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Twenty-Six Not-So-Easy Pieces

Sharon Helmer Poggenpohl

This paper was delivered at the ATypI Conference in the United Kingdom at the University of Reading in September, 1997. Using an abecedary order, the challenge and future of language, typography, and technology in various juxtapositions are examined. Implicit in the presentation is a critical posture that includes comparison of book and screen, comparison of typographic history and future, the need for language reform and user studies and an examination of technology's broad impact on human communication. The twenty-six not-so-easy pieces are intended to make unexpected connections and to provide critical commentary on current practice and expectation.

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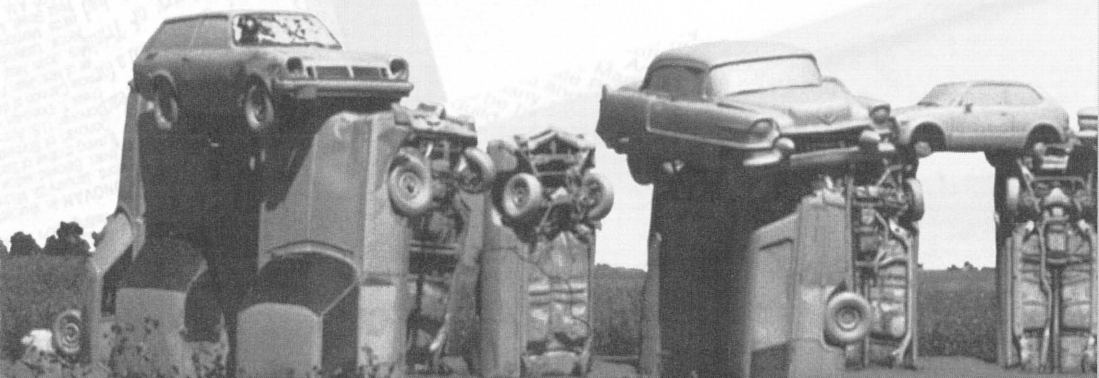
Appropriation

It seems fitting to begin with a gesture to the host country of this ATypI conference even though the gesture takes us far afield of typography. Sometimes by thinking rather obliquely we get new insight about whatever troubling situation we are trying to address – in this case appropriation – which is easily damned, defended, or ignored. Let me draw an analogy to typographic appropriation. Conjure, if you will, an image of Stonehenge in your mind – ancient, created with care to mark the seasons, still controversial with regard to its method of construction – an icon of dramatic scale.

Contrast with this Carhenge on the high plains of Nebraska, created as the activity focus of a family reunion. New, created with attention to structural and spatial imitation, it marks a season in an extended family's life. Easily constructed with machines compared to Stonehenge, it is an ironic comment on American life – a one-line joke.

Now think about all the “appropriated” type faces... the technical translations, the so-called improvements, the energy spent copying and slightly modifying... Are these appropriated faces a sign of creative bankruptcy? Have the possibilities of alphabetic form from a technical, cultural or aesthetic viewpoint been exhausted? Has ironic commentary on the past become the only means for typographic engagement?

See Fonts & faces.



homage to the Book

In his book *The Gutenberg Elegies*, Sven Birketts laments the decline of books. He writes: "A change is upon us – nothing could be clearer. The printed word is part of a vestigial order that we are moving away from – by choice and by societal compulsion. I'm not just talking about disaffected academics, either. This shift is happening throughout our culture, away from the patterns and habits of the printed page and toward a new world distinguished by its reliance on electronic communications."¹

Because we are overwhelmed with the amount of information available to us and the speed with which new information is developed and distributed, we are moving into an era in which it is no longer practical to possess information personally. Value is shifting from possession to the ability to access and use information. Let someone else store it and maintain it. Consequently we will see increased computer use – we will read more on the screen. Reading will be less immersive and more selective.

This century has seen the birth and expansion of the artist's book. Books will not disappear, but will be valued as experiences and desired as possessions. They will return to being special, carefully created objects rather than mass-produced, throw-away, consumable items.



BOOK

print

preformed

permanent

static

sequential

alphabetic

citations

filtered

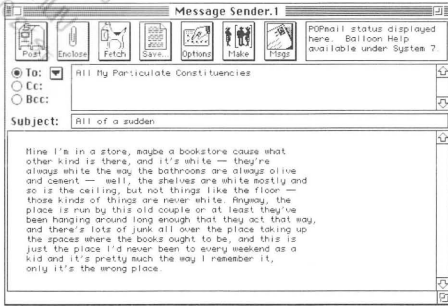
C lack of Conventions & control

The conventions of the book do not translate to the screen – we are adrift in uncharted territory without our alphabetic guide. Where the book is permanent, static, sequential, alphabetic and filtered – the screen is fleeting, animated, hyper-linked, keyworded and – in many cases – unfiltered.

See *Multimedia*.

Preceding pages:

- A *Carhenge, conceived and created by Jim Reinders, was dedicated on the summer solstice of 1987 on the high plains of western Nebraska.*
- B *An artist's book developed at the Rhode Island School of Design, Graphic Design Graduate Studies, in 1991 by Christine Klufits.*



smiley face

Email & emoticons

As early as the late eighteenth century when typography was commonplace and letterforms seldom revealed a calligraphic origin, the impersonality of print was recognized. The author's opinions, hesitations and strength of feeling were not revealed in the neatly ordered typographic presentation.

Two centuries later we find ourselves using email – the most emaciated typographic form. This is a region of uninflected language, quick, digitally pure ASCII, bloodless, immediate, but empty of affect. Enter the emoticon. Also pure ASCII, but quirky, conveying affect, playing on our ability to see and read faces nearly everywhere.

See *Handwriting*.

censored

laughing

Fonts & faces

While technology opens new possibilities, it is measured by the quality of the just superseded technique. Phototypography was compared to metal type and found wanting. Nevertheless, when phototype commercially came on the scene in the sixties, it provided easier production and an economic advantage. This simpler and faster photographic reproduction from drawing to final form made type design feasible for more designers to consider. Both real and imagined type designers emerged from the woodwork – a “flowering” of new faces became available. It is interesting to note that the special craft and cost of production in casting a metal face served as a gatekeeper, enhancing quality and limiting the quantity of faces.

Phototypography opened the floodgates of type design. A quick reference phototype catalog from this era presents the sublime and the ridiculous in alphabetical order.² Among my favorites are Split Ends which foreshadowed the “shampoo planet” generation;³ Watusi Drop Shadow which deserves recognition for being politically incorrect. Some designs defy both reading and description.

And now we have digital production with scans, curve algorithms, software assists, et cetera.

See Appropriation.



Handwriting

A long history of scorn is attached to writing clearly and legibly. Penmanship was looked at as a mechanical skill with humble people earning a living through its use. Herman Melville's short story "Bartleby the Scrivener" gives a poignant account of such a person, one who today we would describe as homeless. In the past, the cultivation of an illegible hand was actively pursued as a sign of good breeding – a letter that was inconveniently read served to indicate the gentility of the author.⁴ Today we hardly need to cultivate a difficult hand – it seems to happen quite naturally.

Periodically in the business press, we see statistics demonstrating time and money lost due to illegible handwriting. Does the speed and efficiency of using email compensate for this loss? Can voice verification or a retinal scan replace the demonstration of authenticity we attach to handwriting? From a humanistic standpoint what is lost? Have you sent or received via email a sympathy note or congratulations on some personal milestone? It is an odd experience and one usually accompanied by an apology for its impersonality. Children increasingly learn keyboarding at an ever earlier age to accommodate computer use. Does their development of a "hand" suffer?

Despite the recognition at the Type90 conference in Oxford that individuals could create personal typefaces based on their handwriting, there is something odd about mechanizing the idiosyncrasies of personal script. The real tension between handwriting and typography revolves around "presence" and efficiency – formal visual eloquence and utility – the immediacy of one's individual marks or the intervention of digital equipment.

See Email & emoticons.

the hand and the trace



Institution

Institutions are subject to change, but they change ever so slowly. On a macro level there is the library and on a micro level there is the book with the thorny institution of copyright on a sub-micro level. The missions of these three institutions are related but they are now being undermined by the technological developments of new media.

The ability to “scan, save and capture” serves to archive ideas and images for future reference. This is not unlike the release of scholarly energy turned from “copying manuscripts” to thinking, expanding and generating new material after the printed book became common. With the saved elements an argument can be built or weight can be referentially added to a position or viewpoint. But these captured items can also serve as appropriated thought and image which too easily pass for an original in the hands of an intellectual pirate.

Here is the “new” Chicago Public Library – it looks like a remnant from the distant past. The bad news is that it is built to last. What is a library in the twenty-first century? What is a book in this century? Can intellectual property be protected? Our inherited institutions seem out of step with present circumstances and require a critical examination.

See Appropriation, Book, Googolbyte.

third generation site

digi-marks

hot bots

Jargon

In his book *Plastic Words, The Tyranny of a Modular Language*, Uwe Poerksen states: "Language crystallizes consciousness and forms an intermediate world... it institutionalizes and sanctions social and historical practise."⁵ He goes on to discuss the aura that words have and how "expert" speech colonizes the vernacular. Technology in particular exports its vocabulary to shed a strange new light on things. I listen to the technotalk of some of my colleagues and pick up *Wired* magazine on occasion to tune in on the buzz. Jargon serves to make a group cohesive – it establishes group identity. Jargon may ultimately replace the geographical diversity of language.

immersive telepresence

AVATARS

¹ The Harold Washii Library, Chicago's central downtown library.



Klingon

People with their various languages are in increasing contact and conflict. Some twenty-eight hundred languages are in use today and of these about four-hundred have a written form – even fewer have a typographic form. It is sobering to think that there may have been as many as ten-thousand languages several centuries ago when people were more isolated.⁶ Let me give you a personal example of languages in contact.

Several years ago I was traveling in Tanzania and stopped at a bar in Arusha where a television was playing an old Elvis Presley movie set in Mexico. It was originally filmed in English, but was dubbed in Spanish with Swahili subtitles. I wondered what the Tanzanians understood about the American culture of the 1960s and what they knew about the conflicting ideas of American independence, with its counterculture expression, in relation to the more traditional cultural norms of Mexico. I wondered whether the translation to Swahili was carefully done. Cultures in contact: American, Mexican, and African. Languages in contact: English, Spanish and Swahili.

There have been numerous attempts to invent an international language that would be easy to learn and equitable to all national languages. All these attempts have failed. I.A. Richards summed up the practical problem with artificial languages: "If you are going to the trouble of learning a language you need to feel that you will get a return for your toil this very year. A man may plant an orchard and wait six years for his apples: but six months is long enough to wait for verbs and prepositions to bear fruit. You do not want access merely to a limited and artificial literature, or to a few other speakers and correspondents. You want a vast and undelayed expansion of your contacts... The realization that the speakers of any artificial language are unlikely to increase as rapidly as the inhabitants, say, of Madagascar, is a fatal damper."

Klingon

Buoyed by the use of computers to break codes during World War II, scientists thought that computer translation of natural language was just around the corner, but the problem has proved more difficult than anticipated. Current translation programs afford a head start in translation but fall short of an automatic solution. Insightful translations do not result from simple correspondence between languages but from an understanding of context and consideration of the dispositions the words evoke.⁷

Klingon? Here is an example of an international – nay, intergalactic – language. This artificial language of *Star Trek* fame was created by linguists based on their best understanding of language tradition. While you may not consider it a serious contender, introducing a new international language that equally disadvantages all and that is available under the guise of “fun” or marginal behavior has a certain appeal.

See *Language reform*.

Do you
English
speak
Klingon?

Language reform

As the tempo of life accelerates, sentences are getting shorter and syntax is getting simpler. Over the past four centuries, English sentences have become dramatically shorter, dropping from fifty words to twenty with a structure that increasingly relies on juxtaposition.⁸ We don't know the long-term impact of electronic media including speech and email on written English, nevertheless language is dynamic and subject to change. The question is should we actively alter it or just monitor its inevitable natural evolution.

There are at least two obvious routes to language reform: spelling reform and rationalizing the relationship between sounds and characters. Both rationalize orthography. English spelling was debated as far back as the sixteenth century and only began to approach standardization with Johnson's *Dictionary* in 1755. User-friendly English spelling does not exist. This has an impact on literacy acquisition for natives and second language users alike.

At the ATypI conference in Oxford in 1990, Walter Jungkind proposed to address language reform directly by examining the sound-character relationships between English and the roman alphabet. We know some sounds are represented in multiple ways – we know some characters are in this sense redundant. Others, including George Bernard Shaw and Herbert Bayer, have made similar observations. Some have proposed entirely new writing systems, while others, like Herbert Bayer, have proposed modifying the existing character set.⁹ While the problem of representing the sound/image relationship has been recognized, there has been no serious discussion of a solution or a strategy for its implementation.

FORMED
DARKA
TENSIN
CONDITIN
WRITIN
HAN
TRANSITQ

In contrast, the Korean language, Hangul, was reformed in 1446 to replace Chinese ideograms. Its alphabet consists of twenty-eight characters that clearly differentiate consonants, which are compact and geometric, from vowels, which are largely linear. The simplicity and logic of the written language makes it easy to learn. Phonological analysis demonstrates that Hangul was the product of deliberate planning.¹⁰

Ritng

Ritng systems ar
an esential
elemnt of modrn
comunications
tecnolojy, and
english spelng is
therfor a lejitmat
subject for
reserch and
developmnt to
improve it. Setng
up such reserch
faces problms...

Recently in the *New York Times*, Spanish author Gabriel García Márquez wrote a wonderful Op-Ed piece called “Words Are in a Hurry, Get Out of the Way.” In it he says: “We [must] simplify our grammar before our grammar simplifies us. Let us humanize its rules; accept from our indigenous languages... the great, enriching lessons they can teach us; assimilate with speed and efficiency technical neologisms before they seep in, undigested; ...let us discard orthography and bring more rationality to written accent marks...”¹¹ He was, of course, referring to Spanish.

Language should be an enabling technology.¹² It continues to change – why not address the problem of language reform and direct change to enable easier acquisition of literacy?

See Klingon.

L A sample of modified characters in Herbert Bayer's basic alphabet, 1959. An example of Upwards' Cut Spelling which takes removal of surplus letters as far as possible.

M

Multimedia

As a species we have moved through various stages in sharing information. The invention of writing gradually replaced oral memory. Since Gutenberg text has held a privileged position. But now things are changing. Scholars have written about the relationship between the sensory structure of information and human cognition. Learning theory tells us that engaging more than one sense – taking a multi-channel approach – enhances memory and learning.

New media presents us with a multi-channel approach to the delivery of information. But as yet we have no model of when to write, or read, or speak, or show or move aside from the computer to manipulate a real tactile world. Working through the possibilities will help to develop the conventions and controls (mentioned earlier as “C”) that are missing at this time. What we must remember is that *we* are the measure of what is good – technology should not dominate us.

See Conventions & control.



N

Navajo

During World War II, Navajo indians from the southwestern United States were code-talkers in the Pacific war theater. At this time only a handful of non-indians spoke Navajo. Using a natural language among native speakers who were also bilingual in English provided speed and efficiency in transmitting information. The integrity of the code-talker transmissions was never broken by the Japanese who thought they were working on an artificial code.¹³

Languages without writing systems are disappearing. Their disappearance is a loss from the standpoint of understanding the variety of human experience. Among the most active agents for the development of writing systems for oral languages are missionaries. An example of a “missionary script” is the Inuit writing system developed by Anglicans in Canada’s eastern arctic as early as the mid-nineteenth century. It is a syllabic approach to writing much favored by the missionaries as it is easy to learn and minimal literacy can be achieved quickly.¹⁴ In contrast to the more familiar appearance of Navajo, Inuit syllabic text looks indisputably different and is distinct from the dominant colonial language.

See Klingon, *Language reform*.

Ako ánaábizhdoo’niid,

Nihí daolchijihgo

nihí’éél’j’ t’áá

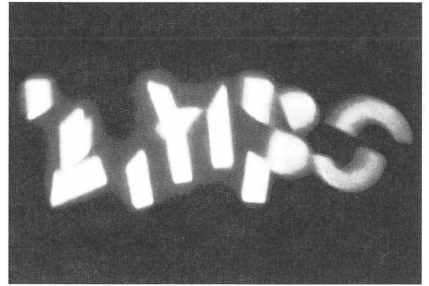
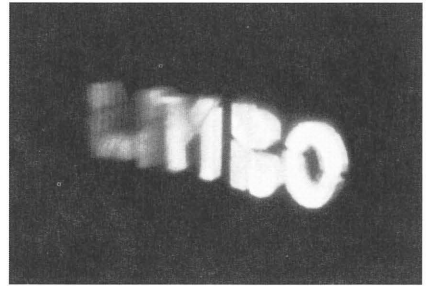
dayínóhtá doo

biniyé Diyin God yee

has’áanii nahj kódał’j’!

M Images developed at the Rhode Island School of Design, Graphic Design Graduate Studies, in 1989 by Laurel Shoemaker.

N Contrasting visible languages: Navajo, which uses a modified roman alphabet, and Inuit, which uses an invented set of geometric characters.



Orality

Secondary orality, a concept developed by Walter Ong,¹⁵ reflects on the nature of the oral in contemporary culture. He finds it is not direct and spontaneous – much of both radio and television is delivered from a written script. In primary orality, speech drives writing, now writing drives speech and we have come full circle.

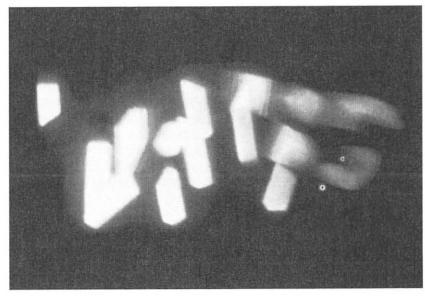


P

Poetry

Poetry has a long history of challenging language norms. Since Apollinaire and Mallarmé, poetry has been challenging typographic and visible language presentation norms as well. Eduardo Kac is a contemporary poet who follows in that tradition by exploring new media poetry. His holopoetry is at the leading edge of interactive media. The viewer/reader sees the poem in space and time responsive to his or her movement and position. The poem reveals itself not linearly or simultaneously but through fragments. According to the poet, "what matters is the creation of a new syntax, exploring mobility, non-linearity, interactivity, fluidity, discontinuity and dynamic behavior only possible in holographic space-time."¹⁶ Poetry is about pushing limits, aesthetics, transcendence – even communication. Our attention is thus drawn to poetic exploration that uses technology positively, not for translation of past conventions, but to open new language transactions.

See *Multimedia*.



O Images developed at the Rhode Island School of Design, Graphic Design Graduate Studies, in 1988 by Lisa Aronson.
P Eduardo Kac's 1990 white light transmission computer holopoem, "Souvenir d'Andromeda."

Q

Quality

To create or appreciate quality takes time, attention and an understanding of context. Quality is an attribute of experience – the interaction between a person and aspects of the world.

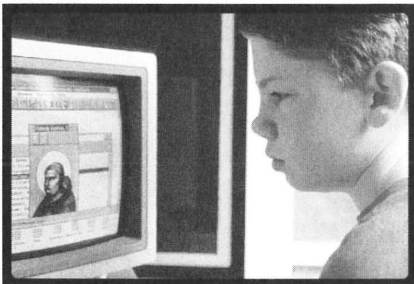


R

Reflection

There is a substantial difference between the book and the screen in terms of reflection or the thoughtful consideration of what information means and how it connects to other ideas. Teachers are particularly concerned about this with regard to children and learning. They observe that children seem to demand action from the screen and tend to click around looking for it rather than reflecting on what is being communicated. There is a mania attached to the computer screen that is counterproductive.

The computer controls the situation – too much is possible, too much is expected. Despite the obvious attractions of color, movement, sound and surprise – teachers question what is productively learned. It may be that computer tools for learning are less effective for solo learning and more useful in collaborative learning.



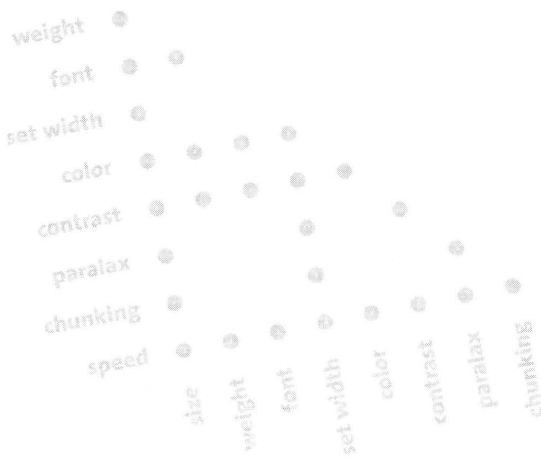
Storage and speed

In Ray Bradbury's science fiction dystopia *Fahrenheit 451*, firemen burned books. The counterculture escaped to the woods and memorized what books they could save, in essence becoming living books. Here memory is biological wetware.

Gutenberg gave us multiple, identical copies and increased the survival potential of valued information in a physical distributed memory bank. Our libraries contain both treasured books from centuries ago and the latest releases. But now our collective memory is subject to a newer technology – the computer. It is prudent for us to consider what is more reliable: our personal and collective biological wetware, physical books or the ever-changing digital software and hardware storage?

As I open a drawer containing a decade of digital records, I am forced to consider whether indeed I can still open records made on now obsolete computers and whether the backward compatibility of software programs really will work over time. I come face-to-face with forced obsolescence, my dependency on technological tools, information loss and the consideration of its replacement value. Technology is opting for speed rather than reliability.

See *Googolbyte, Institutions*.



Font a a a a a a a
Size a a a a a a a
Weight a a a a a a a



Tailoring typography

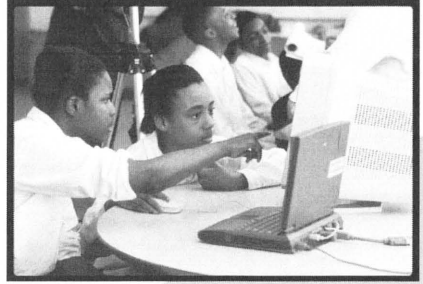
Print brought centralized control of information and its visual presentation to a culmination. The digital world of the computer has subverted this centralized control. Yet another change in control and authority may be in the offing. Donald Knuth developed *metafont*, a logical parametric approach to specifying and controlling the variables of letterform construction.¹⁷ This contributed to the digital revolution in type design. Type designers and typographers could fine-tune the visual appearance of typography based on their own vision and aesthetic. Typographic control remained the province of the originator of a message.

But what about the reader? In the future it may be possible to tailor one's reading on the computer based on ergonomic, physiological and affective preferences. Screens are already hand-sized as well as environmental in scale. Perhaps a smart agent observes our preferences and learns to tune the screen for us. Perhaps there are defaults based on reading genre like stock market reports, news, mysteries, poetry, etc.

The tailoring could get quite specific based on physical human factors relating to the equipment one has, one's position relative to the screen, ambient light levels and so forth. Even visual acuity could be taken into account with correction for near- or far-sightedness, color blindness, glaucoma or even something dynamic like fatigue. For the user, the beauty of being able to personally tailor the typography means that they will not have to accept someone else's typographic choice, they will not have to make whatever crude adjustments are possible, or give up on the task at hand.

Adjustment variables might include size, weight, font, speed, parallax, set width, chunking, color and contrast. These may seem fairly predictable, but it is the subtlety of their inter-connections that create the challenge in conceiving of a user-centered typography.

See User studies.



User studies

Tailoring typography is user (reader) centered. We are moving past the idea that readers are passive recipients of what we give them. They actively co-create the communication as they read. Technological changes now provide the means to accommodate the reader – the other half of the communication equation. At the Institute of Design in Chicago where I teach we are routinely engaged in user studies. We create communication prototypes and bring them into the field to see how users react to them. Using techniques from video ethnography, we tape the session for further review and adjust the design based on what we learn from our observation. This is an iterative process – one that continues until the user is at ease with the prototype.

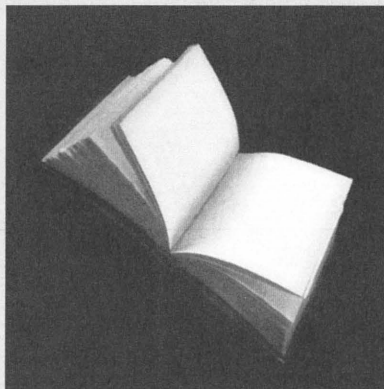
Robin Kinross, in his readable little book *Fellow Readers*, argues for a conversational approach to typographic design as opposed to a postmodern, interpretive and idiosyncratic approach to typographic design.¹⁸ Each of these approaches marks an extreme. On the one hand a purely conversational approach may easily be limited by existing conventions which may or may not be conversationally appropriate. On the other hand a purely idiosyncratic approach often does not respect the reader's time and energy. User studies are a way to mediate between these two extremes and offer a method with which convention can be challenged or interpretive approaches can be fine tuned.

U Real students "use" a prototype while they are observed.

See *Multimedia, Quality, Tailoring typography*.

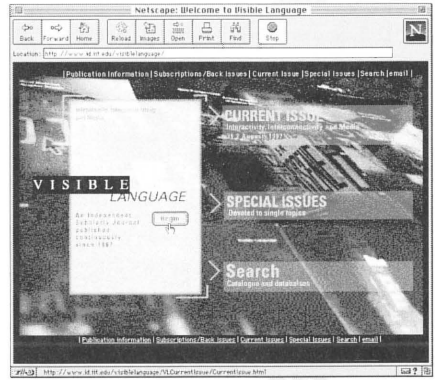
Visible Language *New Perspectives:*

International, interdisciplinary,
published continuously since 1967,
the journal *Visible Language* is interested in the inter-related ideas of typography, technology, language and human communication. This abcedary demonstrates some of the journal's current interests.



Website

Caught between page and screen, *Visible Language* is on the web for your reading pleasure and to assist and stimulate continuing research in the relationship between language, typography, technology and human communication. Unlike the publication of a journal, a website is never complete. The real question is how often it will change and will the change be meaningful or meaningless. Technology is changing our expectations with regard to information: immediacy and change are valued over reliability and reflection. The website is an experiment, a site where new media and communication come into contact and take form, even if they are not quite ready for full flight.



Xenophobia

Xenophobia is definitely out. Cosmopolitan acceptance of and interest in other cultures and languages is in. Multilingual texts will increase. Sue Walker's work at this university, *Building Bridges: Multilingual Resources for Children*, examines the need for equal dignity and presence in multilingual texts even for children.¹⁹

See Klingon.

Y

Yoyoing

Many of us will yoyo – move back and forth – between the page and the screen. It is easy to become caught between the screen and the page, but it is important that we recognize and remember the differences in context between the two and do not try to graft the characteristics of the page onto the screen or the screen onto the page. They are truly different.

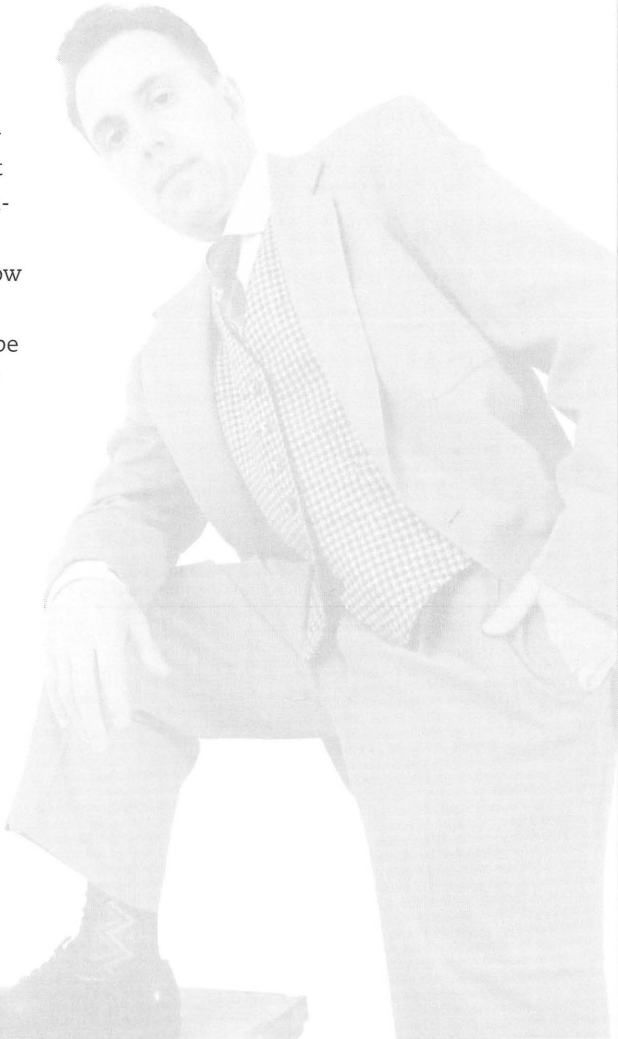
See *Book, Multimedia*.

Z

Zootsuit or zeitgeist

Zootsuit or zeitgeist concludes this listing. The former may need an explanation. A zootsuit is a flashy suit of extreme cut consisting of a thigh-length jacket with wide padded shoulders and peg pants with narrow cuffs. What is needed more zootsuits – more eccentric and novel type faces – or the search for zeitgeist or that which characterizes the age? From my perspective, zootsuiting means running in place, while the search for zeitgeist in this time of change with regard to language, technology and global human communication moves us into the future – but a future that may be difficult to humanely control.

See *Fonts & faces*.



Notes

- 1 Birkerts, S. 1994. *The Gutenberg Elegies*. Boston: Faber & Faber.
- 2 Lettergraphics' *Do a Comp* workbook examples from the late 1960s.
- 3 Douglas Coupland wrote two books both addressed to the children of baby-boomers. He labeled these children "generation x." See Coupland. 1993. *Generation X: Tales for an Accelerated Culture*. New York: St. Martin's Press. Coupland. 1992. *Shampoo Planet*. New York: Pocket Books.
- 4 Thornton, T.P. 1996. *Handwriting in America, A Cultural History*. New Haven: Yale University Press.
- 5 Poerksen, U. 1995. *Plastic Words, The Tyranny of a Modular Language*. J. Mason and D. Cayley, trans. University Park: Pennsylvania State University Press
- 6 Berlitz, C. 1982. *Native Tongues*. New York: Grosset & Dunlap.
- 7 Poggenpohl, S. 1995. The Dilemma of Communicating – Globally. *Design Innovation for Global Competition*. Chicago: ID Press.
- 8 Haussamen, B. 1994. The Future of the English Sentence. *Visible Language* 28: 1, 4–25. See also Yule, V. 1994. Problems That Face Research in the Design of English Spelling. *Visible Language* 28: 1, 26–47.
- 9 Burnett, K. 1990. Communication with Visual Sound: Herbert Bayer and the Design of Type. *Visible Language* 24: 3/4, 298–333.
- 10 Daniels, P.T., and Bright, W. 1996. *The World's Writing Systems*. New York: Oxford University Press.
- 11 Márquez, G.G. 1997. Words Are in a Hurry, Get Out of the Way. *New York Times*, August 3.
- 12 Poggenpohl, The Dilemma of Communicating – Globally.
- 13 Paul, D.A. 1973. *The Navajo Code Talkers*. Philadelphia: Dorrance and Company.
- 14 Daniels, et al., *The World's Writing Systems*.
- 15 Ong, W.J. 1977. *Interfaces of the Word*. Ithaca: Cornell University Press.
- 16 Kac, E. 1996. Holopoetry. *Visible Language* 30: 2, 184–213.
- 17 Knuth, D. 1979. *Tex and Metafont*. Bedford, MA: Digital Press.
- 18 Kinross, R. 1994. *Fellow Readers: Notes on Multiplied Language*. London: Hyphen Press.
- 19 Walker, S., et al. 1995. *Building Bridges: Multilingual Resources for Children*. Clevedon: Multilingual Matters, Ltd. See also by the same authors, *Designing Bilingual Books for Children*. *Visible Language* 30: 3, 268–283.

