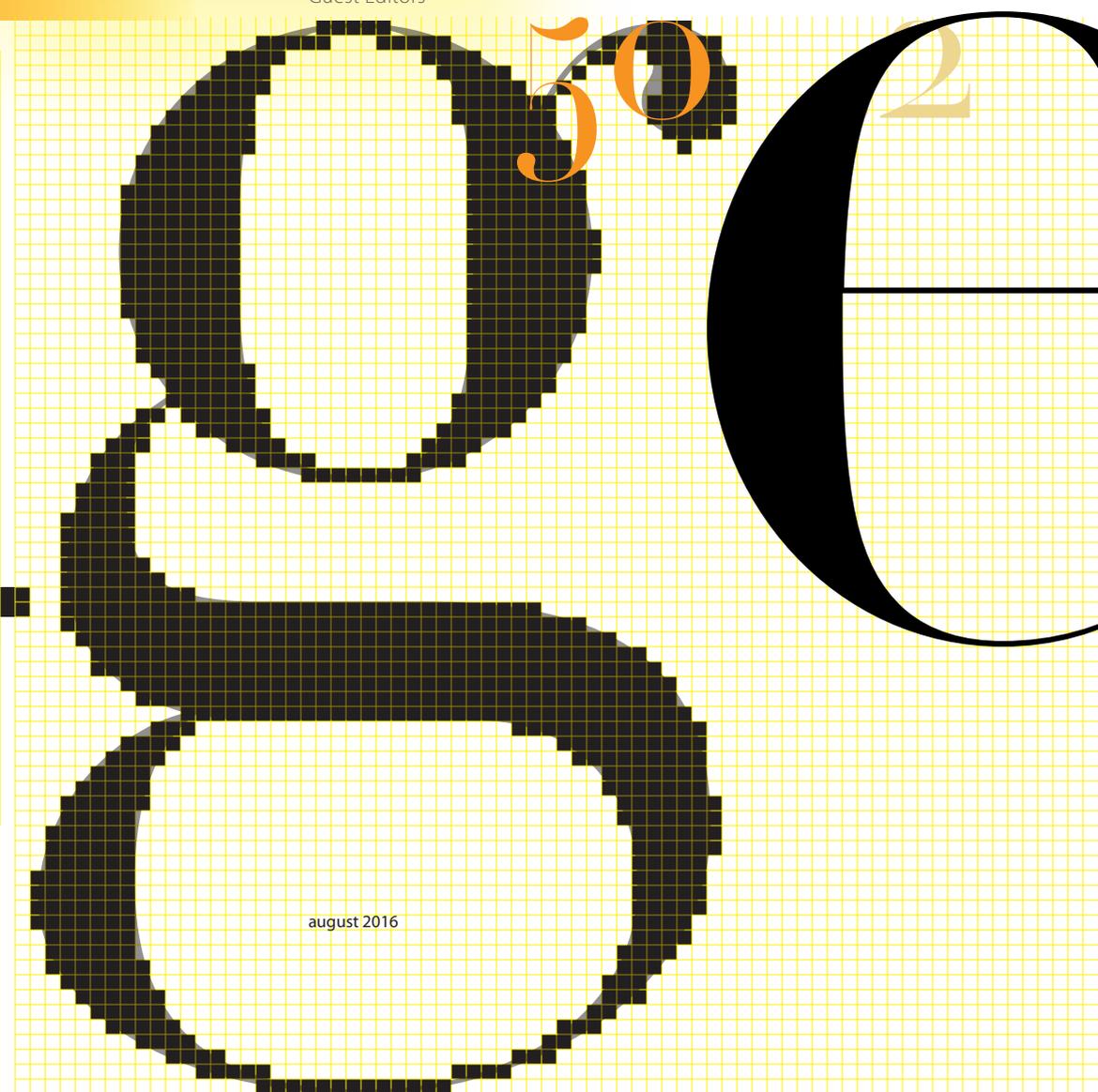
august 2016

Visible Language

the journal of
visual communication
research

special issue:
reflecting of 50 years of Typography

Charles Bigelow and Kevin Larson
Guest Editors



ISSN 0022-2224

Published continuously
since 1967.

august 2016

Visible Language

the journal of
visual communication
research

special issue:
Reflecting on 50 years of Typography

Charles Bigelow and Kevin Larson
Guest Editors

August 2016

Visible Language

50.2 Contents

Advisory Board

Naomi Baron – *The American University, Washington, D.C.*
Michael Bierut – *Pentagram, New York, NY*
Charles Bigelow – *Type designer*
Matthew Carter – *Carter & Cone Type, Cambridge, MA*
Keith Crutcher – *Cincinnati, OH*
Mary Dyson – *University of Reading, UK*
Jorge Frascara – *University of Alberta, Canada / Universidad de las Americas Puebla*
Ken Friedman – *Swinburne University of Technology, Melbourne, Australia*
Michael Golec – *School of the Art Institute of Chicago, Chicago, IL*
Judith Gregory – *University of California-Irvine, Irvine, CA*
Kevin Larson – *Microsoft Advanced Reading Technologies*
Aaron Marcus – *Aaron Marcus & Associates, Berkeley, CA*
Per Mollerup – *Swinburne University of Technology, Melbourne, Australia*
Tom Ockerse – *Rhode Island School of Design, Providence, RI*
Sharon Poggenpohl – *Estes Park, CO*
Michael Renner – *The Basel School of Design – Visual Communication Institute,
Academy of Art and Design, HGK FHNW*
Stan Ruecker – *IIT, Chicago, IL*
Katie Salen – *DePaul University, Chicago, IL*
Peter Storkerson – *Champaign, IL*
Karl van der Waarde – *Avans University, Breda, The Netherlands*
Mike Zender – *University of Cincinnati, Cincinnati, OH*

The Xerox Alto Font Design System

Patrick Baudelaire

12 — 25

The Digital Typefoundry

Matthew Carter

26 — 37

two letters: 1968 & 2016

Schmoller & Matteson

38 — 39

Communication of Mathematics with T_EX

Barbara Beeton, Richard Palais

40 — 51

Commercial at @

James Mosley

52 — 63

Letterform Research: an academic orphan

Sofie Beier

64 — 79

3

.....
special issue: Typography

Orthographic Processing and Reading

Jonathan Grainger

80 — 101

Reading Digital with Low Vision

Gordon E. Legge

102 — 125

Exploring the relationship between language and design:
a study of Hong Kong newspapers : 1968 & 2016

Ryan Lee, Jeanne-Louise Moys

126 — 149

Remembrances of eminent contributors to
Visible Language's first 50 years..

150 — 173

Top 50 typography books of the last 50 years

174 — 177

Book history scholarship:
creation, transmission of knowledge and archives

Danné Ojeda and Mathieu Lommen

180 — 199

Typography Education: Eco-System and Excellence

Reneé Seward and Emily Verba Fischer

200 — 219

reflection — 5

Visible Language

50.2

Reflecting on 50 years of typography

Charles Bigelow and Kevin Larson,
Guest Editors

This year we are celebrating 50 years since *Visible Language* began. Typography has always been a major focus of the journal — its original name was *The Journal of Typographic Research*. The field of typography has radically changed since the journal's debut in 1967:

- Digital technologies have supplanted analog;
- Electronic media have disrupted print;
- e-books compete with paper books;
- Hot-metal type foundries have disappeared along with manufacturers of hot-metal composing machines;
- Digital type foundries have merged into conglomerates;
- Small firms have sprung up to offer new typefaces and typographic designs for new forms of literate media — web sites, apps, e-books, displayed on computers, phones, watches.

Everyday readers who would not have thought about fonts a half-century ago, are now aware of and passionate about fonts and typography. Yet, for all those changes, more people are reading, and perhaps reading more than ever, with the same human eyes as before, so studies of legibility and reading have gained new prominence and importance. For this special issue we are happy to focus on some advances in typographic research during the past 50 years.

Over the history of the journal, scientific research of typography has always been a popular topic. Two issues in 1981, guest edited by psychologist Keith Rayner, are filled with classic scientific papers. The most cited paper in *Visible Language's* history is a 1971 paper by Philip Gough titled "One Second of Reading", which proposed a model of the steps that a reader must accomplish during a single second of reading. One of this issue's guest editors (Larson) was lucky enough to have studied under Gough. This special issue continues in this tradition with articles on scientific studies of reading by Sofie Beier, Jonathan Grainger, and Gordon Legge.

The other guest editor (Bigelow), has a long history with *Visible Language*. He was a student of the journal's original designer, Jack Stauffacher, when it began, and was a guest editor in 1985 for a special issue of

"Computer and The Hand in Type Design," proceedings of a 1983 seminar at Stanford University. A second issue of those proceedings was cancelled, but two of the unpublished papers were retrieved with the generous assistance of the Cary Graphic Arts Collection of Rochester Institute of Technology, and are at last published here. These papers are fascinating archaeological digs into the early history of digital type: the first all-digital type foundry, by Matthew Carter; the invention of a spline and bitmap font editing program on early personal workstations, by Patrick Baudelaire.

Typography is a diverse field, and while we wish we could have included more topics in this issue, we are proud of those that appear here: Barbara Beeton and Richard Palais write about the TeX typesetting system for mathematics; Ryan Lee and Jeanne-Louise Moys analyze English versus Chinese layout in Hong Kong newspapers; James Mosley investigates the history of the now ubiquitous commercial @ sign.

There are also three special features in this issue. The first is a celebration of the lives of some of the typographic luminaries who helped bring this journal to prominence: Fernand Baudin, Edward Catich, John Dreyfus, Adrian Frutiger, Jean Larcher, Alexander Lawson, Robert Middleton, G. Willem Ovink, John W. Seybold, Miles Tinker, Merald Wrolstad, and Hermann Zapf. The second special feature is the result of a survey conducted of the top 50 typography books written in the last 50 years. And, in another instance of typographic time travel, we publish a recent letter to the *Visible Language* editor from type designer Steve Matteson, writing in reply to a 1968 letter to *The Journal of Typographic Research* from Hans Schmoller, renowned Penguin book designer.

Acknowledgements and Thanks

We appreciate the generosity of the Cary Collection for giving us access to the Baudelaire and Carter materials, and for their scanning of the texts and images, for which they waived fees. Personally, we wish to thank Amelia Hugill-Fontanel, the Associate Curator, and Steven Galbraith, the Curator.

"The Rochester Institute of Technology's Cary Graphic Arts Collection is one of the country's premier libraries on graphic communication history and practice. The collection's holdings include primary and secondary resources on the development of the alphabet and writing systems, early book formats and manuscripts, calligraphy, the development of typefaces and their manufacturing technologies, the history and practice of papermaking, typography and book design, printing and illustration processes, bookbinding, posters, and artists' books."

We also wish to thank Stan Nelson for permission to use his photograph of the French type mould of his own manufacture on the title spread of Matthew Carter's article.

Before there was reading there was seeing. *Visible Language* has been concerned with ideas that help define the unique role and properties of visual communication. A basic premise of the journal has been that created visual form is an autonomous system of expression that must be defined and explored on its own terms. Today more than ever people navigate the world and probe life's meaning through visual language. This journal is devoted to enhancing people's experience through the advancement of research and practice of visual communication.

If you are involved in creating or understanding visual communication in any field, we invite your participation in *Visible Language*. While our scope is broad, our disciplinary application is primarily design. Because sensory experience is foundational in design, research in design is often research in the experience of visual form: how it is made, why it is beautiful, how it functions to help people form meaning. Research from many disciplines sheds light on this experience: neuroscience, cognition, perception, psychology, education, communication, informatics, computer science, library science, linguistics. We welcome articles from these disciplines and more.

Published continuously since 1967, *Visible Language* maintains its policy of having no formal editorial affiliation with any professional organization — this requires the continuing, active cooperation of key investigators and practitioners in all of the disciplines that impinge on the journal's mission as stated above.

Website

<http://visiblelanguagejournal.com>

Postmaster:

send address changes to:

circulation manager name

Office of Business Affairs

College of Design, Architecture, Art, and Planning

University of Cincinnati

PO Box 210016

Cincinnati, OH 45221-0016

Published tri-annually in April, August, and December

Mike Zender, *Editor*

University of Cincinnati, School of Design, *Publisher*

Sheri Cottingim, *Publication Manager*

Merald Wrolstad, *Founder*

Sharon Poggenpohl, *Editor Emeritus*

SUBSCRIPTION RATES

United States	Individual	Institutional
1 year	\$35.00	\$65.00
2 year	\$65.00	\$124.00
3 year	\$90.00	\$183.00

Canadian*	Individual	Institutional
1 year	\$44.00	\$ 74.00
2 year	\$83.00	\$142.00
3 year	\$117.00	\$210.00

Foreign**	Individual	Institutional
1 year	\$ 56.00	\$ 86.00
2 year	\$107.00	\$166.00
3 year	\$153.00	\$246.00

Prepayment is required. Make checks payable to University of Cincinnati
Visible Language in U.S. currency only, foreign banks need a U.S.
correspondent bank.

* Canadian subscriptions include additional postage (\$9.00 per year).

**Foreign subscriptions include additional postage (\$21.00 per year).

ISSN 0022-2224

Published continuously since 1967.

BACK COPIES

A limited number of nearly all back numbers is available. The journal website
at <http://visiblelanguagejournal.com> is searchable and lists all issues, past
article PDFs, contents, and abstracts.

COPYRIGHT INFORMATION

Authorization to photocopy items for internal or personal use, or for libraries
and other users registered with the Copyright Clearance Center (CCC) Trans-
actional Reporting Service, provided that the base fee of \$1.00 per article,
plus .10 per page is paid directly to:

CCC

21 Congress Street

Salem, Massachusetts 01970

Telephone 508.744.3350

0022-2224/86 \$1.00 plus .10