

Envisioning Information. EDWARD R. TUFTE. Cheshire, Connecticut: Graphics Press, 1990. 126 p.

With the advent of interest in non-verbal communication in an increasingly illiterate world, disciplines with names like “semiology” and “visual anthropology” have appeared. They explore and expand, sometimes into incomprehensibility, the bounds of what started, in part and at the practical level, as the study of symbolic communication through language, pictures, and gestures turned to commercial use: advertising, directional road signs, photojournalism. This book re-asserts the roots of sign language in practicality, in the mundane, while taking a quantum leap in its applicability. It intends to show you how to reveal a universe of dense, multivariate, and complex information — that is, an avalanche of data tracked through space, time, and multiple variations — by using visually transparent means. These can be absorbed by viewers who are made friendly to this visual approach by its implied invitation to participate in the fun of easy decipherment.

Does this result only in a “how-to” book for designers of railroad schedules, planetary movements, football plays, and modern dance? Why is it important for archivists to instruct themselves in the arcane underpinnings of statistical coding and hieroglyphic talk? Let’s phrase the question another way: when examining a map, photo, sketch, work of art, chart, graph, plan, schedule, list, invoice, inventory, itinerary, poster, cartoon, or any other product of deliberate design, why do we need to know the rules and devices which govern good visual communication? As archivists, ambitious to make informed decisions on the revelatory value of documents, both for acquisition and description, why do we need to know how effectively the means of communication worked upon the intended audience?

Merely asking the question makes the reply self-evident. The breach or manipulation of these rules of design misleads into obfuscation, or worse, produces documents formulated out of partiality and argument in the guise of objectivity. A classic example (not mentioned by Tufte) might be the IQ test, initially so beloved of educators as an objective standard of intelligence, subsequently revealed as designed, visually and textually, for a systemically discriminatory world.

Although archivists have become adept at winking out the truth behind the words of manuscripts, texts, and publications, they are touchingly trusting in the face of pictures, particularly photographs. Something about the loss of a simple verbal sequential ordering of thought, one sentence after another, leaves them with no bearings in a symbolic world where human ideas are integrated instead on one flat surface with all three dimensions and the passage of time encoded on it, a world where looking at and understanding the picture may require as much time, concentration, and criticism as reading a chapter in a book.

Tufte’s work is a delightful introduction to breaking the code, so that we read not only what pictures and other graphics describe, but also what they claim, espouse, or argue and how truthful or reasonable or effective are their claims. Tufte’s examples of good and bad visual integration of human thought with data in space and time range from colour cartography of the intriguingly clustered birthplaces of Chinese poets over the last 1,260 years to tastelessly suggestive “posterizations” of the drop in diamond prices between 1978 and 1982.

Let us take an example of only one of the underlying design principles he develops in the book for a variety of visual applications. In describing the interaction of microdata (tiny multiples of similar, but slightly variant data) with macrodata (all that detail cumulated into large, coherent structures), Tufte's examples eloquently demonstrate how good design can produce a whole which says more than the sum of the parts, while simultaneously making the whole and its parts more individualized and personal to the viewer. The Vietnam War Memorial in Washington, D.C. is, at the macro level, a huge list of 58,000 dead soldiers' names. However, the design and ordering of those names according to chronology of death results in more than a name and a date: it becomes a description of those specific deaths (placed with their comrades' names, in the context of time and increasing U.S. involvement in the war); in addition, the design requires an involvement at a specific and unique level for each family survivor as each viewer searches the monument for the loved one's name, memorializing the person's individuality in the mass of names. How much less personal and bereft of context or meaning would have been a design which was a simple alphabetical ordering of names, with sixteen James Joneses, and 600 Smiths. Design alone has created the dynamic between the micro and the macro data which, taken together, have revealed something "between the lines" of such significance to this society as to make this monument one of the most visited Washington landmarks.

Sure, you say, that's true for a work of art; it's supposed to move you symbolically. But where is the applicability of micro/macro relationships to archives more generally? After all, archives do not collect Vietnam War Memorials. But there are documents where the crucial information is generated by reading "between the lines" of comparable, but slightly variant, data: long strings of photographic negatives, for example, produced by motor-drive or in sequences of multiples in studios. The standard archival reaction is very frequently to search out the one "important" or "most comprehensive" or "best" image in a string, and discard the rest. This may be a prejudice deriving from Henri Cartier-Bresson's famous "decisive moment"; if a photojournalist as great as he could define his work as a motley of perfectly captured unique moments, why should the rest of us dispute his definition of documentary photography? If a Karsh can produce the iconic portrait of a personality, what need is there for any other portrait (even another by Karsh)? What is discarded when the rest of the "unsuccessful moments" are destroyed? Tufte would say, something crucial: sequence, comparison, context within time, the baseline against which changes, at first tiny, then cumulated to massive variations, may be perceived, and subsequently even re-organized, at the individual and unique level. Is the Santa Claus parade only the final float with the jolly old man on it? Or is it every marching band that prepared for it, every float, and even every child in the audience? Is a person seen only once, at his or her best? Or in the round, suddenly aging in an unflattering light, or newly dressed and dressed again? The micro/macro continuum in design reflects the reality of a world of flux and compromise, while the "frozen moment" is, as Tufte would say, "data-thin," lacking credibility by putting too much control in the hands of an "editor," and becoming both comprehensible and relevant only when compared to other moments. The only truth is in variation from a norm; the only norm a distillation from multiple variants.

In this light, as archivists cannot collect everything, the archival challenge becomes to recognize those cumulations of data which are crucially revelatory for history, and those which are less so. And then to recognize within that, those strings of data which

are comparable variants, eliciting more, through their interaction, than the sum of their parts in information. We have arrived at acquisition strategy, case file selection, and multiple image accumulation. And we have discarded the concept of a unique record, complete in itself, even though some records may be “treasured” and rare in physical form. We have also discarded the concept of visual records as mere illustrations of one thing, one theme, one thought, unrelated to each other or to other records.

Tufte’s book itself is a signal example of the very principles it espouses. From one double-page spread to the next (and no page is planned alone, without reference to its visual pair), it takes its own advice, displaying a constantly varied layout, asserting a stimulating rhythm which yet takes its design cues entirely from the message being communicated. It informs almost without the need to read the text: pages 70 and 71 reproduce a Roy Lichtenstein mural, together with visual “quotations” from twenty-one sources, thus “deconstructing” the work, its origin, intentions, audience, and societal context virtually without a word beyond the captions. From major elements, like the breathtaking illustrations produced to Tufte’s exacting standards by the publishing house he founded, to minor elements, like the bewitchingly easy access to footnotes ranged in columns on the right of each page (why is this not the standard placement for them in all publications?), the book is a technical design *tour de force*. The huge tracts of numbing visual boredom which afflict so many other texts, including those dealing with similar issues of visual communication, find not the tiniest toe-hold here. As a result, the book is read with great speed and pleasure.

The very examples chosen to make design points intrigue the reader due to the messages they carry and hence (sly author!) they encourage careful scrutiny. They reveal things you always wanted to know, like the volume of space debris now orbiting earth (another microdata example) or the deceptive print-out of medical treatments with their associated costs for a patient in an Intensive Care Unit. Apparently so blandly descriptive, the list is actually value-laden, if not guilt-ridden (depending on your viewpoint), showing either heroic efforts to save life, or pathetic, painful, and expensive tactics applied to delay the inevitable death, or worse, to reverse side-effects generated by previous treatment. Knowledge of “diplomats” and “visual design” can combine here to probe not the event, but the society which chose this method of communication in documenting the event.

Although one does not want to tarnish the shining excellence and clarity of the text, sprinkled with its incisive aphorisms, nevertheless, Tufte does allow himself the odd quirk of phrasing: why “2-space” and “3-space” rather than “two-dimensional” and “three-dimensional”? Surely it is not a fear of excessive syllabification, not from the author of “boustrophedonically” (p. 106) — a word describing the reading of lines alternately left-to-right and right-to-left, which I expect never to see so casually dropped into any other text I shall ever read again.

In his introduction, Tufte acknowledges comments on the book by Rudolf Arnheim, a founding father of critical analysis in the visual communication maelstrom; Arnheim must have been proud of his acolyte. Tufte has grafted together his expertise in statistics, graphic design, political economy, publication and education to create a brilliant didactic treatise that is a joy to hold and a goad to rumination.

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