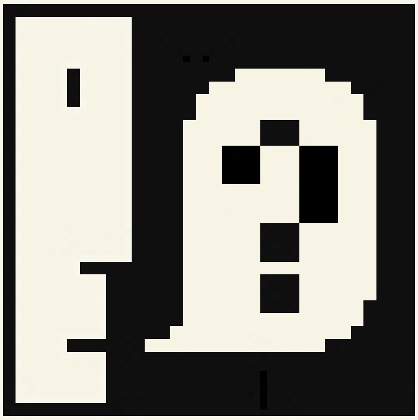
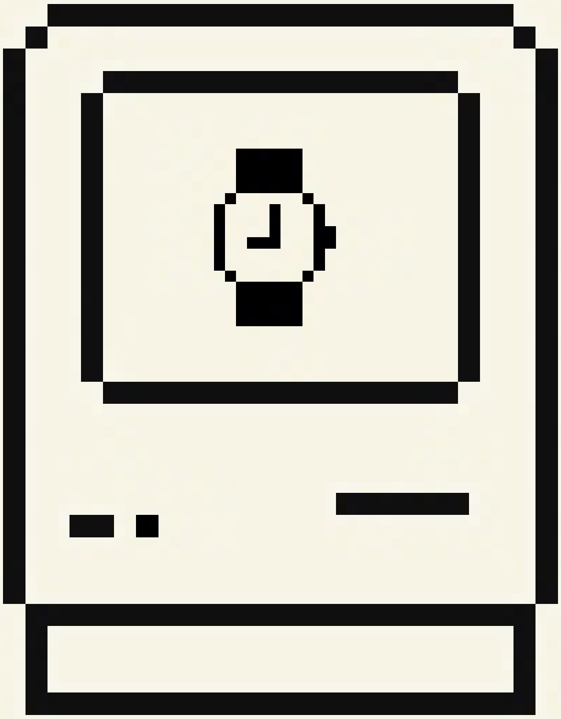
ISSN: 2281-7603
VOL. 4 / N. 8 (2016)

Ais/Design Journal

Storia e Ricerche





SUSAN KARE, ICONE, APPLE 1983

GLI ANNI DEL CONTATTO: GRAPHIC DESIGN, NUOVE TECNOLOGIE E NUOVI MEDIA

AIS/DESIGN JOURNAL
STORIA E RICERCHE
VOL. 4 / N. 8
OTTOBRE 2016

GLI ANNI DEL CONTATTO:
GRAPHIC DESIGN, NUOVE
TECNOLOGIE E NUOVI MEDIA

ISSN
2281-7603

PERIODICITÀ
Semestrale

INDIRIZZO
AIS/Design
c/o Fondazione ISEC
Villa Mylius
Largo Lamarmora
20099 Sesto San Giovanni
(Milano)

SEDE LEGALE
AIS/Design
via Cola di Rienzo, 34
20144 Milano

CONTATTI
journal@aisdesign.org

WEB
www.aisdesign.org/ser/

Ais/Design Journal

Storia e Ricerche

COLOPHON

DIRETTORE

Raimonda Riccini, Università Iuav di Venezia
direttore@aisdesign.org

COMITATO DI DIREZIONE

Fiorella Bulegato, Università Iuav di Venezia
Maddalena Dalla Mura, Università Iuav di Venezia
Carlo Vinti, Università di Camerino
editors@aisdesign.org

COORDINAMENTO REDAZIONALE

Marinella Ferrara, Politecnico di Milano
caporedattore@aisdesign.org

COMITATO SCIENTIFICO

Giovanni Anceschi
Jeremy Aynsley, University of Brighton
Alberto Bassi, Università Iuav di Venezia
Tevfik Balcıoğlu, Yasar Üniversitesi
Giampiero Bosoni, Politecnico di Milano
Bernhard E. Bürdek
François Burkhardt
Anna Calvera, Universitat de Barcelona
Esther Cleven, Klassik Stiftung Weimar
Elena Dellapiana, Politecnico di Torino
Clive Dilnot, Parsons The New School
Grace Lees-Maffei, University of Hertfordshire
Kjetil Fallan, University of Oslo
Silvia Fernandez, Nodo Diseño América Latina
Carma Gorman, University of Texas at Austin
Jonathan Mekinda, University of Illinois at Chicago
Gabriele Monti, Università Iuav di Venezia
Vanni Pasca, past-president AIS/Design
Catharine Rossi, Kingston University
Susan Yelavich, Parsons The New School

REDAZIONE

Letizia Bollini, Università degli Studi di Milano-Bicocca
Rossana Carullo, Politecnico di Bari
Rosa Chiesa, Università Iuav di Venezia
Giulia Ciliberto, Università Iuav di Venezia
Paola Cordera, Politecnico di Milano
Gianluca Grigatti, Università di Genova
Francesco E. Guida, Politecnico di Milano
Luciana Gunetti, Politecnico di Milano
Chiara Lecce, Politecnico di Milano
Chiara Mari, Università Cattolica del Sacro Cuore, Milano
Alfonso Morone, Università degli studi di Napoli Federico II
Susanna Parlato, Università degli studi di Napoli Federico II
Isabella Patti, Università degli Studi di Firenze
Paola Proverbio, Politecnico di Milano
Teresita Scalco, Università Iuav di Venezia

ART DIRECTOR

Daniele Savasta, Yasar Üniversitesi, İzmir

INDICE

EDITORIALE

UNA STORIA DA SCRIVERE, ANZI IN FASE DI SCRITTURA 7
Maddalena Dalla Mura, Raimonda Riccini, Carlo Vinti

SAGGI

WHY IT TOOK SO LONG: DEVELOPING THE DESIGN MINDSET IN THE TECHNOLOGY INDUSTRIES 16
Gillian Crampton Smith

LE PLEIADI: UNA PROSPETTIVA STORICA SULLA COSTELLAZIONE DELLE PROTAGONISTE DELLA RIVOLUZIONE TECNOLOGICA E DEL DESIGN DIGITALE 29
Letizia Bollini

TAVOLIERI DIGITALI E PERCORSI VIDEOLUDICI 44
Isabella Patti

RICERCHE

ALLE ORIGINI DI UNA “VISUALITÀ TECNOLOGICA”: PERCORSI DI RICERCA SULLA GRAFICA DELLE SIGLE TELEVISIVE NEL PRIMO DECENNIO DI TRASMISSIONI RAI 67
Chiara Mari

PIXELS AND PAL: COMPUTER DESIGN FOR DUTCH BROADCAST TELEVISION IN THE EARLY 1980S 90
Liselotte Doeswijk, René Koenders

TOTAL DESIGN AND THE CASE OF THE AESTHEDES COMPUTER: CHANGING THE TOOLS OF DUTCH GRAPHIC DESIGN IN THE 1980S 112
Karin Van Der Heiden

QUALCOSA CHE NON C’È PIÙ E QUALCOSA CHE NON C’È ANCORA: L’AVVENTO DEL COMPUTER E DEL DIGITALE NELLE PAGINE DI LINEA GRAFICA, 1970-2000 131
Maddalena Dalla Mura

VISIONI ALLA RINCORSA DEL FUTURO: IL CAMBIAMENTO TECNOLOGICO NELLA RIVISTA U&LC, 1973-1983 168
Carlo Vinti

MICROSTORIE

“DESIGN BY NUMBERS”: JOHN MAEDA E LA COMPUTAZIONE APPLICATA AL GRAPHIC DESIGN 200
Giulia Ciliberto

DIGITALIZZARE, CATALOGARE, VISUALIZZARE LE COLLEZIONI DI ARTEFATTI GRAFICI PUBBLICITARI: IL CASO DELLA SEZIONE PUBLICITÉ/DESIGN GRAPHIQUE DEL MUSÉE DES ARTS DÉCORATIFS DI PARIGI 213
Simona De Iulio, Fabiola Leone

PALINSESTI

ESTINZIONI, ADATTAMENTI, ESPLORAZIONI E CONVIVENZE: QUATTRO INTERVISTE SUL RUOLO DELLE INNOVAZIONI TECNOLOGICHE NEL GRAPHIC DESIGN ITALIANO 230
Michele Galluzzo

RILETTURE

“DIGITAL TYPE” DI ROBIN KINROSS 258
Luciano Perondi

DIGITAL TYPE 275
Robin Kinross

RECENSIONI

JOHANNA DRUCKER, “GRAPHESIS” 290
Andrea Facchetti

HELEN ARMSTRONG, “DIGITAL DESIGN THEORY” 298
Maddalena Dalla Mura

Riletture

ID: 0814-ENG
RILETTURE

DIGITAL TYPE

Robin Kinross

PAROLE CHIAVE
1990s, Adobe, Foundries, PostScript, Type design

This article, originally published in 1992 in *Eye* magazine, examines some features and phenomena that characterised the advent of digital type. The author retraces the rapid growth of new foundries and enterprises launched by young designers – that pushed onto the sidelines the manufacturing companies that had dominated typeface production through most of the 20th century – as well as the development of larger companies such as Adobe and Apple and the birth of the PostScript language and of new design tools, such as Metafont and Ikarus. Finally, he considers some emerging trends in the design and circulation of typefaces in the digital era.

1. A perspective

The last few years in typography have seen changes as profound as any in the course of its five-hundred-and-fifty-year history. There have been deep shifts in technologies and human processes. The old manufacturing companies that dominated typeface production through most of this century have been swallowed, amalgamated and largely pushed onto the sidelines. Initiatives in design – and in the terms and routines that condition design – have been made rather by a few rapidly growing software and computer hardware companies. Pathbreaking contributions have come from small studios or individual designers working, in every sense, from just a desktop. There have been font wars, corporate piracy, and copyright contravention on a large scale. And in the loose terminology by which we attempt to carve up typographic history, it is clear that during the 1980s, the developed world left behind photographic typography (to which metal had ceded) and entered the era of "digital".

Digital processes had been introduced into typesetting already in the 1970s, but – as always in the development of human inventions – it has taken some time to realise their full implication. "Digital typesetting" means that characters, and indeed any other graphic element, exist only where they can by generated by the rectilinear sweep of a beam, either on or off. As against the apparently infinitely subtle possibilities of a hand-guided engraver cutting punches for metal type, or a pen or brush putting ink down on paper for photographic reproduction, there is an obvious bargain to be made with the technology. You have to settle for the squares that the grid can allot you. At first, in the early years, the deal seemed a bad one. Typefaces were designed within and sometimes even in celebration of the technical constraints of the moment. Instances of this approach were Gerard Unger's *Demos*, Adrian Frutiger's *Breughel*, Matthew Carter's *Video*. Now these ungainly productions are gathering a period charm, like the early essays in high-tech architecture.

Seen from the desktop, one might think of the new era as the Macintosh age: opening exactly in January 1984. This has been the reality for most designers, though it is a partial account. Now that the PC has all but caught up with the Mac, and now that the giant (IBM) has signed a peace treaty with the giant-killer (Apple), it is a view that has lost its truth. The "PostScript age" might be more accurate. It was Adobe's invention of a computer language able to describe text and images within and between processing units and printers, which brought typesetting to the desktop. Typefaces were no longer tied to composing machines. Anyone in possession of font design and editing software could make their own typeface and have text set on a machine that might bear the name "Linotype", but which would be hospitable to any instructions in the common language.

This transgression of commercial boundaries lies at the root of much of the turbulence of the recent period. Here – in the law courts and on the stock markets – the style wars over postmodernism, deconstruction and "legibility" have played no part. The winners have generally been the young companies which have managed to balance commercial self-interest with a generous sharing and spreading of knowledge – reaching out to the vast numbers of those innocent of typography. The prospect then is of huge returns that could never have come from a mean, close-to-the-chest attitude.

The history of Adobe Systems may be the clearest case of the benefits of generosity. The founding partners, Chuck Geschke and John Warnock, left Xerox in the early 1980s to market the computer language (Interpress) they had helped to develop for that company. This language, then named PostScript, was licensed by Adobe to manufacturers of laser printers, notably Apple. At this point Adobe, and Apple too, found themselves getting into typography. PostScript laser printers were fitted out with 35 core fonts – a depressing selection that embodies the sensibilities of safe typographic taste of the mid-1980s. Another index of the state of the art then is Adobe's logo: an unwanted tattoo, outgrown by the company's increasingly sophisticated vision of letterforms.

At that early point in the game, no one seems quite to have perceived the implications for typography. But if a laser printer could output the schlock of *Zapf Chancery*, *Bookman* and *Avant Garde*, by the same token – or the same computer language – it could do the same for any other typeface, given the time and the right software to develop it. The other necessary component, of programs for designing and making up pages, came along quickly. The concept of "desktop publishing" was launched by Aldus Corporation in league with Apple, and gradually it became possible to do serious typography with these tools: weekly magazines and 400-page books, as well as office memos and church newsletters.

2. Design tools

The digital revolution has made possible new ways of designing and making type. The adoption of the terminology of metal typography – fonts, foundries and cutting – may be inaccurate and quaint, but it does suggest a truth. The designer of letterforms on a screen is making their final forms, without the mediation of a further copying or translation process. In this sense, the conditions of digital type design are like those of the hand punchcutter, before the mechanization of type design and production.

Two centres of research lie behind the development of software programs for the digitization of letters. Donald Knuth's Metafont project, based at Stanford University in the Silicon Valley heartland, was of immense theoretical and philosophical interest: witness the published debates around Metafont in the early 1980s. However, in its assumption that typeface characters could be modelled as simple strokes rather than outlines, Metafont followed the wrong horse for practical type design purposes. But it was anyway, as its name suggests, a program for conceiving typefaces rather than for drafting them.

The usable program for manufacturers has proved to be Ikarus, developed through the 1970s by a team led by Peter Karow at URW (Unternehmensberatung Rubow Weber) in Hamburg. In the familiar pattern of typographic development, designers were brought in to bring conscious formal awareness to processes in which these decisions would otherwise have been made by default or by banal imitation. Among others, Hermann Zapf made some contribution to the work at Stanford. At Hamburg in the 1970s, Veronica Elsner joined the team at URW. Travelling around to sort out Ikarus problems on behalf of URW, she became – in Günter Gerhard Lange’s phrase – the nurse of digital typography. (Elsner now has her own firm, in partnership with Günther Flake, producing PostScript typefaces with Ikarus.) It is there in North Germany, rather than on the West Coast, that one might see the best claims on the origins of digital type. In 1990, Ikarus was released by URW in an adaptation for the Macintosh. Before this, Fontographer (from Altsys) had become established as the usual designing and drafting program on the Macintosh. Now, with FontStudio (from Letraset) also on the market, the lay typeface designer is stuck for choice.

3. Foundries

Among the new digital companies, Adobe has seemed – to designers at least – to be the glamorous front runner. Founded in 1983, it has rapidly educated itself in typography: to the point where it now begins to resemble the older typeface manufacturing companies in their heyday, in the role of cultural provider. Adobe’s booklets accompanying their new typefaces are things to keep on a bookshelf rather than in a filing cabinet: complete showings of the typeface, backed up with historical essays, bibliographies, as well as painstakingly designed specimens of the type in action. Next year the first publication from Adobe Press will be a book – *the* book, they hope – by Erik Spiekermann. Primarily responsible for the Adobe Originals have been the company’s two in-house type designers, Carol Twombly and Robert Slimbach. They are of the first generation of digital type designers: Twombly is a graduate from the course at Stanford run by Charles Bigelow, while Slimbach learnt type design on the job at Autologic. Among their peers, they are uniquely privileged in being able to devote all their time to designing.

While Adobe has been in the fast track, Bitstream, founded in 1981, can claim to have been the first company freshly devoting itself to digital type. Two of the founding partners, Matthew Carter and Mike Parker, came originally from England and could draw on deep roots in European typography. If Adobe has had to import typographic culture, through its type advisory panel and through tapping into the letterpress-printing scene in California, Bitstream had it in its blood.

One could develop this argument in some detail through a comparison of *Bitstream Charter*, designed by Matthew Carter, with the *Stone* typeface family, designed by Sumner Stone at Adobe. Both typefaces were released in 1987. Both *Charter* and *Stone* are fresh designs, without particular historical models. Both are fully digital in concept: if their designers started out drawing on paper, they soon got on to working at a screen. And, most importantly, both were designed to take account of the new conditions of digital output: the same forms have to exist on low-resolution laser printers and high-resolution image setters, and are generally tougher and blacker than typefaces used to be made. Both take notice of the fact that quite informal texts now find themselves typeset. *Stone* pursues this requirement to the extent of offering an “informal” variant, for what one might call office typography. But standing out against these common assumptions are different formal visions. Where *Charter* is definite, hard, even a little awkward, Stone opts for the smooth no-problem curve: compare the “a” or the “g” of *Charter* and *Stone Serif*. I used to think that this smoothness in PostScript typefaces was an inevitable function of the Bézier curves that constitute their forms, and made jokes about perfect-bodied Californian type. But the comparison of *Stone* with *Charter*, made with the same technology, suggests that the reasons for creamy smoothness or critical sharpness lie deeper, in the cultural backgrounds of the designers: West Coast or East Coast, America or Europe, drawing or cutting.

Bitstream and Adobe have grown to share the centre stage. One index of their new establishment status is the fact that both Sumner Stone and Matthew Carter have left to set up their own small “foundries”. Still hanging on in the centre are some older companies with roots in making typesetting machinery: Monotype, Linotype-Hell, Berthold, Agfa Compugraphic, Scangraphic. As the compound names suggest, they have been through troubled passages: forced marriages, adoptions and readoptions by transnational controlling corporations. While able to draw on their own rich typeface libraries, this historical baggage has tended to prevent fresh thinking about what might be appropriate in the new conditions. Now and then Monotype stirs itself to issue a booklet that, in usefulness and critical insight, outstrips anything from Adobe. But, even in its trim new guise as Monotype Typography, the forces are against it. Young middle-aged companies such as ITC and Letraset – the latter transnationalized some years ago – which played significant parts in post-metal but pre-digital typography, have been able to keep afloat, to find niches in the new landscape. Thus Letraset have moved into the software market, and ITC continues as a developer and marketer of typeface designs, without the burdens of manufacturing material product. But in the cases of these companies too, there has been little evidence of new design approaches.

Turning to the other, small-scale extreme of the typeface production field — it is there that much of the running has been made. Zuzana Licko’s typefaces for Emigre plotted the growth of one species of the digital child: from a pre-literate baby (typefaces freshly changed for every issue of the magazine) to the first pair of long pants (*Journal Extended*). The early productions were rationalized by reference to the requirements of low-memory computing and low-resolution screen display and printer output, and show considerable ingenuity in juggling with a heavily reduced formal repertoire, to make coherent sets of characters. Now that these constraints no longer obtain, Licko’s work seems to have lost its impetus. Emigre – the magazine and the foundry – has taken on work from other designers, notably Barry Deck and Jeffrey Keedy. So far their typefaces, which are essentially “display” rather than “text”, have not escaped from the cultural ghettos of style magazines and art-gallery publicity: shark-infested waters that do not promise life beyond the end of the year.

For a contrast to these young Americans, one can turn back to Europe to find coevals who seem older – by several hundred years – and much more sophisticated. One thinks first of the Dutch designers who have emerged during the digital years, from colleges in the Hague, Arnhem and (less so) Amsterdam. The difference between the work of the Americans and that of the Dutch is that the former comes out of the brief history of graphic design, while the latter has its base in formal writing and in the long tradition of European type design. This is true even (or especially) of the celebrated *Beowolf* typefaces, of Erik van Blokland and Just van Rossum, which constitute a critique of the tendency to a facile smoothness in PostScript type, and a return of the repressed element of writing. Or take the typeface *Proforma*, completed this year by Petr van Blokland (elder brother of Erik). As its name suggests, it is designed for the special purpose of setting the complex texts of business forms, and is equipped with an exceptionally enlarged character set. The work on *Proforma* included the design of a font editing program (Pika) and has extended over years: only to end in the commissioning firm of Purup Electronics closing its type department. As all its characters confirm, this most technical of exercises is rooted in the disciplines of handwriting. And although he is one of the most computer-literate of designers, Van Blokland is a champion of the old pencil-on-paper methods.

The central figure behind the Dutch typeface renaissance has been the designer and teacher at the Hague Academy, Gerrit Noordzij. In the dull and confused years of photo-typography he seemed to be a voice in the wilderness, proclaiming the primacy of writing behind all letterforms. Only now, through the work of his unruly students, are the best fruits of this new-testament anarchist pedagogue beginning to show. Now retired from teaching, he has become a prolific essayist on typography. Some of his own typefaces will soon be available, through the Enschedé Font Foundry.

In the little village of Dutch typography, family connections recur: the Enschedé venture is being established by Peter Matthias Noordzij, one of Gerrit Noordzij’s sons, and already with one fully fledged typeface under his belt (*PMN Caecilia*, for Linotype-Hell). The Enschedé Font Foundry will give a new-technological lease of life to one of the oldest bearers of the Dutch tradition. The first release, this year, is a version of Bram de Does’s *Trinité*, an extreme exercise in calligraphically delicate forms, made originally for photocomposition. To come from Enschedé will be another, more widely useful typeface by De Does (*Lexicon*), digitized versions of Jan van Krimpen’s typefaces, and of the Rotterdam Metro signing alphabet. Another initiative to mention in this context is the *Dutch Type Library*, which Frank Blokland is selecting for production and marketing by URW in Hamburg. Blokland is another Hague graduate and now a teacher there, but no relation to Petr and Erik van Blokland.

A principal outlet for the young Dutch designers has been the FontShop chain, centred in Berlin. Founded in 1988, FontShop instantly became the designer’s favourite typeface supplier: send your shopping-list down the fax line, and an hour or so later a motorcyclist will hand you the goods. Alongside this bread-and-butter work of rapid supply of a large selection of typefaces, the company has made design initiatives. Grasping the opportunity that digitized information can offer, the magazine *Fuse* publishes typefaces –or notes towards typefaces – for users to interact with and develop themselves. In amongst the novelty items, the company’s own FontFont “label” has put out some serious stuff. Unable to fund development work, it depends on work submitted by hungry young designers. But this is also FontFont’s source of interesting possibility.

The Arnhem designer Martin Majoor's *Scala* stands out as a concerted attempt at a text typeface, without exact historical precedents but rooted in the tradition. In a development that will become increasingly common, as the Europe extends east, Majoor is augmenting *Scala* with a Cyrillic variant. And *Scala* will soon be joined on the FontFont list by Quadraat, from another Arnhem designer, Fred Smeijers. This is a surprising and original variation on old themes, disproving once more the idea that the stream of new roman typefaces might have dried up.

If one had to nominate just one typeface as the face of the time – as *Futura* was, circa 1930 – this could be *Meta*, designed by Erik Spiekermann and released first by FontShop, of which he is a founder and chief partner. *Meta* is the latest manifestation of the typeface that Spiekermann has always been designing: the Deutsche Bundespost letter and ITC Officina were steps along the way. As a thoroughly articulated sanserif, it meets the hard requirements of information design: signing, forms, and tabular setting. But *Meta* is more than just an information-letter: witness its rapid adoption in other contexts, to the extent that almost every new and redesigned magazine has used it. Certainly this is the case in Britain, where, at the last count, just twelve copies of the font had been sold. But then we dreamt the explanation: *Meta* is now installed as one of the core laser-printer fonts, in place of *Helvetica*.

4. Conclusions

Some patterns emerge from this volatile scene. On the most immediate level, one could speculate about the new sensibility that digital typefaces are introducing: after a solid diet of *Times* and *Garamond*, some of the new text faces have a sharper flavour. One obvious material tendency is the dissolution of the typeface manufacturing companies, to be displaced by computing companies learning typography as they go. Now Apple and even Microsoft, which have transformed typography – but by default – are beginning to get conscious about it. In confirmation of another tendency of these times, Apple has begun to draw on the expertise of individual out-of-house designers. Jonathan Hoefler's one-man foundry in New York is at work on new fonts for them. The Stanford teacher Charles Bigelow was given the job of imagining the TrueType (outline) versions of Apple's city-name bitmapped fonts, for use in System 7.

This brings us back to the basic terms of the digital revolution, The "font wars" of the late 1980s ended in a truce. There would be two standard formats for digital letterforms, coexisting peacefully: Adobe's PostScript Type 1 and Apple's TrueType. During the long coming of TrueType, Adobe was encouraged to extend the logic of PostScript, to discover Multiple Masters. With this new tool, some typographers' wish for infinite modifiability in type has come true; or it may just seem to be an unnecessary luxury. So too, TrueType offers infinitely flexible and intelligent typefaces, which in the case of self-inserting ligatures may be good, and in the case of self-deciding swash letters may be pretty daft. Or not daft at all, when one remembers that "non-Latin" is the larger part of the world, and that ideographic and otherwise non-alphabetic typography – in which swashes are communication rather than decoration – has been the poor relation, marginalized in every development in typography since Gutenberg. It is here, outwith Western typography, that the digital revolution will have its greatest effects.

Originally published in *Eye*, 7, 2, 1992, 26-39.
Courtesy of the Author

AIS/DESIGN JOURNAL
STORIA E RICERCHE
VOL. 4 / N. 8
OTTOBRE 2016

GLI ANNI DEL CONTATTO:
GRAPHIC DESIGN, NUOVE
TECNOLOGIE E NUOVI MEDIA

ISSN
2281-7603