

Mapping + Change: The Awkwardness of Urban Evolution

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ON CHANGE

As readily evidenced, contemporary communities are evolving at an unprecedented rate. Demographics, economies, cities and cultures are mutating worldwide. During this time of activity, one will do well to remember that evolution is an essential component of society but not necessarily an easy one. Change can be uncomfortable. The uncertainty of newness, although exciting, can be disorienting, disconcerting and even awkward. Many times evolutionary methods leave one guessing and searching for some sense of familiarity. However, one must be careful that the search for familiarity does not drive one to the perceptive dilution of the possible efficacy of a specific change. Equally problematic is the blind acceptance of change without understanding or critical analysis. Either pole (blind acceptance or unequivocal discrediting of things new) can prove problematic, especially at larger social scales.

Instead, it is wise to first evaluate the trends, forces and consequences of changes on populations before adherence or abhorrence. As designers, our roles are not to thwart nor accelerate cultural and societal change. In stead, we must learn to operate within the burgeoning systems we now find ourselves. If we first understand what change is taking place then we can determine how to best operate within said change. Once we gain this orientation within the developing scheme we can best understand how to impact society in incremental, attainable and contextually pertinent ways. Methods of analytical drawing can help us to define, examine and apply the traits of change into our methods of working and living. Mapping can prove

to be a powerful analytical tool, beneficial to the process of evaluating and responding to transformation. However, we first must understand how to properly apply mapping.

ON THE PURPOSE OF MAPPING

For the purposes of this paper, we will focus on maps that are projective in nature, those that lead to the discovering of new systems. Concurrently, we will ignore maps that do nothing more than reproduce a small, closed-system par value. In accordance with claims made by the likes of Gilles Deleuze, Felix Guattari and James Corner, it is accepted here that such illustrations are more akin to 'tracings' than viable maps. Deleuze and Guattari explain:

"What distinguishes the map from the tracing is that it is entirely oriented toward an experimentation in contact with the real. The map does not reproduce an unconscious closed in upon itself; it constructs the unconscious ... The map has to do with performance, whereas the tracing always involves an 'alleged competence'."¹

Corner describes the ability of the map to construct its agency to unfold. He writes that since maps are both analogs to physical places, and simultaneously, abstractions of information related to those places they generate an ability to reveal (or "unfold") new information. He argues that:

"The analogous-abstract character of the map surface means that it is doubly projective: it both captures the projected elements off the ground and projects back a variety of effects through use. The strategic use of this double function has, of course, a long alliance with the history of mapping."²

ON DEFINING AND APPLYING MAPPING

Although innumerable definitions of mapping vary greatly depending on what is being mapped and the specific execution of the map, most concur in explaining maps as a type of simplified diagrams of complex systems. These flattened illustrations are vital due to their ability to assist one in gaining an understanding of and orientation within the more complex system which is being conveyed. This orientation, although usually geographic in nature, need not be limited to helping a person get from one physical place to another. Maps can be orienting on many fronts: ideological, social, economic, political - the list does not end. Threaded through this expansive list is the common need for being found or identified. This need, rooted in the desire for some semblance of orientation, can be that which compels one to refer to such figures in the first place. Therefore the purpose of a map is to clearly and succinctly communicate whatever information is necessary to facilitate the orienting of the individual within that system, whether it is a building, a city, a landscape, a concept or a social or cultural context. However, such a definition of mapping ostensibly makes some assumptions.

An orientation-based definition of mapping assumes that the system is presently understood by the cartographer and therefore navigable by others via graphic direction. This is not always the case. In fact, it is, at times, impossible to completely understand the system which is being mapped. Such an assumption leaves us with a cursory scan of placement rather than a figurative exploration into place. Places are complex, intricate systems that require volumes to be adequately communicated. No cartographer can understand all of these complexities, much less convey them in a single map. Further, not all systems are inherently understandable or communicable, complicating the cartographer's task. These issues are only compounded when considering the inherent evolutionary tendencies of complex systems such as cities or cultures. Such change can be difficult to experience and understand, making it equally difficult to draw. This renders normative mapping ill-equipped to navigate experiential systems or communicate spatial complexities not easily compressible into two-dimensional graphics. This difficulty is only heightened in instances where already complex systems are undergoing significant and unpre-

cedented metamorphoses. In such cases traditional maps do little more than identify the existence of change. Such events must be mapped through alternative, inventive means that do not intend to explain understood systems, but communicate potentiality for something inexplicable.

Maps can be more successful at addressing such instances when they employ a few specific traits not common in normative mapping. In order to better address and explain aspects of change through mapmaking, we must consider three characteristics not usually associated with maps: identity, complexity and adaptability.

ON IDENTITY

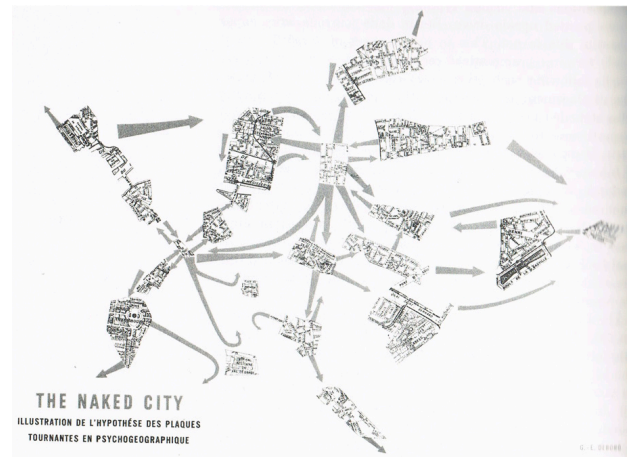


Figure 1. Guy-Ernest Debord, "The Naked City," 1957

Guy Debord and the Situationist International give examples of cartographic identification in their series of psycho-geographic maps of Paris. In maps such as *The Naked City*, it is clear that parts of the city are removed from their context in order to place emphasis on the pieces translated to the page. These maps were linked to wanderings (*derives*) not necessarily focused on the internationally popular neighborhoods (*arrondissements*); nor did they locate the famous Parisian monuments. Instead, they explored paths and parcels within the city that had caught the attention of the explorers as they wandered. Such a recording of the city expresses an intention to show identity within and identification with that particular city. As Debord and the other members of SI, such as Asger Jorn, wandered, they would document their *derive* and then translate it into the later compiled



Figure 2. Giambattista Nolli, 'Nolli' Map, 1748

psycho-geographic maps. Parts of the city deemed inconsequential to the specific derive were removed and replaced by arrows to signify the direction of travel from one identifiable area to another. At times the pieces of the city were left in their original locational proximity to the other remaining sections (cartographic culling) and at other times they were moved or displaced (decontextualized). Either way, through individualization, these maps are able to focus on what is deemed most important to the individual cartographer, rather than represent the usually suspected elements of the city. This individualization can express the identity of the city with its current inhabitants. Such maps do not placate the unfamiliar masses with normative basic information of little efficacy or immediate consequence. In fact, they show the city as it is presently understood and engaged by its users, reflecting change within the city as well as changes within its citizens.^{3,4,5}

ON COMPLEXITY

Principles of reduction and editing are key characteristics to heighten clarity in mapping. This simple, yet crucial process includes three of the four key

characteristics of map making: identification, selection, and omission (codification is the fourth). Obviously, no map can communicate all things about a place. Such a map would be impossible. However, many map makers erroneously choose to site their work on the other end of the spectrum, in the land of sparse information and diluted efficacy.

It is readily accepted that maps must be simplified and free from extemporaneity. True, a cartographer must identify the specific purpose of a given map and learn to get everything else out of the way. However, the assumption that only one thing can be learned per map is erroneous and preventive. Maps can and should be complex, yet remain specific and intense. As the map maker identifies, selects and omits that which is unnecessary, they must not lose focus on the true task at hand: the conveyance of otherwise hard to understand information in relation to a larger, organizational system or structure.

In *Collage City*, Colin Rowe and Fred Koetter purport that a city's inherent complexities lend themselves to the juxtaposition of differing urban elements rather than a singular utopian view of homogeneity.



Figure 3. David Grahame Shane, "Field Analysis of Central London," 1971

They go as far as claiming that those who can deftly do many different things well (foxes) are better equipped as architects than are those who specialize (hedgehogs). It is this proposal of a complexity-embracing urban sensibility that helped Collage City garner its critical import. As dated and debated as is their 30-plus year-old urban argument, its importance to the field of architecture cannot be denied. However, it is not this argument that is of focus here. Rather, it is the maps used to support such claims. Lading the pages of the text are images of collage and bricolage, architecture and art, all in support of their seeming cry for ideological inclusion. Also on these pages are maps paying obvious homage to the works of Leonardo Bufalini and Giovanni Batista Nolli and the great influence of the figure-ground. Mingled with the maps of Le Corbusier and others

are those of students, including a "field analysis of Central London" by David Grahame Shane, who has since published several pieces, one of which was a book in 2005 entitled *Recombinant Urbanism* which recapitulates some of the ideological vestiges of Collage City in a contemporary, layered context of enveloping urban complexities. Shane's map in collage city appears to derive its codification from a mixture of Nolli's sensibility and collaged pieces of the paintings of Piet Mondrian. Through the use and combination of such elements as well as the omission of some of the existing urban context the map effectively embraces specific complexities of London in a compelling, communicative manner.

In chemistry, valence refers to the number of potential bonds formed by an atom of an element. Single bond elements (univalent), such as chlorine, do not possess as much potential for valency as more bondable elements, such as xenon which has a valence of eight (multivalent). Increased valency can come with more instability (not in all cases), but does come with more bonding potential. As complex systems, cities are most certainly multivalent, especially in cultural terms. As amply noted the role of maps in most cases is to reduce the amount of information to the essential and for just cause; confusing maps may include much, but communicate little. However, this is no excuse for replicating traces that convey no new knowledge. As systems described by maps get more complex or more personally experiential, they tend to require multiple layers of information to properly communicate their purpose. This mutivalency, as with chemistry, can cause moments of uncertainty and even informational instability that requires a more in-depth reading of the map to truly understand its message. It is through the bonding of multiple

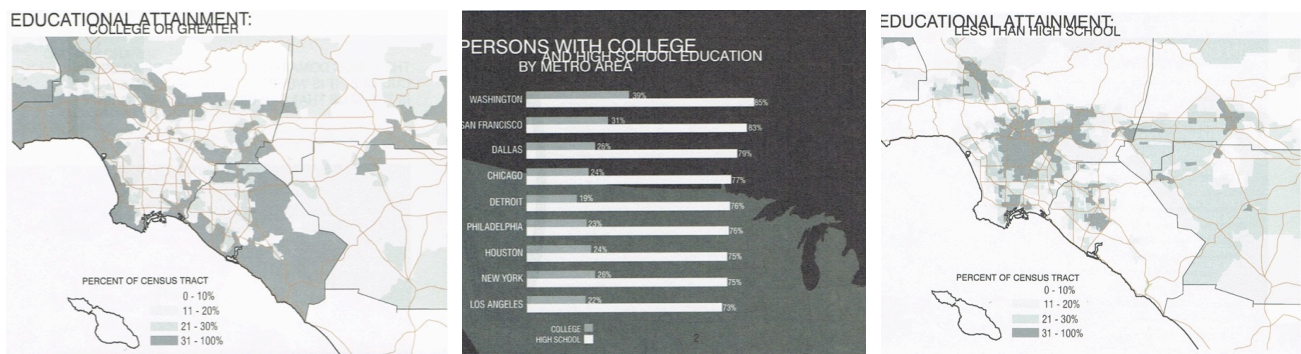


Figure 4. Martin Summers, "Univercity" Educational Maps, 2002

interrelated layers of information that these maps gain their vitality.

L.A. Now, a book series of student work coordinated by Thom Mayne, conveys a tremendous amount of data particular to Los Angeles. These volumes are full of maps that are at first glance intimidating, yet they are thorough, inclusive and invaluable when understood. Layers of social, agricultural,

infrastructural, political, economic, geographic, urban and architectural data are all stratified in the attempt to communicate projective ideas for the city, its built works and its inhabitants. Lesser maps would shy away from such cartographic multivalence, but they would in kind shy away from the communication necessary to inform Angeleans about the future of their city.^{9,10}

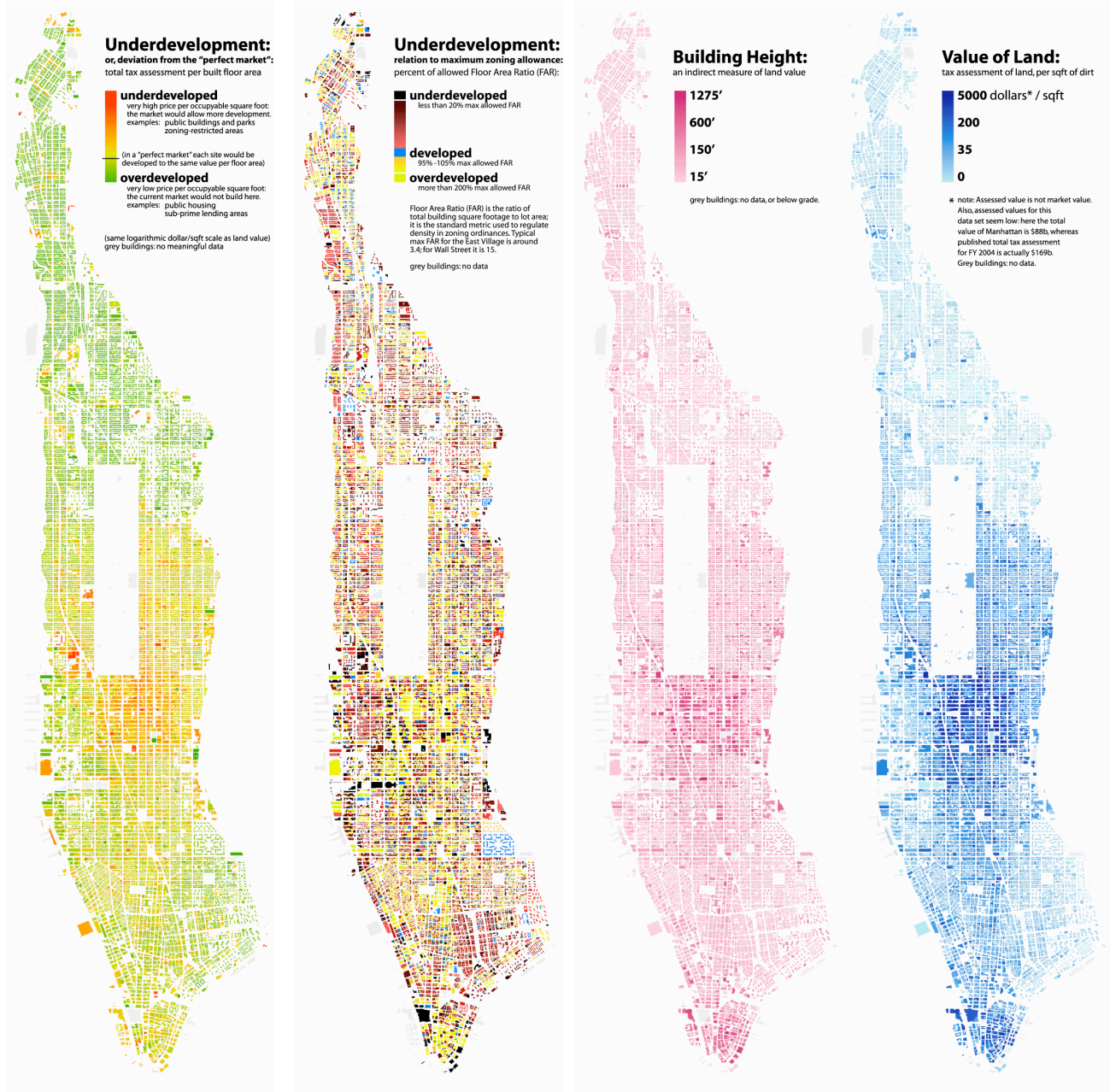


Figure 5. Bill Rankin, New York Maps, 2006

ON ADAPTABILITY

At www.radicalcartography.net Bill Rankin develops, gathers and exhibits maps of similar complexity. Not all of Rankin's maps are complex. Some are whimsical, some are pointed, simple and focused, and others are extremely multivalent. However beneficial each of these maps are in their own right, it is the purpose of this paper to focus on those that communicate, through adaptability, the complexities of change and identity. In Mr. Rankin's many evocative sets of maps regarding New York City, he explores issues of population, economy, density, height, crime, race, education, culture, size and paths among many other things. The benefit of exhibiting these maps online is their capability to embody an editable layering of such information. Here, digital technology provides the viewer with an ability to filter and moderate the information shown. This adapting can be executed in a focused attempt to better understand changes within a singular characteristic or to more inclusively layer, compile, compare or composite a multitude of characteristics in order to visually understand potential amalgamative urban influences. This allows for a balance of understandability and complexity to be individualized for specific situations. Although such an editable interface does allow for the possibility of a focused, univalent map, the very potential for a variable multitude of compiling layers gives this

exhibition its verve. The ability to alter seemingly dissimilar information, in a comparative manner, initiates potential for discovery.¹¹

Edward Tufte, through his numerous publications such as *The Visual Display of Quantitative Information*, gives countless examples of many ways to visualize complex sets and systems of information. Although, in their printed format, these publications do not offer the editable layers available on web-based, interactive maps they do express graphic adaptability through other means. More explicitly, the sheer impressive variety of examples within these books gives graphic communicators, such as map makers, endless creative possibilities when deciding how to best organize and express the information within their creative purview. It must be understood that tactical variability in methods, tools, capabilities and sensitivities enables savvy cartographers to adapt their craft specifically to the needs of their audience and the demands of the information being transmitted.^{12,13}

IN CONCLUSION

In an ever globalizing, and rapidly digitizing world, change is inevitable. Intelligent, precisely crafted and applicable maps will augment understanding and intensify the communication of the effects of community growth and adaptation. Through this

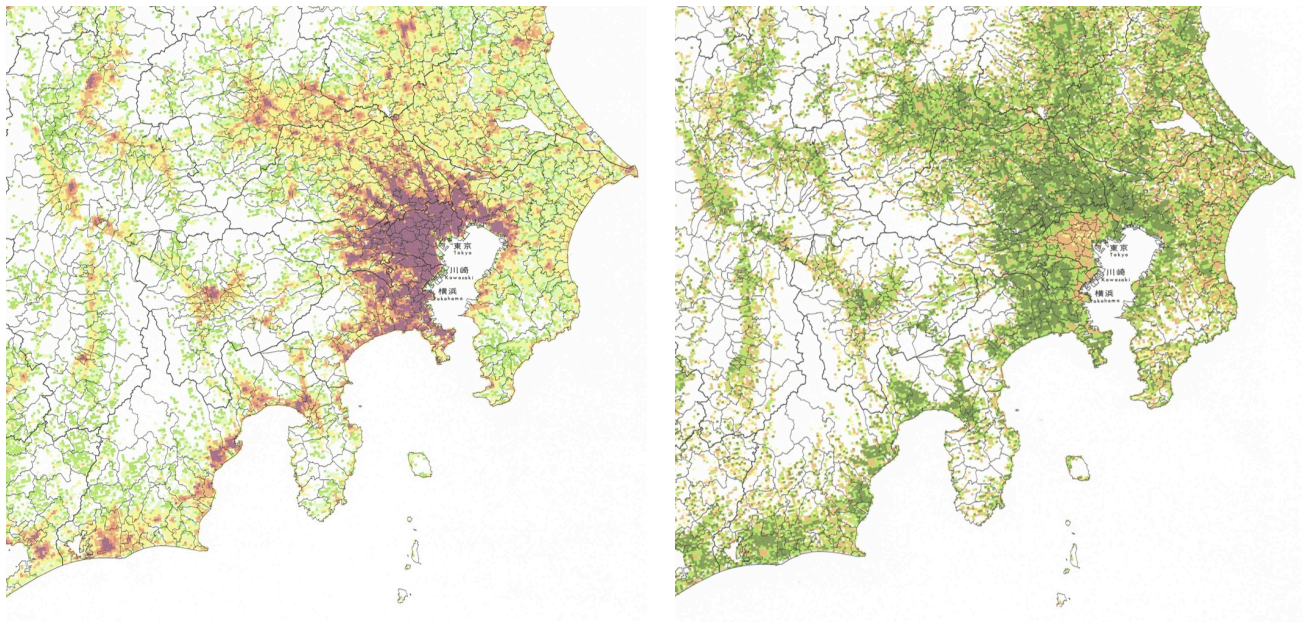


Figure 6. Tokyo Statistics Bureau, *Statistical Maps on Grid Square Basis*, 1985

garnered sapience we will be able to recognize, embrace and wield our talents in the cultivation and implementation of cultural shifts in positive, projective ways. If we can create and analyze such evolutionary maps with identity, complexity and adaptability we can better apply these skills and characteristics within our communities. Through this, we not only orient individuals within their contexts but inform them how to affect that context, empowering them with tools to employ change as a progressive force.

FIGURES

Figure 01: Guy-Ernest Debord, "The Naked City," 1957. Image scanned from *Lipstick Traces: A Secret History of the Twentieth Century* by Greil Marcus, Harvard University Press, Cambridge, 1989. page 392.

Figure 02: Giambattista Nolli, 'Nolli' Map, 1748. Image retrieved from: <http://jamarchitecten.nl/document/nolli-map/>

Figure 03: David Grahame Shane, "Field Analysis of Central London," 1971. Image scanned from *Collage City* by Colin Rowe and Fred Koetter, The MIT Press, Cambridge, 1978. page 114.

Figure 04: Martin Summers, "Univercity" Educational Maps, 2002. Image scanned from *L.A. Now, Volume Two: Shaping a New Vision for Downtown Los Angeles* edited and compiled by Morphosis, Art Center College of Design, Los Angeles, 2002. page 122.

Figure 05: Bill Rankin, *New York Maps*, 2006. Image retrieved from <http://radicalcartography.net/>

Figure 06: Tokyo Statistics Bureau, "Statistical Maps on Gris Square Basis: The 1980 Population Census Results" 1985. Image scanned from *Envisioning Information* by Edward R. Tufte, Graphics Press, Cheshire Connecticut, 1990. pages 40-41.

ENDNOTES

1 James Corner, "The Agency of Mapping: Speculation, Critique and Invention" in *Mappings*, ed. Denis Cosgrove (London: Reaktion Books, 1999), 214.

2 James Corner, "The Agency of Mapping," 215-217.

3 Greil Marcus, *Lipstick Traces: A Secret History of the Twentieth Century* (Cambridge: Harvard University Press, 1989), 168, 170.

4 Simon Adler, *The Situationist City* (Cambridge: MIT Press, 1999), 12-15, 60-63, 82-88, 183-184.

5 James Corner, "The Agency of Mapping," 231-235.

6 Colin Rowe and Fred Koetter, *Collage City* (Cambridge: MIT Press, 1978), 90-94, 98, 117, 140.

7 Colin Rowe and Fred Koetter, *Collage City*, 114.

8 "Definition of Valence" interpreted from: <http://dictionary.reference.com/browse/valence>.

9 Morphosis (ed.), *L.A. Now, Volume One* edited and compiled by Morphosis, Art Center College of Design, Los Angeles, 2001.

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11 radicalcartography.net

12 Tufte, Edward Rolf, *Envisioning Information* (Cheshire: Graphics Press, 1990).

13 Tufte, Edward Rolf, *The Visual Display of Quantitative Information* (Cheshire: Graphics Press, 1983).