Semiology Of Graphics: Diagrams, Networks, Maps
Synopsis

Originally published in French in 1967, Semiology of Graphics holds a significant place in the theory of information design. Founded on Jacques Bertin’s practical experience as a cartographer, Part One of this work is an unprecedented attempt to synthesize principles of graphic communication with the logic of standard rules applied to writing and topography. Part Two brings Bertin’s theory to life, presenting a close study of graphic techniques including shape, orientation, color, texture, volume, and size in an array of more than 1,000 maps and diagrams.

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Customer Reviews

Text: English, French (translation) --This text refers to an out of print or unavailable edition of this title.

Jacques Bertin is a French cartographer and theorist. In 1954 he founded the Cartographic Laboratory of the École pratique des hautes Études and in 1957 he was named director of education. In 1967, Bertin became a professor at the Sorbonne, and in 1974 he was appointed director of education and director of the Geographical Laboratory of the École des hautes Études en sciences sociales which is part of the École pratique des hautes études. In the late 1970s he became head of research at the Centre national de la recherche scientifique. Bertin is an internationally recognized authority on the analytic study of graphics.
I knew the reputation of this work. It's a very impressive reference source. I've found it to be a necessary volume on my visualizations book shelf. I do wish I could find some companion sources that address the digital formats we live and work with.

In the preface to the 1983 translation of the Semiology I emphasized the book’s importance as a guide to the future, for it seemed clear that we were on the cusp of an explosion in the use of graphical methods for both the exploration and communication of complex data. This prediction came true. In the intervening 27 years a huge amount of work has been accomplished to help us use graphical methods profitably. This work has been in hardware that can produce graphical displays quickly and inexpensively; software that can translate data files into graphical representations with the click of a mouse; and statistical and perceptual research that helps us know how to use these tools well. Let me briefly comment only on the latter two aspects. I choose to refrain from any commentary on hardware because my remarks would almost surely be out of date before they were printed. So first, graphical software: thirty years ago I was enthusiastic and optimistic about the future of graphical use, for, I thought, software will be built that has sensible default options, so that when the software is set on maximal stupidity (ours not its), a reasonable graph would result. The software would force you to wring its metaphorical neck if you wanted to produce some horrible pseudo 3-D multicolored pie chart. Alas, I couldn’t have been more wrong. Instead of making wise, evidence-based, choices, default options seem to have been selected by the same folks who deny the holocaust, global warming and evolution. I could not have imagined back then that the revolution in data gathering, analysis and display that was taking place in the last decades of the 20th century would have resulted in the complexity of the modern world being conveyed in bullet-points augmented by PowerPoint and Excel graphics. The irony of this sorry result is that since the original publication of the Semiology there have been many wonderful books on graphics – each building on the work of Jacques Bertin paired with John Tukey’s practical epistemology. Bill Cleveland’s work uses a combination of statistical savvy and experimental evidence to support and expand upon Bertin’s foundation. Edward Tufte’s brilliant series of books that self-exemplify the advice he gives on how to make evidence beautiful. Leland Wilkinson’s Grammar provides a codification that is invaluable for both how to think about the structure of graphics and how to automate their construction. And my own work, that has mixed together statistics, graphics and history to provide illustrations of what we can accomplish with this marvelous medium. Indeed, the growing popularity and importance of graphics even made it viable for a publisher to reprint William Playfair’s 18th century Atlas, the work that began it all. But despite this
accumulating graphic wisdom, practice continues to lag. I cannot help but believe that had Bertin”s masterwork not fallen out of print some of today”s graphical ignorance would have been ameliorated. This view was surely shared by the publishing arm of L”École Practique des Hautes Études, who republished a 4th edition of the French version in 2005. At about the same time the University of Wisconsin Press was seriously considering the republication of the English translation. Anne McKenna, one of their editors, explained,“”University of Wisconsin Press had been considering bringing Semiology of Graphics back into print several years ago and had begun work to bring that about, checking into renewing rights from the French publisher, looking into arranging for a translation of new material from a newer French edition, getting cost estimates, etc. However, several retirements and staff changes sent the project to the back burner for a while.””This delay was unfortunate because the market for a republication seemed more than ready. A few months ago, on, I noticed that one could get a new copy for $550 and the price for a used one began at $399. These remarkable prices merely reflect supply and demand, for those of us who have our own copies are loath to part with them. Happily ESRI decided to do it. They approached the University of Wisconsin Press, and, as Anne McKenna related,“”As we re-opened the file to get the ball rolling again, we were contacted by ESRI expressing their interest in licensing the book for a new English-language edition. When we realized that ESRI had a strong publishing program in cartography and cartographic design, the UW Press”s director felt that ESRI would be a better home for Bertin”s book, where it would receive much more active promotion. ‘We well know that the Semiology of Graphics is an important book with an eager audience, and it seemed to us that ESRI would do a fine job of bringing the new edition to that audience.’”This publishing generosity is as welcome as it is rare. The reappearance of the Semiology did not come too soon, for our need for improving the quality of displays increases apace with the increase in the number of graphs being produced. I am certain that the quality of displays that are prepared to communicate quantitative phenomena will improve in direct proportion to the extent to which this book is read and internalized by those who generate graphics, and, more importantly, by those who develop the software that are used to produce them. The body of the text in this edition is identical to the previous edition: what is new is the postface, which is an update of work done over the decades since the Semiology was previously published and Bertin gives a chronology explaining what is new. But what is new is beside the point, for the original work was far ahead of its time. I remember many years ago as Bertin, Bill Berg (the principal translator) and I were discussing the translation Berg said, of one of Bertin”s expressions "Ça ne se dit pas, en Anglais" (We don”t say that in English); Bertin replied: “Ne vous inquiï©tez pas: si ÂfÆ’Â Â§a ne se dit pas, ÂfÆ’Â Â§a se dira” (Don”t worry;
if you don’t say it now, eventually you will). Many of us are saying it now, and with the republication of the Semiology, many more soon will be.

References


It’s been 27 years since the first printing of this English translation by Berg and 43 years since the original French edition. Finally, the folks at ESRI Press managed a reprint. I can’t provide better insight than Howard Wainer in his review (he wrote the preface to the original translated edition). This is the book that Tufte cribs off of. This is the definitive volume on information visualization and should be required reading for all cartographers. The book a treasure trove of significant ideas in information design, split into two parts: Semiology of the Graphic Sign-System and Utilization of the Graphic Sign-System. The first part analyzes the properties and rules of the graphic system breaking down the variants and invariants, the plane and the "retinal variables", and combines these and more into rules for construction and legibility. The second part breaks down applications of the graphics as diagrams, networks and maps. The only way the book could be made better would be trough a third section on animation (hinted at in the introduction to the English version). I have not had the change to check out the new printing but will ASAP!

Tufte’s books have captured a lot of Bertin’s message regarding the visual aspect of graphics (which is, in my experience, now all that is meant by "graphics"), and in a more clear, succinct, and possibly even comprehensive manner. However, _Semiology_ is about much more than what can
be seen - it deals extensively with how to get an interesting story from information, which (if I remember correctly) Tufte does not address. I’ve only seen one other author deal with the process of sifting/sorting/refactoring to find interesting correspondences - Charles L. Owen (in Structured Planning, ) - though it is probably covered in many statistics curricula and is necessarily a part of graduate training in most fields, as Bertin predicts in this book’s foreward.I would like to say that Bertin presents this important perspective/process in a compelling graphic way, but in fact the book is as dense and inconsistently structured as any of Tufte’s great counterexamples. The figures are labelled in unpredictable orders on the page, some never mentioned in the text, and because of a mediocre printing job, many exhibit the very errors Bertin seeks to show how to avoid. Worse, these sort of problems are paralleled in the explication (especially with regard to showing a quantity vs. a quantity spread over an area, or Q vs. QS/S in Bertin’s formalism), making it a significant challenge to figure out what is central to the argument and what is in the background.Still, the insight is in there, and the weaknesses are not too great to stop a determined or required reader. The book is full to bursting with myriad practical tips and tricks regarding not just how, when, and why to cram more information onto the page, but also how to decide what information the reader needs. More importantly, it shows how to "discover the groupings contained in the information" (pg 164), that is, to arrive at an understanding of the data without forcing them into a predetermined system*. This is highly significant, and if Bertin was among the first to capture it (even if somewhat obscurely) then this book deserves all of its renown and is sure to grow in importance.* this is a problematic thing to claim, but in this respect it’s my summary which is inaccurate, not Bertin’s concepts.

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