

Finally. The second printing of a visual thinking classic.

# Visual Language: Global Communication for the 21st Century

by Robert E. Horn

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“You won’t understand the effect of computers and technology on how 21st century people will communicate without this book.”

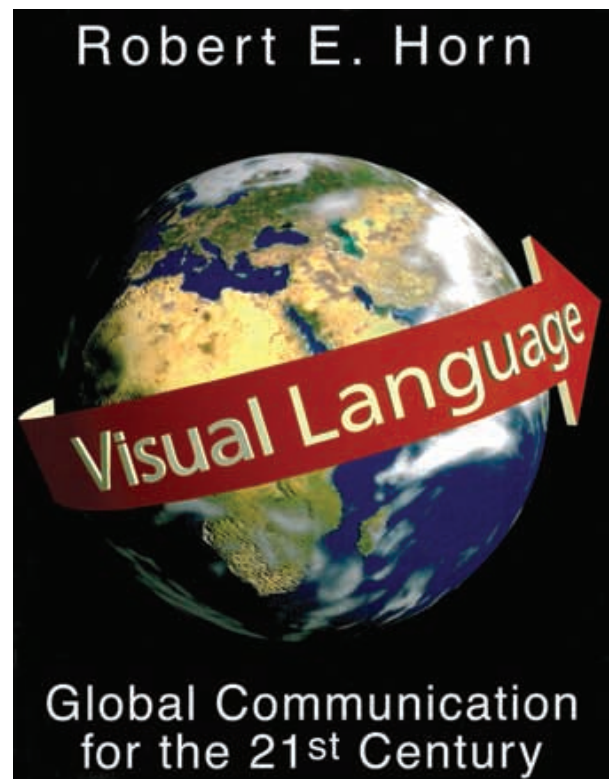
—Walter Truett Anderson, Author, *Reality Isn't What It Used To Be*

“...a paradigm-busting, pathfinding, boundary-crossing, far-out book...”

—Robert Lucas, Managing Editor, *Content Magazine*

“A book to keep close at hand! ...the visual language Horn describes... facilitates more effective communication and learning not only in the field of education, but also in business, science, and technology.”

—*New Horizons Online Journal*





## BOOK REVIEW:

# Visual Language: Global Communication for the 21st Century

by Robert E. Horn

Reviewed by James M. Dubinsky, Virginia Tech

From *Technical Communication Quarterly: Journal of the Association of Teachers of Technical Writing* | Summer, 2000

In 1989, Karen Schriver, writing as a guest editor for *Technical Communication*, laid out a few critical challenges that technical communicators would face in the decade that lay ahead. Her primary focus was the area of document design; she explained that “text” meant “oral and written, and both visual and verbal” and that technical communicators needed a research agenda that focused in part on “creating and integrating visual and verbal text to meet the readers’ various and frequently changing needs”. Since then, primarily due to the information explosion related to the advent of the World Wide Web and the proliferation of computers and multimedia software, we’ve seen progress toward the integration Schriver described. However, despite that progress, no one has integrated the visual and verbal completely. While several scholars and practitioners have spoken of a visual language (i.e., Kostelnick and Roberts; Tufte), no one had presented a visual language in such a way that readers could actually envision what it would look like. Until now. In his recent book, which some are calling a landmark text, Robert E. Horn does more than talk about integrating the verbal and the visual, he accomplishes the integration fully and uses the visual language he describes as the language of choice in the text.

Horn, formerly CEO of Information Mapping, Inc., and currently a visiting scholar at the Program on People, Computers, and Design in the Center for the Study of Language and Information, Stanford University, has written a new kind of book.

He claims that an entirely new language, a visual language “based on the tight integration of words and visual elements,” is emerging worldwide, and it is “rapidly becoming the language of the world wide web”. His goals in this book are to “investigate the properties of visual language” and to encourage people to begin using more visual language in their communications.

Horn divides his book into eight chapters, and the progression is quite logical. In the first two chapters, he describes the emergence of this new visual language and provides a brief history of its various components. In the next five, he describes the language’s emerging syntax and semantics and provides an overview of its practical applications. In the final chapter, he concludes with a look at the future of communication, preparing readers for “the global language of the 21st Century.”

As I indicated earlier, in Horn’s book, you not only learn about visual language, you are

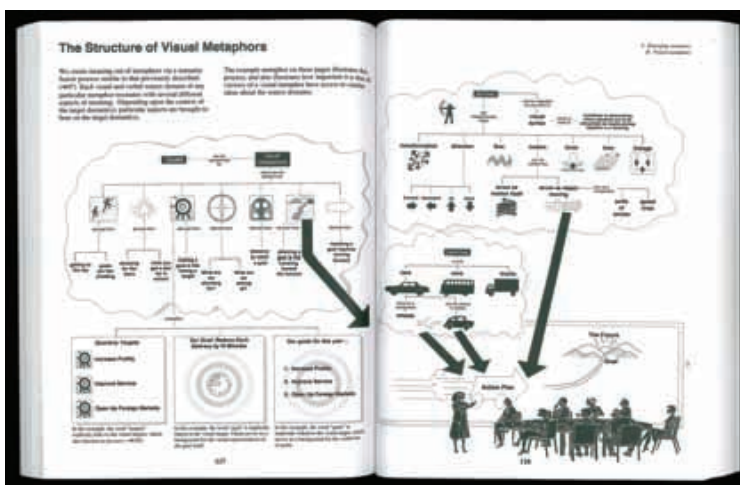
immersed in it. This immersion requires some getting used to, and to assist readers, Horn provides a guide, an iconographic Bob Horn, who exemplifies visual language while explaining it. On the first page, “Icon Bob,” as I’ll call him, is standing at the lower left, speaking to us intimately, defining visual language; on the last page, he has moved to the right of the page, standing behind a podium as part of an infomural (one of the “communication units” of visual language), lecturing to a large audience (of which we’re now clearly members) about visual language’s future. Thus, we get more than just a first-person pronoun author; we get a fully formed clip-art version of the author “speaking to us,” using speech bubbles much as comic strip characters do, throughout the book.

Providing us with “Icon Bob” is not simply a way for Horn to play, although I do think there is an element of play in the book. Rather, by talking to us directly and relying solely on images that are readily available (clip-art),

Horn makes two important points. Recognizing that the rapid progress of communication and computer technologies is making designers out of all of us, whether we like it or not and whether we’re trained or not, he explains that we do not have to be skilled artists to use visual language. We can rely on many of the technologies (such as easy-to-use paint and draw programs and libraries of clip-art) to create visual language. In addition, and perhaps more important from a pedagogical standpoint, he argues that even though we may readily understand this new language and be able to use it quite naturally and due to the available technologies, using it effectively may not be natural and may require instruction. One of Horn’s main points, and why he spends so much time describing the language, is that you must work to get the “right graphics and the right words together in an integrated set of communication units”. You can’t simply paste a graphic next to a word and call it “visual language.”

For Horn, the future is now. He explains that “the first visual generation has already arrived in our colleges and universities.” He believes that these students rely upon visual thinking as a “normal part of communication” and that “visual communication is the only way we can handle the complexity of modern business communication”; it is becoming an international auxiliary language (IAL).

Because the future is now, Horn sees teachers’ roles as essential ones. He believes our students



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“His book confronts three big lies about graphics: 1) That pictures are just decoration. 2) That only artists can create effective graphics. 3) That words and pictures are enemies. And his book walks the talk! It integrates visual elements and text; it uses simple clip art; and shows-while-it-tells, and tells-while-it-shows.”

—William Horton, Author, *Illustrating Computer Documentation*, *The Icon Book*, *Designing and Writing Online Documentation*; and *The Web Page Design Cookbook*

need to know how to use visual language to meet the challenges of the next decade. In his book, he asks and answers a series of questions that we, as technical communicators and educators, need to understand if we want to help our students meet those challenges, questions such as “What is driving the emergence of visual language?” and “Why is the graphic computer so important?” His answers are not conclusive, but they are provocative, and they lead him to explain that if he “is right, then we need to learn the vocabulary, grammar, and semantics of this new language”.

Whether you think Horn is “right” or not, his detailed discussion of this new language makes this book worth reading. He synthesizes material from information design and the history and practice of visual languages (such as quantitative charting and cartooning), and demonstrates an understanding of research into the emerging syntax and semantics of visual language. His book is a rich source of information and ideas. Chapter 2, “A Brief History of Innovations,” for instance, is worth the price of the book alone. Visual information provides the records of human history. This chapter, itself an extended timeline, opens with a picture of the earliest data recording (38,000 B.C.E). Proceeding through pictographs, the first graphs, movable type, the first bar chart, and ending with the World Wide Web, Horn demonstrates his claim that “the challenges of coping with complex data and information have been among the most

important drivers of the development of visual language”. Readers unfamiliar with key figures such as William Playfair, the English political economist credited with “developing or improving many of the major numerical charts”, or Florence Nightingale (yes, that one), a “pioneer in social statistics and inventor of the polar area diagram”, will enjoy the tightly integrated and concise presentation here.

Visual Language isn’t a particularly long book, but because Horn writes it using a new “language,” it does require a different kind of attention. You have to evolve into what Horn calls “multi-modal” reading due to the fact that “multi-modal” reading due to the fact that there are no extended passages of prose. Although I found the chapters quite slow “reading,” I was never bored. On each page, I found myself encountering discussions of features of a language I had seen but not understood clearly before. My “Ah-hahs!” were accompanied with “uh-huhs,” as I nodded my

head in agreement and admiration.

I recommend Horn’s book for every technical communicator. If you take the time to journey through time and space with “Icon Bob,” you’ll have few doubts, particularly if you have ever taken a detailed course in grammar and studied syntax and semantics, that visual language is indeed a language with distinctive elements and communication units that we can use to encourage problem-solving, express meaning more fully, and increase our speed of understanding. I have the urge to say that Horn goes where no one has gone before, but I won’t. Instead, I’ll say without hesitation that he takes us further and into different spaces than those who have come before, even Edward Tufte, who opened my eyes to many concepts pertaining to visual information with his trilogy of books.

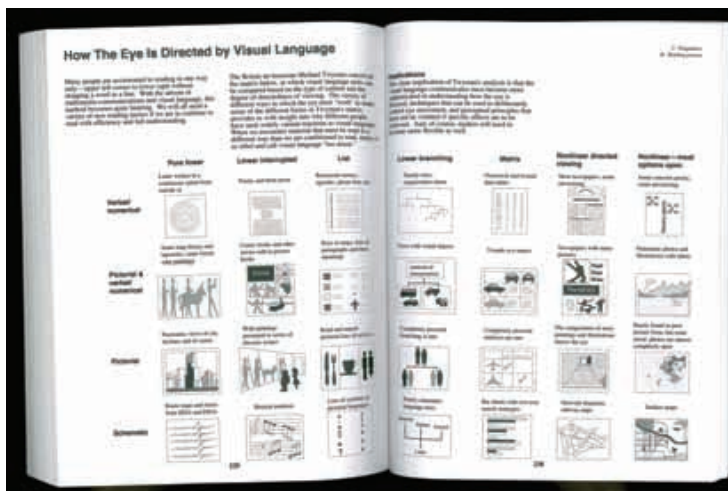
After reading Horn’s book and coming of age as a technical communicator / educator in the decade of the 1990’s, I have no

doubts that we must teach students how to use this second language effectively in order to prepare them to function in the increasingly global society. Schriver was quite prophetic a decade ago when she explained that technical communicators needed to recognize both the increase in reliance on multimedia and the international nature of commerce in order “meet the readers’ various and frequently changing needs.” She understood the need to integrate the verbal and visual. In the last decade, others have caught on. For evidence, one need only look at the chapters in document design that are becoming standard in composition handbooks. Whether we like it or not, as Donis Dondis (another seer) said, “The visual dominates; the verbal augments. Print is not dead yet, nor will it ever be, but nevertheless, our language-driven culture has moved perceptibly toward the iconic”. Horn’s book lays the foundation for how we, as communicators and educators, can orient our students and ourselves to the iconic. As he says, learning to use visual language creates “new possibilities for human creativity and communication”.

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“Robert Horn is the Samuel Johnson and the William Shakespeare of visual literacy... [The book is] playful & scholarly, innovative & practical, insightful & comprehensive, informative & provocative, historical & forward-looking...”

—Ben Shneiderman, Professor, University of Maryland, author of *Designing the User Interface*

“...a publication readers are likely to keep retrieving from the bookshelf.”

—Prof. J.R. Hartley, Computer Based Learning Unit, University of Leeds. From a review in the *Journal for Computer Assisted Learning*

“...a great source of inspiration... written in the ‘visual language’ it describes, the book reads like a very dense graphic novel—it’s full of ideas for your next design project.”

—Terrie Schweitzer, at *webreview.com*

“...incredibly useful.”

—Beth Conney Lisberg, from a review in *Technical Communication; Journal of the Society for Technical Communication*

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**Robert E. Horn** is a visiting scholar in the Program on People, Computers and Design of the Center for the Study of Language and Information at Stanford University. ([www.stanford.edu/~rhorn](http://www.stanford.edu/~rhorn)) He has taught graduate courses at Harvard and Columbia Universities and at Sheffield University in England. The inventor of Information Mapping®’s method—a powerful, comprehensive technique for analysis and organization of information now taught in 31 countries—Horn is also a pioneer in hypertext, the method of

linking information on the World Wide Web. He is the author of *Mapping Hypertext*, a seminal book which anticipated the intense visual-verbal integration of the Web. He is also the project director for the recently published and highly acclaimed information and argumentation mapping project, *Mapping Great Debates: Can Computers Think?*, a series of maps chronicling the history of the debate on whether computers can or will ever be able to think ([www.macrovu.com](http://www.macrovu.com)).

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