

master thesis by

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RHETORIC IN
GRAPHIC DESIGN

IMPRINT

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“Every manufactured item sends out signals to the mind or emotions. These signals — strong or weak, wanted or unwanted, clear or hidden — create feelings.”

DIETER RAMS

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Preface

Before going to Design School, I graduated in Social Communications with emphasis in Advertising. I learned semiotics, linguistics, philosophy, communication theory in general—all of them with an approach connected to advertising and marketing. It was normal for me to see communication as a way to persuade, to convince. It felt natural.

Arriving in Design School, coming from advertising, I felt as if I was the “girl who sells margarine”. The impression I had was that designers thought advertising was about lies, manipulation, and deceit; while design was about neutrality, function, pure information. Advertising was the ugly villain, design was the handsome hero.

The years passed, and I learn more and more about this handsome hero, but always with the eyes of those who had seen the villain up close, and had a crush on him. Eventually, my love for both made me realize they are not complete strangers, but, in fact, cousins.

Near the end of my college course, I came across Robin Kinross' text *The Rhetoric of Neutrality* and it made me so glad to read that the distinction between design for information and design for persuasion “cannot be a clear one.” This essay inspired me to read more about the subject and, eventually, inspired this work.

Here's hoping the ugly villain and the handsome hero can keep on learning more and more from each other.

Abstract

Starting with the premise that there is no pure information in human communication and, therefore, **no neutrality** in graphic design, this work explores the possibilities of visual rhetoric in this field. The emphasis is placed on some areas, such as news and information design, where the presence of rhetoric is less clear than in areas such as advertising and poster design. Layouts are used to demonstrate how design decisions can influence the transmission of messages. The aim of this work is to point out to graphic designers the importance of including the shaping of meaning in their creative process, and to provide initial tools for it.

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INTRODUCTION

(...) informative *assertios* are interlarded with rhetoric to a greater or lesser degree. If they were not, communication would die of sheer inanition. “Pure” information exists for the designer only in arid abstraction. As soon as he begins to give it concrete shape, the process of rhetorical infiltration begins. It would seem that many designers—blinded by their effort to impart objective information (whatever that may mean)—simply will not face this fact.¹

GUI BONSIEPE

“(...) the designer, instead of simply making an object or thing, is actually creating a persuasive argument that comes to life whenever a user considers or uses a product as a means to some end.”²

RICHARD BUCHANAN

DESIGN & THE DESIGNER

—*a few definitions and some questions*

The *Thames & Hudson Dictionary of Graphic Design and Designers* defines *graphic design* as a “generic term for the activity of combining typography, illustration, photography and printing for purposes of persuasion, information or instruction.”

Graphic designers translate concepts and ideas into a visual representation, by organizing and connecting elements into a structure. This arrangement of elements is done with an intended effect in mind, a goal. Since the communication between designers and viewers have defined purposes, *design is essentially rhetorical*. This intentional and deliberate production of meaning is the rhetorical function of graphic design.

But what is the role of the graphic designer in this communication scheme? The content is produced by someone else and it is received by the viewers. The graphic design creation process includes the selection and arrangement of signs in a way which will produce meaning and optimize the communication. The graphic designer stands, then, as a **mediator** — someone who acts as a “translator”, an “organizer”, of content. Abraham Moles refers to the role of the graphic designer as a *sign engineer* who “designates the symbolic aspects of the environment to prepare us for real actions.”³

It is the responsibility of the ‘transformer’ to understand the data, to get all necessary information from the expert, to decide what is worth transmitting to the public, how to make it understandable, how to link it with general knowledge or with information already given in other charts. In this sense, the transformer is the trustee of the public.⁴

MARIE NEURATH

Since this *mediation* affects the perception of the message, how do the designer’s personal attitudes, values or design philosophy affect the world we live in? And, since there is an influence from the designer’s values, what to do when there is a conflict with the values of the client/publisher/author?

“Graphic design has no ideology of its own, but it has results. It acts as a social amplifier of the messages, attempting to tell well what someone has to say”⁵

ABRAHAM MOLES

¹ (Bonsiepe 1966). p.170

² (Buchanan 1989). p. 96

³ (Moles 1989). p. 120

⁴ (Jansen 1996). p.150

⁵ (Moles 1989). p. 122

To design is to select. By drawing attention to one element, the designer is depreciating another element. In that sense, when a communicator chooses what to include in a layout, he is also choosing what to omit. To place emphasis is to determine what viewers will look at first; is to determine what is more important.

“One of the most significant design principles is to omit the unimportant in order to emphasize the important.”¹

DIETER RAMS

THESIS HYPOTHESIS

The main hypothesis of this work is that nothing is neutral in graphic design and every decision designers take during the process of creation influences the perception and reaction to the content. Even when a piece looks neutral, there is the intention of looking neutral behind it. Some intention will always come across to the viewer. If graphic designers do not take intentions into consideration during their creative process, they don't have the necessary control over it.

RELEVANCE

Designers must be aware that there are always intentions behind the construction of meaning and understand the importance of including rhetorical decisions in their design process.

AIM

The goal of this work is to present more questions than answers. Instead of setting rules for the design process, its aim is to provoke reflection about the topic.

OUTCOME

The result of this study is a book including theoretical formulations and layouts which demonstrate these declarations.

RHETORIC

—*The ends justify the means*

“For rhetoric, language is never simply a form of expression: it is a functional tool that is manipulated to achieve desired ends. A common prejudice and misunderstanding associates rhetoric with the bombastic and hollow, with fraud and seduction, with deceit and sheer ornamentation. The long history of this art, in contrast to popular assumptions, tells us that rhetoric has been concerned with imagination, with form-giving, and with the appropriate use of language to facilitate human affairs.”²

HANNO EHSES, ELLEN LUPTON

Since its birth, rhetoric lacks a clear definition. The interpretation of rhetoric changes from time to time, from situation to situation. Mostly connected to *persuasion*, rhetoric can be defined as guidelines to construct appropriate messages. It can be also be seen as a mean to provide the audience with the reasons for adopting a new attitude or taking a new course of action.

Persuasion is sometimes seen as a dirty world, connected to deceit, brainwashing, and fraud. But persuasion is not necessarily a dishonest tool, but rather an acceptable form of reasoning. Since communication aspires to achieve certain goals, to generate certain responses, it uses rhetoric. The choices graphic designers make while designing a piece—compositions, typefaces, images, styles, and so on—affect the way viewers understand it and are, therefore, rhetorical choices.

In that sense, every way of human communication is somehow filled with rhetoric. According to Kenneth Burke, all language is a species of action by which we seek to move the world and move in the world, all language is rhetorical. Since graphic design is a type of communication, it is also safe to state that **all graphic products have a rhetorical function**, since it aims to change people's behaviour in some way. What would be the meaning of a graphic piece that has no effect on anyone? Is it even possible?

¹ (Rams 1989). p. III

² (Ehses and Lupton 1988). p. 3

HISTORY

—milestones

The study of rhetoric in the Western World began in ancient Greece, with the Sophists (500 BC). With the birth of the Greek democracy, there is no central power anymore and, in order to come to decisions, people need to discuss matters. It becomes essential, then, to convince others of one's arguments. The Sophists were groups who travelled around Greece, teaching in public places in order to attract students and offer them an education. In time, they focused more on eloquent speech and rhetoric, claiming that there is no objective truth and that every argument can be disproved with a counter-argument. This brought them up against 'modern' thinkers such as Plato (ca. 427 BC–347 BC), who portrayed them as greedy instructors who used rhetorical cleverness and ambiguities of language in order to deceive and to gain power.

Plato's student Aristotle (384BC–322 BC) also denounced the fallacies (misconceptions resulting from incorrect reasoning in argumentation) of the sophists in his work *Sophistici Elenchi*. Later, he focused on rhetoric as a science in his work *The Art of Rhetoric*, where he defined types of rhetorical steps: *logos*, *ethos* and *pathos*. *Logos* focus on the message; it is the use of reasoning to construct an argument. *Ethos* focus on the speaker; using the character and credibility of the orator. *Pathos* appeals to the emotions of the listener. The Romans were also interested in rhetoric: Cicero (106-43 BC) wrote pieces such as *De Inventione e De Oratore*; and Quintilian (35-100 AD), *Institutio oratoria*.

During the middle ages, the Christian Church used rhetoric as an instrument of propaganda, spreading its faith. St. Augustine of Hippo (354-430), a rhetorician by profession, wrote *De Doctrina Christiana*, where he defends the use of rhetoric by Christian teachers: "Now, the art of rhetoric being available for the enforcing either of truth or falsehood, who will dare to say that truth in the person of its defenders, is to take its stand unarmed against falsehood?"¹

"Alice was beginning to get very tired of sitting by her sister on the bank, and of having nothing to do: once or twice she had peeped into the book her sister was reading, but it had no pictures or conversations in it, 'and what is the use of a book,' thought Alice '**without pictures or conversation?**'"

From Lewis Carroll's *Alice's Adventures in Wonderland & Through the Looking-Glass*. London: CRW Publishing, 2004. p. 11.

VISUAL RHETORIC

—an image is worth a thousand words

We see pages before we read them, so the reader's first glance influences the processing of information as a whole. The arrangement of elements on the surface, the contrast or harmony among them, the general tone of the piece—all of those create an image that is perceived holistically and that predisposes the viewer to respond in one way or another to the message.

Written clues can also create a tone for the content, of course, but visual clues do it faster and more effectively. It is not by saying "I am trustworthy" that someone is seen as trustworthy, but *behaving* as a trustworthy person. The same goes for anything: one is seen as dynamic, amusing, traditional, or professional, by behaving dynamically, amusingly, traditionally or professionally. With that in mind, publications cannot simply state they are something, but rather *look like* that something. Through graphic design, a message can be seen as credible, interesting, modern, and so on. That is, graphic design can set the *tone* of the content, give it a *character*.

¹ <http://www9.georgetown.edu/faculty/jod/augustine/ddc4.html>

Dada

The Dada movement, with its contempt for tradition, arranged image and words, mixing letterforms, ornaments and ready-images in order to shock. The use of new techniques—such as photomontage—and the bold use of collage formed a visual style that was set out to make fun of established values.

The use of new techniques was a rhetorical device to emphasize and celebrate mechanization. Instead of the traditional hand-drawn images, the Dadaists used photography. The typography escaped from the strict vertical-horizontal arrangement imposed by the rectangular units of the printing press by using angles and diagonals.



**BULLETIN
DADA**

SALON DES INDEPENDANTS
GRAND PALAIS DES CHAMPS ELYSEES
(Musée d'Art)

Mouvement DADA

FRANCIS PICABIA

N° 6

Prix: 2 francs

écrire à tristan tzara 32, Avenue Charles Floquet Paris (VII^e)

PROGRAMME de la M A T I N E E D U

Mouvement Dada le 5 février 1920

Paul Dermée

Paul Eluard

Louis Aragon

Tristan Tzara

Toutes les femmes sont décolorées

les hommes portent cet honneur boutonnier

Francis Picabia le festin

Manifeste la par 4 personnes et un journaliste



Excursions & Visites DADA

DADA

1^{ère} VISITE:
Eglise Saint Julian le Pauvre

LA PROPRETE EST LE LUXE
DU PLACIDE

SOYEZ SAIN

JEUDI 18 AVRIL A 5 h
RENDEZ-VOUS DANS LE JARDIN DE L'EGLISE
SAINT JULIEN LE PAUVRE

10 francs

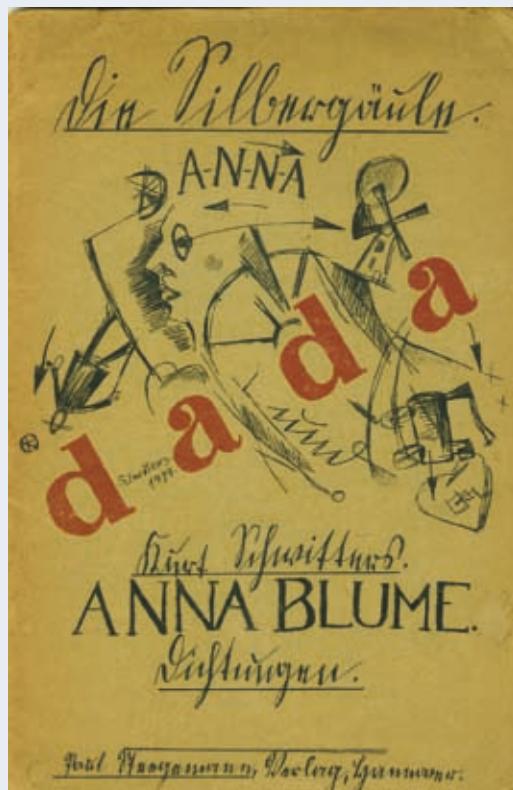
EN HAUT LE HAUT ■ EN BAS LE BAS

Sous la conduite de Gabriele Buffet, Louis Aragon, Aar, André Breton, Paul Eluard, Th. Faurel, J. Huisman, Georges Picabia, Francis Picabia, Georges Ribemont-Dessaignes, Jacques Ruyat, Philippe Souza, Tristan Tzara.

MERCIS POUR LE PUBLI

ORDINAIRE DES JEUNES VOLONTAIRES

PARIS



The tone of a graphical piece is like the *voice* of a person. When words are spoken, their meaning is affected by how they are spoken, so the same word can indicate different things depending on the voice. A whisper, a scream, an authoritative or friendly voice — there are numerous possibilities to express the same content with different meanings through intonation. When printed, the words lose this voice and, therefore, possibilities of inflection. The “voice” of printed text is graphic design.

While some visual effects—such as photographs—are obvious, others—such as the choice of typefaces—can be subtle and likely to be unnoticed by the viewer. Latent visual rhetoric is not seen as rhetoric, so it influences the viewer while flying under the radar. Documents such as manuals, sales letters and research reports have typical visual elements which are repeated in every edition, giving them a character of consistency and reliability. In magazine articles, heads and subheads communicate the structure of the content and guide the viewer through it. Content pages in books call attention to themes and structures and their order.

It is essential to notice that the visual cues do not merely reflect the hierarchy existing in a text: they make a hierarchy, creating the structure through graphic design. Since viewers are used to seeing—and even expect—some of those elements, such as table of contents, headers and sub-headers, they are rarely regarded as concealed instructions of use, but simply as conventions.

Terms & language

Rhetoric—like grammar, syntax, predicate—is a term that refers to verbal language. Graphic design is not a language, since it is based on nonlinear structures and it lacks the defined set of rules that languages have. But design and language have enough similarities to allow the metaphorical exchange of terms. Both language and design are not only systems, but also ways for people to communicate. The structure of design makes it possible for arguments to be constructed, in a way comparable to the way languages work. Other fields, like music and art, also exchange terms with design and language. They all speak of *rhythm* and *harmony*, be there in a song, painting, on a page, or in a discourse.

The act of convincing might present itself as an alternative to the use of physical violence. One can make someone else do something through the use of force, which eliminates the use of rhetoric. If someone doesn't have a choice, then it is meaningless to use arguments. Persuasion implies the freedom to choose.

Furthermore, to develop an argument is only possible in a communication situation, where it is directed to someone. Rhetoric exists only when there is a receiver to the message.

Mass communication, even when targeted to the broadest possible audience, it is directed to an audience, with common characteristics. For instance, when a newspaper is published in 48 western countries, for people of all ages and incomes, it is still directed to a specific audience: *people who are in one of these 48 countries and are able to read this language*. Or a website, available worldwide, which is directed to *people who own a computer and have access to internet*. There is always a common aspect within an audience.

Since communication is always directed at a group, designers should make decisions regarding their layouts based on their evaluation of the potential viewers and the context in which those viewers will be inserted in.

CONTEXT & CONVENTIONS

—Understanding the viewer

One big difference between design and art is that art is self-expression, while design needs to be understood by an audience. The designer needs to understand how the information will be absorbed, what kind of experience it will produce in the viewers and which senses will be involved in the perception and cognition of the message. Therefore, the designer should master not only the codes of communication, but also the context in which this communication will take place and how it relates to the viewer. **To know the context is to know the viewer.**

“Community is constituted as much by the images we see and the visual conventions we share as it is by the words we speak and the discourse conventions we share.”¹

¹ (Fleckenstein, Hum and Calendrillo 2007). p.5

The signs do not have a meaning on their own, but only when backed by a larger system. That is, they must fit in a context where people understand possible meanings of that sign. This context is a kind of *supercode*, which constantly reformulate its repertory of signs relating them to the experience of people, and assigning them a practical meaning. To function as a language that addressees can understand, graphic design should incorporate codes that are shared by the designers who use them and the viewers who interpret it. This collection of associations between signs and meaning are known as **conventions**.

Our experiences shape the way we interpret signs. Based on new experiences, we can refine our interpretations the next time we meet those signs. These repeated events build our expectations when it comes to signs, and, the more the expectations of the audience about form and purpose are met, the clearer the communication is.

When we see a pictogram of a woman on a door, we know it is a female restroom, even if there is nothing written and no picture of an actual toilet seat or a sink. That happens because we learn that *this symbol has this meaning*. All symbols are conventions, because they represent an arbitrary relationship which needs to be learned.

When designers efficiently apply conventions that are incorporated in viewer's minds, it is easier for viewers to understand the structure of a message. For example, websites present a variety of conventions that guide the reader through the content. Elements such as headings, icons, and blocks of color allow us to structure information with minimal cognitive stress. Tables of contents, page numbers and indexes in a book make it easy for the reader to find a specific topic. The header and the footer on a business letter quickly identify its addresser and addressee.

The conventions also offer hints about the rhetorical position of the designer, the tone of the piece, and what the designer considers important. Since conventions feel familiar to the reader, they bring *trust* simply by meeting the reader's expectations. Elements such as watermarks and embossed paper on documents make the reader take them more seriously. The use of large bold typeface of parts of the message and the placement of an image with white space around it are examples of visual conventions that lead to **emphasis**.

"This process of enculturation creates rhetorical efficiency as well as poses an interpretive problem because readers come to regard conventional forms as natural, direct representations of fact unmediated by the artificial lens of design"¹

Conventions are present in all forms of design. Using a company logo on the header of a business letter or the page numbers on the external margins of a book are examples of conventions in print design. Screen design has icons, pull-down menus, search fields. Typography keeps bold letters for emphasis and left justification for western readers. Data displays have pie charts for percentage comparison and line graphs for change over time. Architects design doors that open towards the outside in public buildings and place swimming pools in backyards for privacy. Product designers still design cameras in horizontal rectangular format, even though they are digital now, so they do not need to follow the format of the film.

The presence of conventions in a community is propelled by a cycle: by repeatedly applying these conventions, the designers build users' expectations; to meet those expectations, designers keep on using the conventions. And so on, and so on.

But conventions are not immutable. Like society itself, conventions are continually in flux. Since conventions are based on the communities they are inserted in, they change accordingly to factors such as technology and cultural values. The conventions reflect the view of the times.

A drawing from the Renaissance, for instance, will show cultural aspects of that era. Steel and glass buildings and geometric compositions with sans serif text in black, white and red bring up Modernism.

"Images take meaning from stylistics and iconic conventions, from other images, and from words, as well as from natural objects. To interpret is to recognize that signs are not absolute, neutral, and fixed, but are, rather, in historical flux."²

ELLEN LUPTON

¹ (Fleckenstein, Hum and Calendrillo 2007)p.225

² (Lupton 1989). p.148.

RHETORIC IN INFORMATION GRAPHICS

“Design is choice. The theory of the visual display of quantitative information consists of principles that generate design options and that guide choices among options.”¹

EDWARD TUFTE

Information design is a field frequently seen as neutral, mostly because it is discernibly focused on objectivity, in opposition to advertisement or poster design—which are blatantly persuasive and subjective. *The Thames & Hudson Dictionary of Graphic Design and Designers* uses this distinction to define the term:

“Information Graphic Design: Generic term applied to those graphic-design projects required to communicate complex data or information to a specific range of audiences. The detailed analysis of user needs that underpins successful information graphic design differs from the more subjective approach applied to projects aimed at selling a product. The presentation of major signage schemes, healthy and safety issues, public services and technical manuals are all examples of information graphic design.”²

Considering, however, the premise that every communication is somehow rhetorical, it is logical to state that information design is rhetorical as well. The inspiration for this work was an article by Robin Kinross, called *The Rhetoric of Neutrality*, where the author demonstrate that even information design—a field usually seen as neutral—uses rhetorical devices:

“A distinction is customarily made between design for information, for example, timetables, and design for persuasion, for example, advertising, above all. The argument of this essay is that this distinction cannot be a clear one.”³

Information design has basically three goals: making information clear, compelling and convincing. It makes complex information clear as in easier to understand, unambiguous and unequivocal. It makes information compelling, because information should grab people’s attention. And information graphics should be convincing so that viewers believe what they see on them.

The pieces of information design—as graphic design pieces in general—are destined for a specific audience, purpose, and context. These factors have, therefore, influence in the creative decisions involving information design as well. The use of a certain typeface, layout or graphic element might make the piece look more inviting or accessible; and place emphasis in some information. In other words, the design decisions influence viewer’s interpretations of the information.

¹ (Tufte, *The Visual Display of Quantitative Information* 2001) p.191

² (Livingstone and Livingstone 2003) p.215

³ (Kinross 1989) p.134

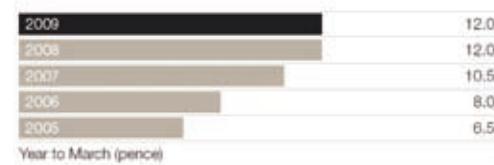
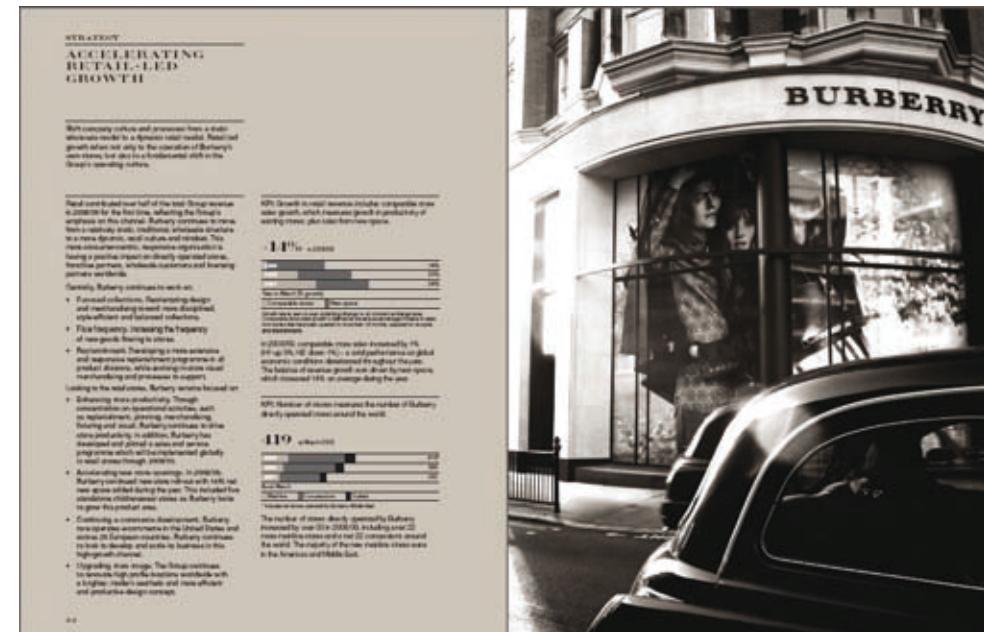
These design decisions reflect (when efficient) the point of view being advocated by the publication. In order to have an effective design piece, it is crucial that the graphic designer is aware of this point of view, so that he can make the right creative decisions to support it.

Selecting the structure of the information is also a rhetorical device. The same data may be perceived differently when displayed as a table, a pie chart, a bar chart or line graph, for instance. There are innumerable ways of displaying information, and the graphic designer must be attentive when choosing one.

The influence of graphic designers is not only in how to show information, but also in which information to show. The selection of data to be displayed has rhetorical consequences.

One point argued by defenders of a “neutral” information design is that statistics are “pure” information: free of value, free of intentions. But hasn’t the advertising industry used statistics for persuasion for ages? The scientific authority of statistics is a powerful tool for proving a point without being openly persuasive. People tend to trust an argument based on statistics and see it as “persuasion-free”. Telling viewers that nine out of ten dentists recommend Crest is nothing but a way to convince them to choose Crest over its competitors.

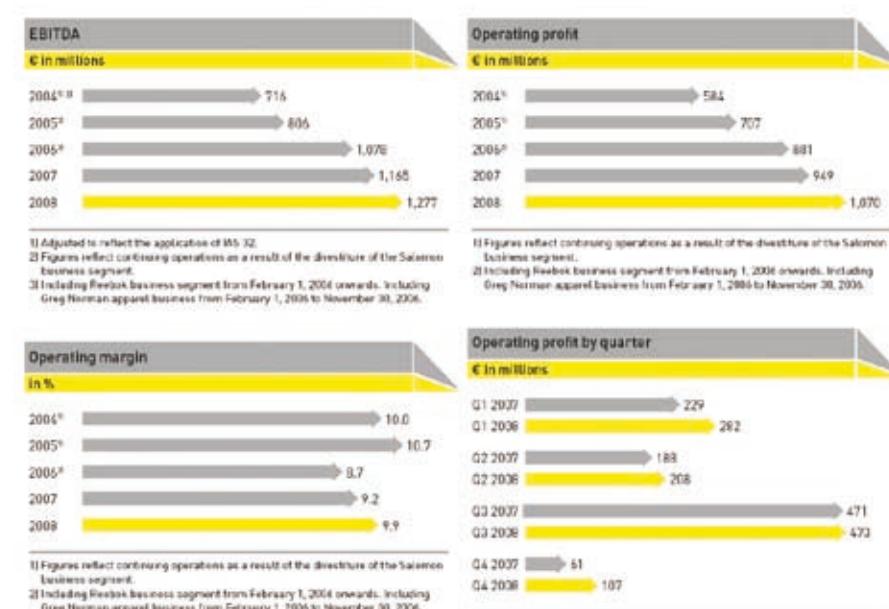
The graphical elements of any design work have the power to construct an image for the organization represented in the piece. The style of information graphics plays a role in the building of an image as well. The thickness of lines, the use of color, the typefaces: they all contribute to an overall image. The signage system of a building is there mainly to inform people, but it also says something about the corporation in that building. For instance, the signage for a hospital may use soothing colors and humanist typeface to convey calm and peace, since people in a hospital are frequently in distress. The signage of a corporation’s building, on the other hand, may show metallic backgrounds and sans serif typefaces to express modernity and connection to technology. In the same way, the use of colors, line thickness and images in infographics will be different in a tabloid and in a financial newspaper.



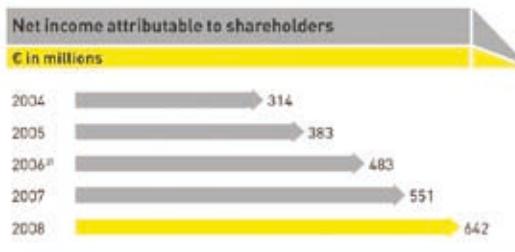
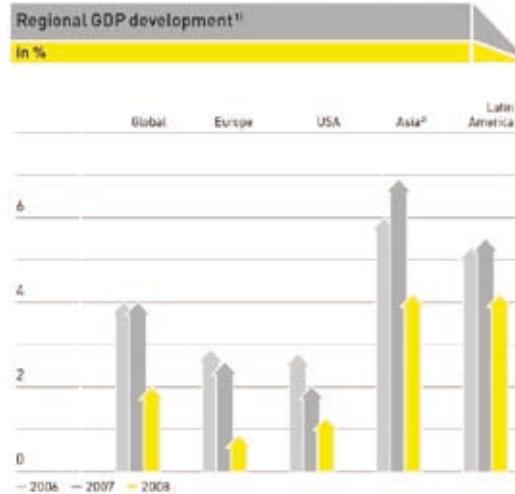
The Burberry 2008/09 annual report is an example of how information graphics are part of the branding. The overall image portrayed by the company in this publication—elegant, traditional, polished—is also visible in the charts.



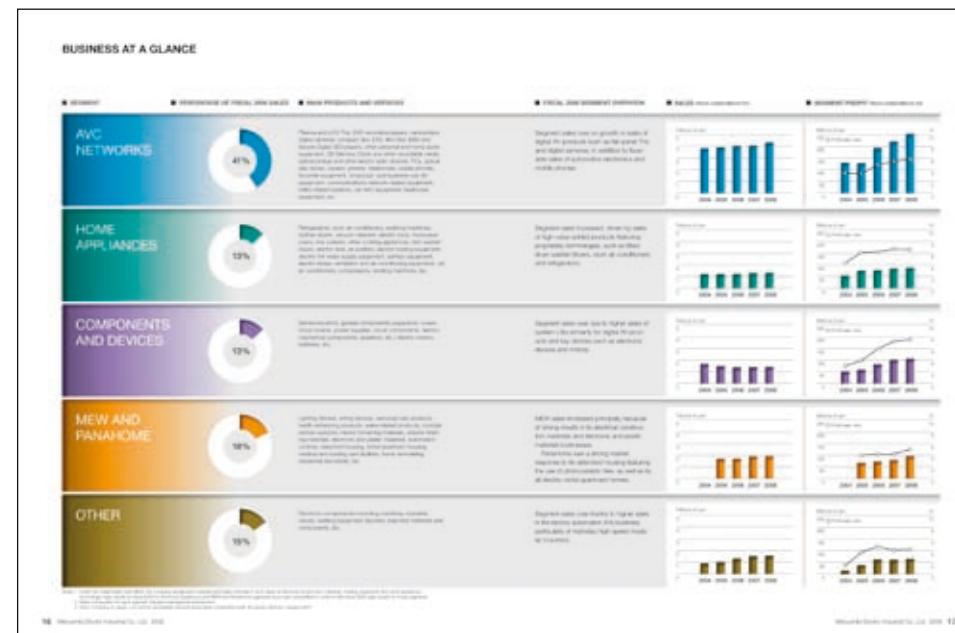
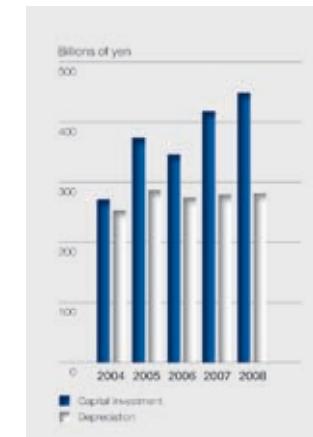
The Adidas 2008 annual report, on the other hand, portrays an image of modernity, technology and constant movement, present in all the graphic elements.



One factor contributing for the idea of movement is the use of arrowheads in the bar charts. Applying the arrows—also used in photographs and other graphical elements throughout the publication—to the bars not only convey movement, but also the idea that the bars are expanding in the direction the arrows point to. This way, even though the charts show accurate numbers, it looks like the variables—development, sales, income—are increasing.



When the information graphics—and graphic elements, in general—are not in tune with the image the publications wants to portray, they can harm the overall branding, by conveying a negative image. In the Panasonic 2008 annual report, the company declares its Brand Promise as “Panasonic generates ideas for life...today and tomorrow. Through innovative thinking, we are committed to enriching people’s lives around the world.” But instead of expressing innovation and future-orientated thinking, the graphics in the annual report look outdated and carelessly made. They even resemble automatically generated graphics from spreadsheet software.



JACQUES BERTIN AND HIS SEMIOLOGIE GRAPHIQUE

—What are information graphics made of?

A great contribution to the theory of information design was made by Jacques Bertin (1918-2010), a French cartographer who wrote the 1967 book *Semiolegie Graphique* (semiology of graphics). He defined seven basic variables for information graphics:

Size

It communicates well the quantitative variation.



Shape

It expresses well the identity of the object, and by comparison, the differences and similarities between objects.



Value

The variation in value of a color transmits a relation of order and relative differences.



Color

Like shapes, colors translate differences. The colors are charged with cultural and psychological meanings. Unlike values, colors cannot express an idea of order.



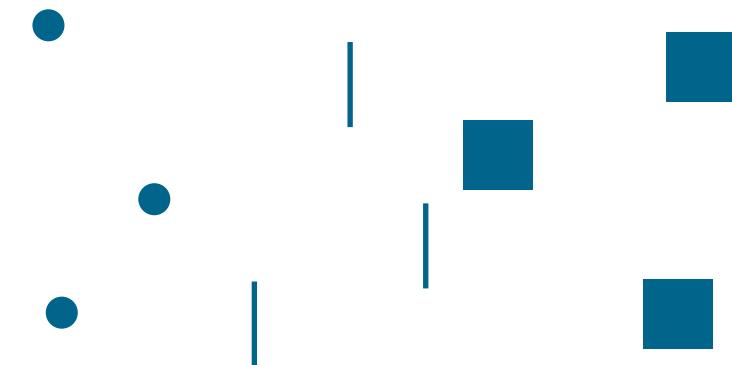
Texture

Patterns convey a relation of order and relative differences.



Position

It places a sign in relation to two axis. It expresses differences between signs in relation to the information in the axis.



Orientation

The angle of the object according to its center. It expresses differences between objects.



EXAMPLES

—How can we change perception?

One way to hide data in a chart is in the scale. By blowing up the scale, it is possible to conceal variation in the data. In this example, the two bar charts show the production of poisoned apples through the years of the Evil Queen's tyranny, year 4 being the point where Snow White was hiding in the dwarfs' house.

This chart's vertical axis show values from 0 to 400. The number of apples produced is so small comparing to those values, that the bars almost disappear, becoming lines. It is hard to visualize even major changes. Looking at this chart, the viewers may assume the conflict between Snow White and the Queen had no influence in the production of poisoned apples.

The vertical axis on this chart, on the other hand, shows values between 0 and 8 (8 being the value of the bar on the far right). Using this scale, it is clear that the production of poisoned apples increased significantly in year 4. From this chart, the viewers may deduce that the Queen's vendetta against Snow White affected directly the production of poisoned apples.

The table on the left, published on *Time*¹ magazine, wants to show Bulgaria as one of Europe's most corrupted nations. Bulgaria comes in the eleventh line of table, below other ten countries. With one glance at the page, the reader could easily see Bulgaria as one of eleven, or even ten, most corrupted countries in Europe. An attentive reader, however, can see that the number indicating Bulgaria's position in the regional rank is 28. By concealing some countries in higher positions in the rank, the table makes the argument of Bulgaria being corrupt stronger.

Bad Company. Bulgaria is among Europe's most corrupt nations

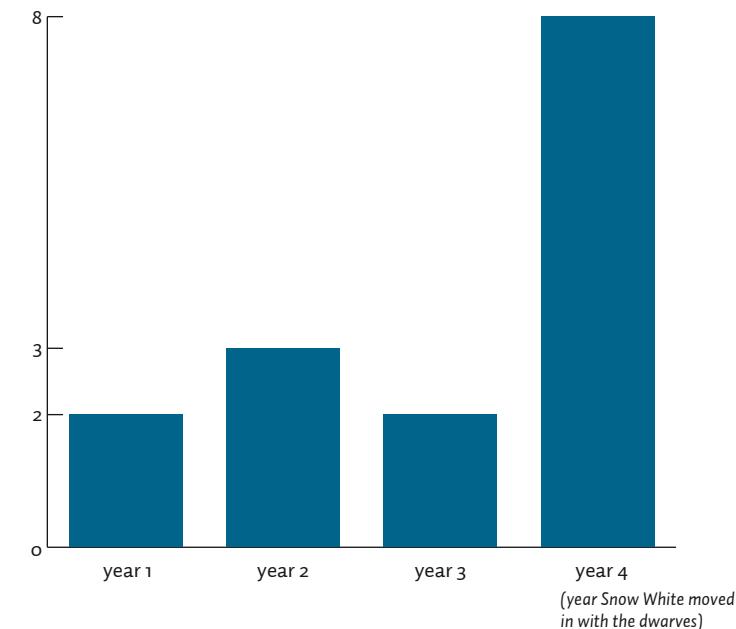
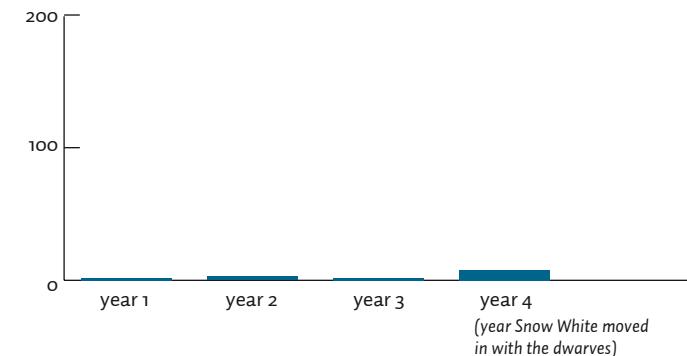
Regional Rank	Country	CPI 2009 Score
1	Denmark	9.3
2	Sweden	9.2
3	Switzerland	9.0
4	Finland	8.9
4	Netherlands	8.9
9	Germany	8.0
12	U.K.	7.7
14	France	6.9
18	Spain	6.1
27	Italy	4.3
28	Bulgaria	3.8
28	Greece	3.8
28	Romania	3.8

Source: Corruption Perceptions Index (CPI), Transparency International

¹ *Time*, May 31, 2010. p.27



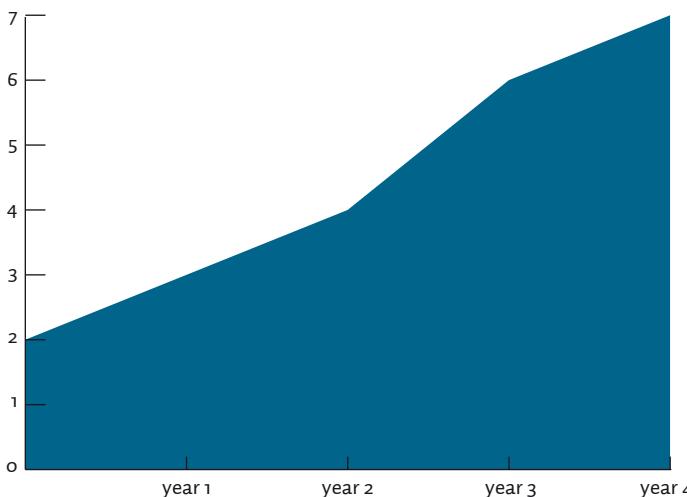
production of poisoned apples
vs. years of evil queen in power



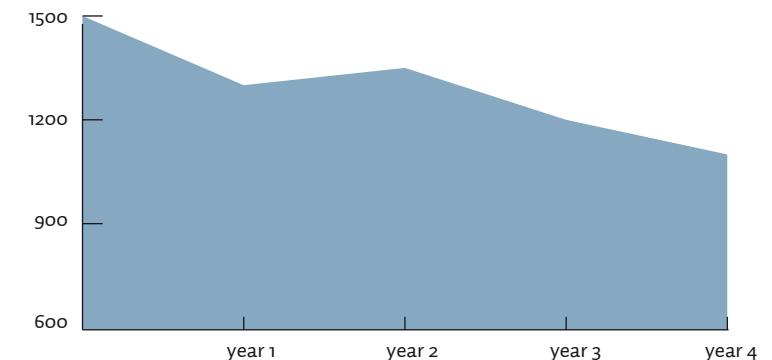


population of dwarfs and deers vs. years of evil queen in power

population of dwarfs



population of deers



These area graphs represent the changes in the population of dwarfs and deers in the Enchanted Forest through the years of the Evil Queen's tyranny. They are placed side-by-side so viewers can easily compare the development of both species.

The most predominant elements are the green and blue areas. By glancing at the areas, the viewers can see that the quantity of dwarfs increased, while the quantity of deers decreased, which is correct. But a quick glance may also leave the viewers under the

impression that there are far more dwarfs than deers in the forest. The actual numbers, however, are seven dwarves against 1.100 deers. This fact is not clear, though, because of the difference in the scales. The vertical axis of the left-side chart shows values from 0 to 7, while the one on the right side goes from 600 to 1500.

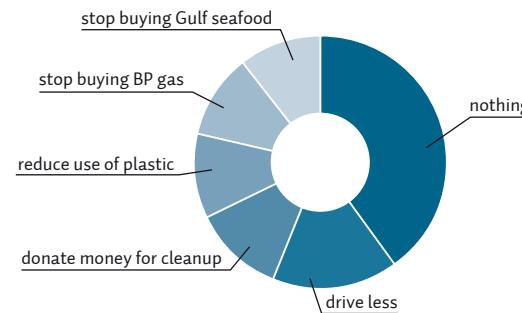
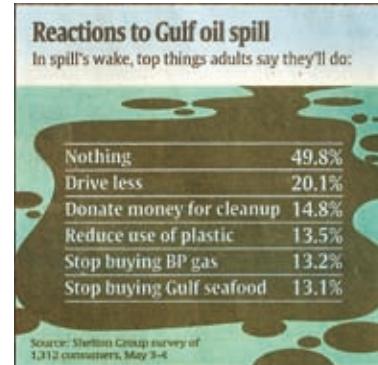
When comparing charts, unconformity in scale might be misleading, even the charts themselves being accurate.

While tables are usually read linearly item by item, graphics are read holistically, that is, as a whole. That makes tables appropriate for displaying specific data, but not for showing comparisons and relationships, which are clearer in graphics.

In a case where the publication is interested in de-emphasizing or even conceal relations—in an annual report, for instance—it is better to show data in a table than in a graphic, where comparisons are clearer.

This table, published on *USA Today*¹, does not show the survey's results as clearly or strongly as a chart would.
(chart below)

¹ *USA Today International Edition*, May 21-23, 2010



The following information design piece shows the production of corn by Munchkin farmers—characters from children's tale *The Wizard of Oz*—from 1895 to 1902. Both the table and the line chart show the same data, but the acute decrease in production in 1900 is much more visible in the chart.



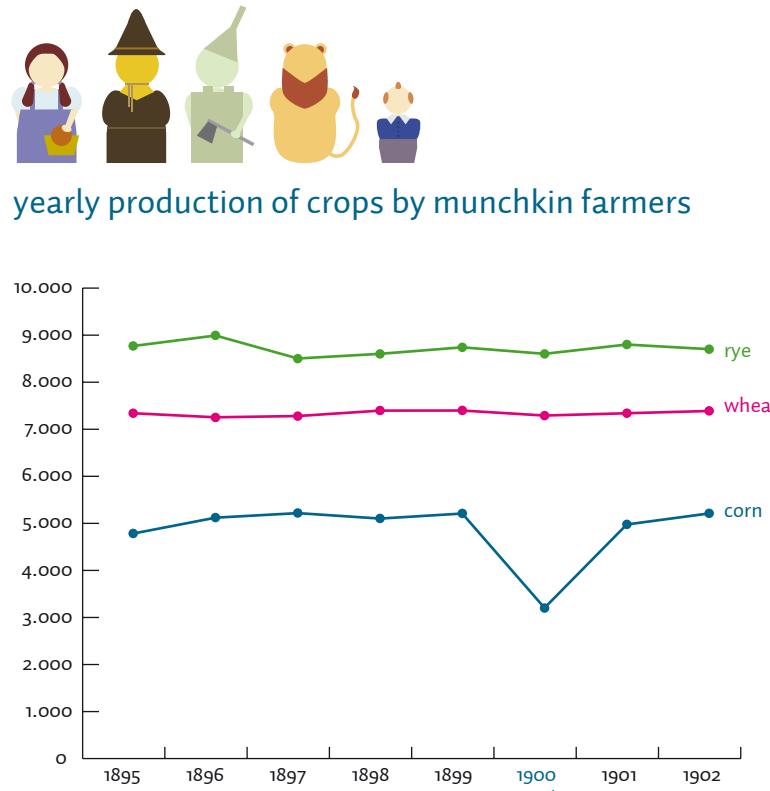
yearly production of corn by munchkin farmers

year	bushels of corn
1895	4.785
1896	5.123
1897	5.220
1898	5.104
1899	5.211
1900	3.200
1901	4.978
1902	5.213



A review of this line chart can reveal another rhetorical device: **the use (or lack) of context**. The chart on previous page shows the severe decrease in corn production in 1900 and nothing else. The chart below shows the context of the data. By showing how the production of other crops was constant throughout those years, the chart makes it clear that the decrease in corn production was caused by a factor that did not have any effect on other crops.

The insertion of a caption describing the events of 1900 (how Dorothy removed the Scarecrow from the fields and took him to the Emerald City with her, leaving the crops to the mercy of crows) adds further context, connecting the events to the drop in corn production in a cause-effect relation.



In 1900, the production of corn was seriously damaged by the removal of the local scarecrow, who was convinced of leaving the farm on a journey to Emerald City by a girl named Dorothy. The crows then took over the field, eating a big part of the corn.

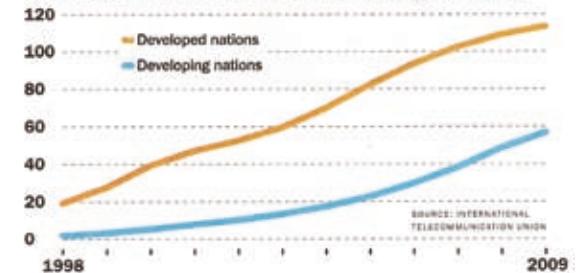
The use of comparison can bring context to data and reveal aspects that would remain hidden otherwise. In the same way, the use of captions and labels should be done cautiously, for it can change the perception of the data completely.

“To be truthful and revealing, data graphics must bear on the question at the heart of quantitative thinking: “Compared to what?” The emancipated, data-thin design should always provoke suspicion, for graphics often lie by omission, leaving out data sufficient for comparisons. The principle: **Graphics must not quote data out of context.**”¹

EDWARD TUFTE



YAKETY YAK Mobile-phone use in developing countries has more than doubled since 2005; China and India alone have a combined 1.2 billion subscribers. Below, the number of mobile subscriptions per 100 inhabitants



As part of an article about a study on the relation between mobile phones and cancer, *Time*² magazine published this line chart comparing the use of cell phones in developed and developing nations. The grouping of countries in “developed nations” and “developing nations” is not clear, since neither the article nor the chart list which countries are being taken into each group. Which “developed” countries? Which “developing” ones? All of them? Which countries of the world fall in each of these categories? Is the data from this chart coming from every country in the world? The selection of the countries where the data comes from changes the outcome of the chart and a list of those countries would have provided context for the reader, possibly changing the way the chart is perceived.

¹ (Tufte, *The Visual Display of Quantitative Information* 2001) p.74

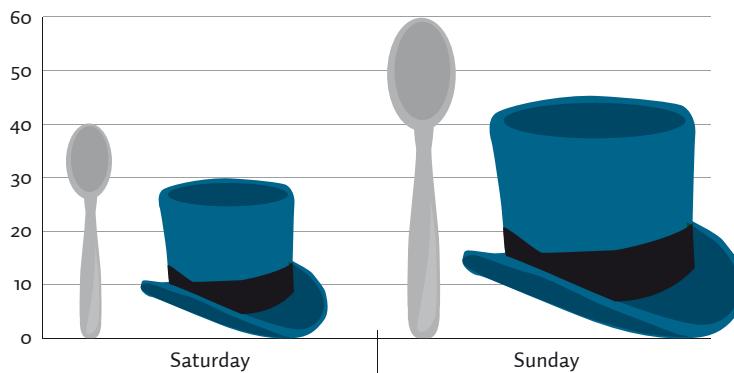
² *Time*, May 31, 2010. p.12

The use of illustrations in charts—instead of bar or lines—might change the perception viewers have of the information. When the value in the chart is represented by length, the use of size-changing figures is a problem, because they add the dimension of width. That is, **instead of comparing lengths, the viewers are led to compare areas, which is a distortion of the linear data**. Even further, the viewers might have a three-dimensional notion of the illustrated object, which may increase their perception to volumes. Therefore, a growth of 2 times may be seen as a growth of even 8 times.

The example below shows the relation between the production of hats by the Mad Hatter (from *Alice in Wonderland*) and the amount of sugar he consumed in his tea. In the chart on the left, the amount of produced hats is shown with an illustration representing a hat, while the amount of sugar is represented by an illustration of a spoon. The charts compare data from two days—Saturday and Sunday—in order to establish a relation between the sugar and production of hats.

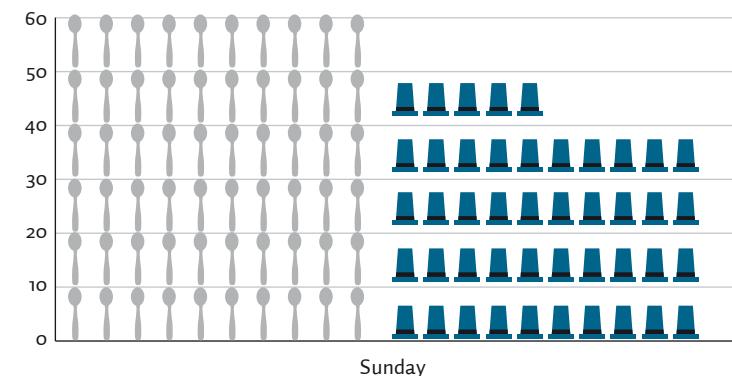
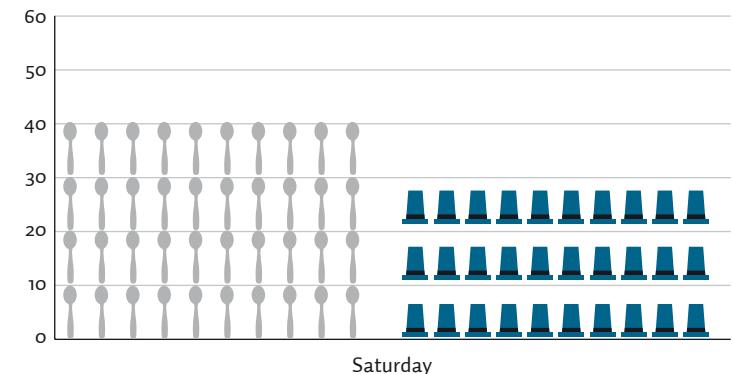


**production of hats vs. spoons of sugar
in the tea consumed by the mad hatter**



So that the figures are not distorted, they change not only in length but also in width from Saturday to Sunday. That way, the Sunday looks enormous comparing to the previous one, which makes it look like the growth in hat production was a lot bigger than the actual 50%. And, since the hat is rather wider than the spoon, its change in area from Saturday to Sunday is more ostensible. It might cause the impression that the production of hats has grown more than the consumption of sugar, even though they have grown in the same rate.

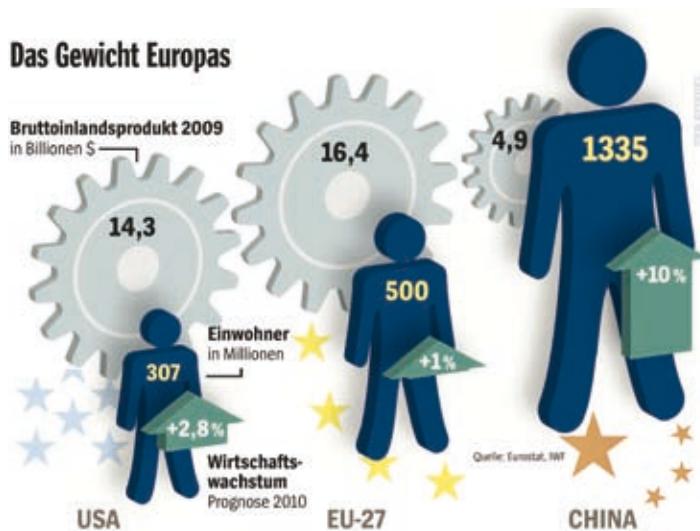
So that the use of illustrations does not distort the data, the focus should be on only one dimension. Instead of using the size of figures to compare amounts, the chart can employ repetition of same size icons. The chart below shows the data more accurately, for it utilizes repetition of figures. The spoons and hats occupy the same width, which brings the focus to the changes in length.



Some examples of the use of illustration in charts:

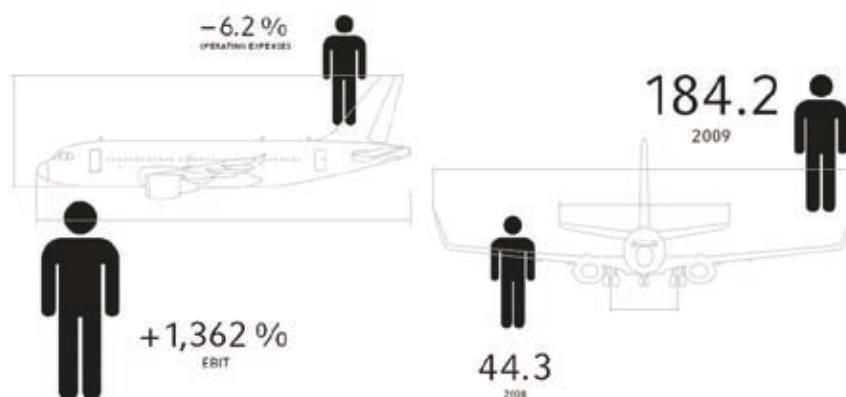
The chart below was published on *Der Spiegel*¹ magazine. The title is "The weight of Europe". The gears represent the GDP, the human figures represent the population, and the arrows represent the economical growth.

Das Gewicht Europas



¹ *Der Spiegel*, 19, 2010, p. 23

From the Air Berlin 2009 annual report. The first chart represents expenses and income, while the second represents the operating cashflow.

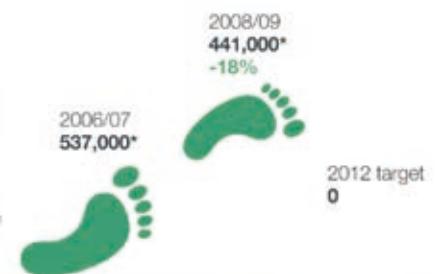


Examples from the Marks & Spencer 2009 annual report.

Become carbon neutral CO₂ emissions tonnes

Analysis: We calculate carbon emissions from our UK and Republic of Ireland stores, offices, warehouses, business travel and logistics so we can monitor our progress towards becoming carbon neutral.

*This year, figures were recalculated using Defra's 2008 conversion factors and benefited from the inclusion of green electricity tariffs.



Send no operational waste sent to landfill tonnes

Analysis: We are aiming to ensure that M&S operations in the UK and Republic of Ireland (stores, offices and warehouses) will send no waste to landfill by 2012.

*The 2008/09 figures have been released using a more accurate calculation of store bin weight.



Improve energy efficiency (stores) kWh/sq ft

Analysis: We are monitoring the amount of energy used in our stores with a view of reducing by 25% per square foot of floor space by 2012. Gas usage included in this year's figure has been adjusted using standard degree days, to reflect the cold winter of 2008/09.

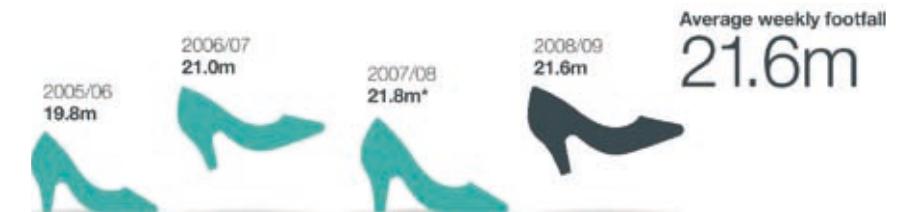
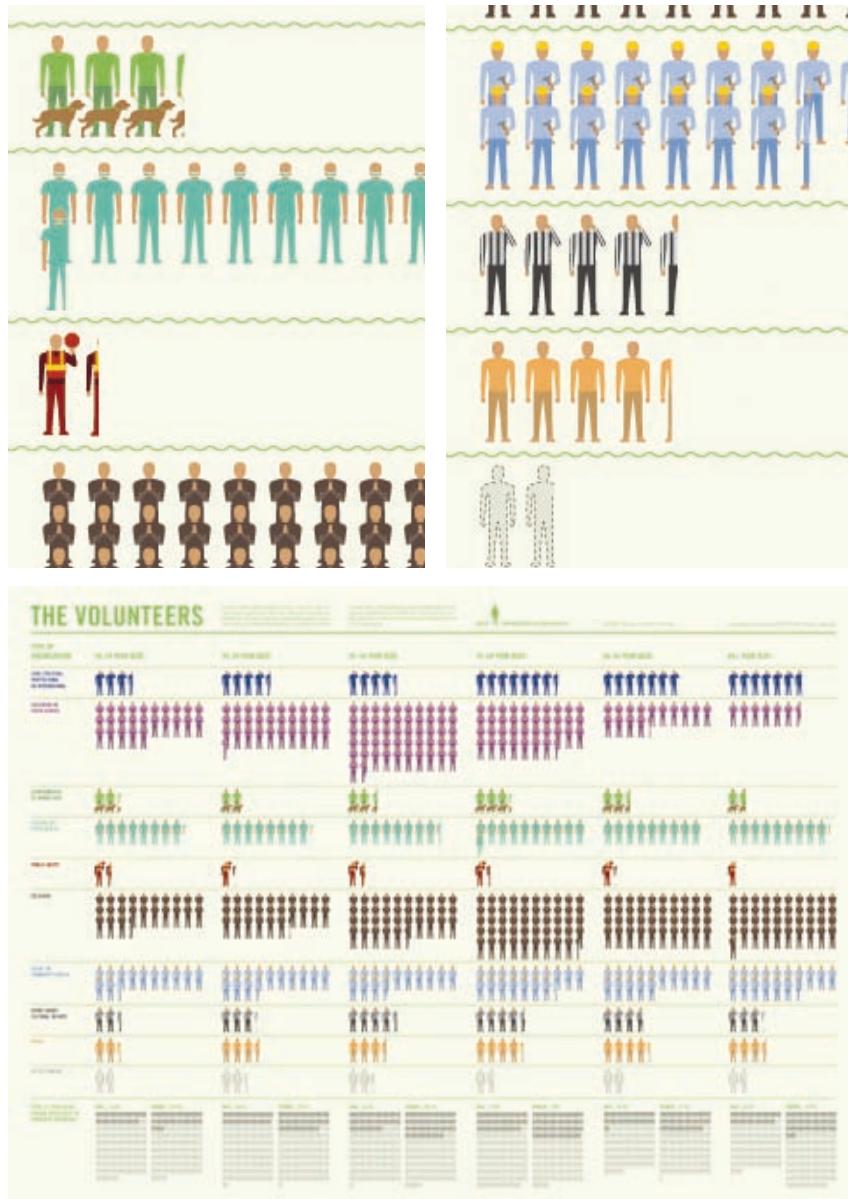


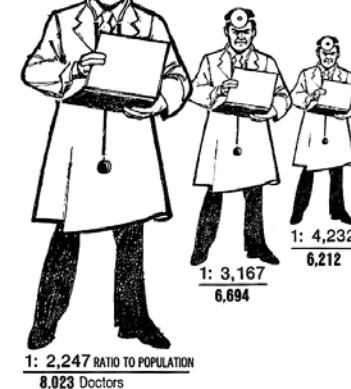
Chart published in GOOD magazine, in February 2010 about people who volunteered in the United States during the year of 2009.



THE SHRINKING FAMILY DOCTOR In California

Percentage of Doctors Devoted Solely to Family Practice

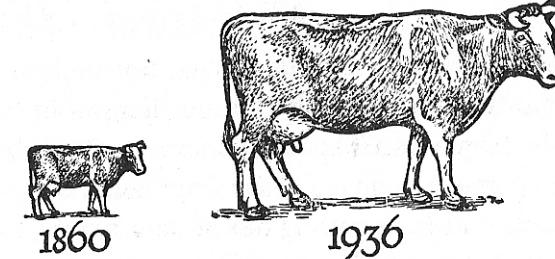
Year	Percentage
1964	27%
1975	16.0%
1990	12.0%



Below are two examples from classic books. On the top, it is the Incredible Shrinking Doctor, from Edward Tufte's *The Visual Display of Quantitative Information*. Below, it is The Crescive Cow, from Darrell Huff's *How to lie with statistics*.

"Another way to confuse data variation with design variation is to use areas to show one-dimensional data. And here is the incredible shrinking doctor, with (...) the exaggeration from the overlaid perspective and the incorrect horizontal spacing for the data."¹

THE CRESCIVE COW



"There is still another kind of danger in varying the size of objects in a chart. It seems that in 1860 there were something over eight million milk cows in the United States and 1936 there were more than twenty-five million. Showing this increase by drawing two cows, one three times the height of the other, will exaggerate the impression in the manner (...). But the effect on the hasty scanner of the page may be even stranger: He may easily come away with the idea that cows are bigger now than they used to be."²

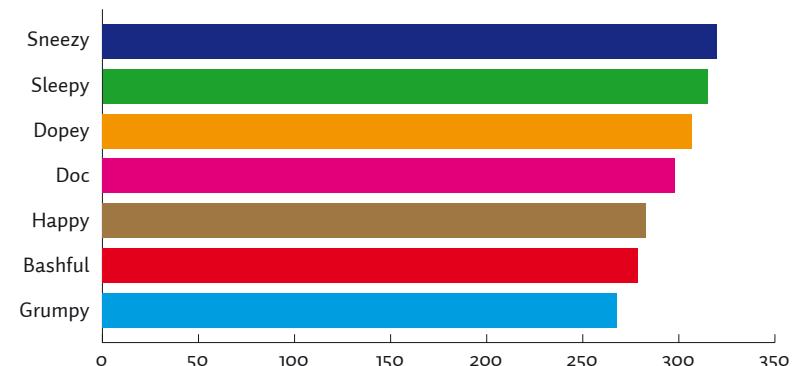
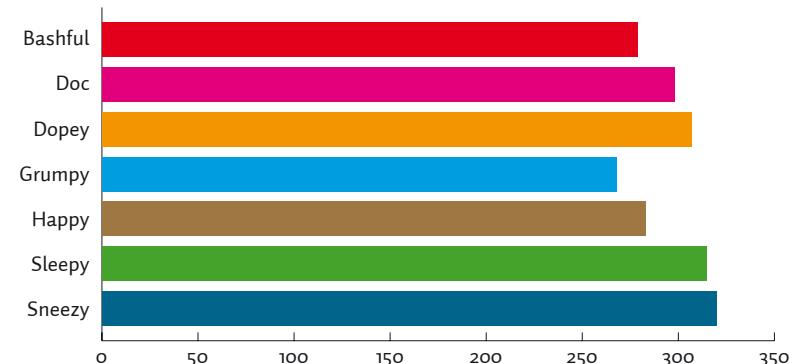
¹ (Tufte, *The Visual Display of Quantitative Information* 2001) p.69.
Graphic originally published by the *Los Angeles Times*, August 5, 1979, p.3.
² (Huff 1954) p.74



production of gold in the dwarfs mine

dwarfs	average daily gold production (in grams)
Bashful	279
Doc	298
Dopey	307
Grumpy	268
Happy	283
Sleepy	315
Sneezy	320

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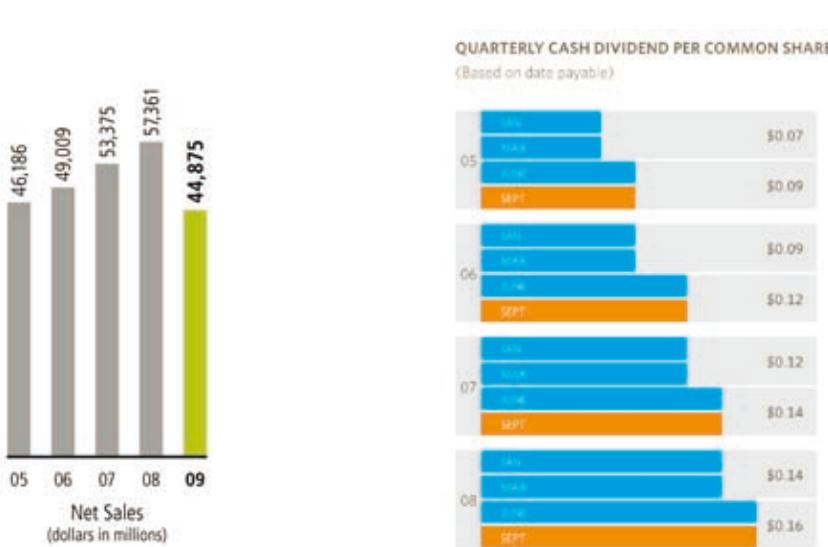
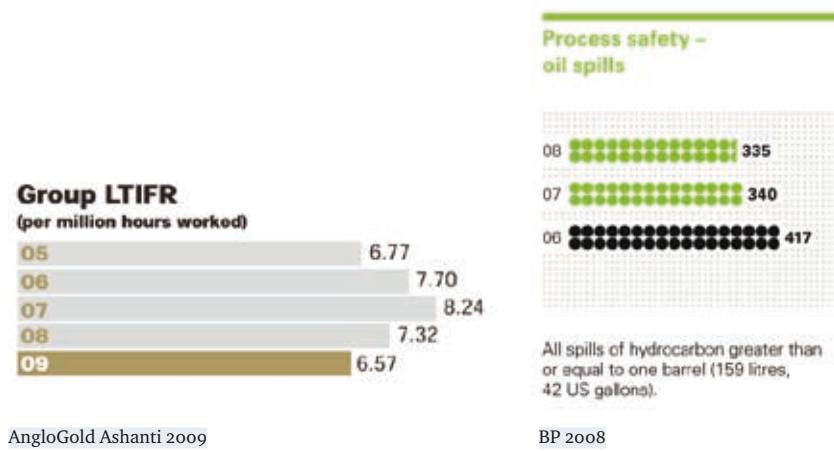


Ordering tables and charts alphabetically might camouflage information that would have been obvious had the piece been ordered by values. In long lists, it is useful to have it ordered alphabetically, in order to find entries quickly. However, when the order of the represented amounts is important, using a quantitative order makes the information clearer for the viewers.

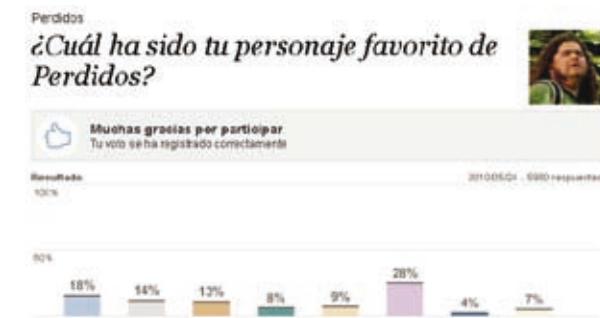
This example shows the average daily production of gold by each dwarf at the dwarfs' mine. The first table shows the dwarfs in alphabetical order, while the second one goes from the largest to the smallest producer. In the first table, there is little comparative potential, while in the second table the viewer can see immediately who produces the most/the least.

Transferring the data to bar charts, the amounts are more visibly clear than in table, but the order still affects the comparison. The table on the top is alphabetically ordered, while the table on the bottom goes from largest producer (on the top) to smallest producer. On the top table, the viewers need to look around and compare widths of bars in order to classify the amounts. The bottom table, on the other hand, provides an easy comparison, where the viewers can establish the quantitative order at a glance.

When dealing with changes over time, both tables and bar charts need to follow the chronological order, despite of growth or decrease of values. Here are some examples from annual reports.



The Spanish newspaper *El País* carries out surveys on its website about current events, from politics to entertainment and sports. The viewer sees the form with a question and a list of answers to choose from. After the viewer clicks on one alternative, another page loads, showing the results from the survey so far on a column chart. The order of the columns follows the order of the list of alternatives, which by the way, follows a random order. On the results page, however, there are no labels naming the columns, so the viewer needs to remember the order from the previous page, which is harder to do when there is no logical order to begin with. In the example below, *El País* asked its readers who was their favorite character from the TV series *Lost*. From a list of eight names, comes a confusing column chart with very little chance of someone actually remembering the order from the previous page.



A chart drawn with three-dimensional appearance is a complete distortion of data. In a pie-chart, the point is to compare areas, which is a two-dimensional element. By extruding the chart into a cylinder, the designer distorts the areas and makes it difficult for the viewer to read the data. Besides, there is an extra shape added to the chart — the height of the cylinder. The pie segments located in the front look larger than they actually are, because of the addition of the height.

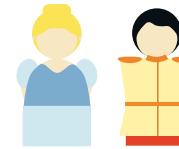
In this example, both pie charts represent how Prince Charming divided his dancing time during a ball. Each color corresponds to a different woman, and the area of each section corresponds to the percentage of the total time each woman danced with the prince.

The chart on the left has an illusion of three-dimensionality, which misrepresents the data. The areas of the top (the actual pie chart) are distorted, and the segments in the front—Drizella, the Duchess, and especially the Countess—are magnified. The Countess has more visual importance than Cinderella, which is on the back, even though Cinderella danced with Prince Charming for longer (30% for Cinderella and 20% for the Countess).

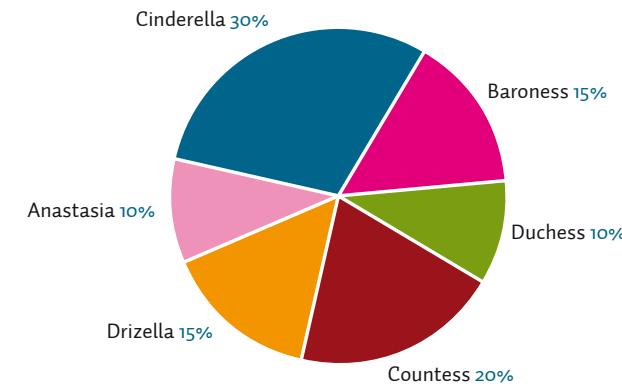
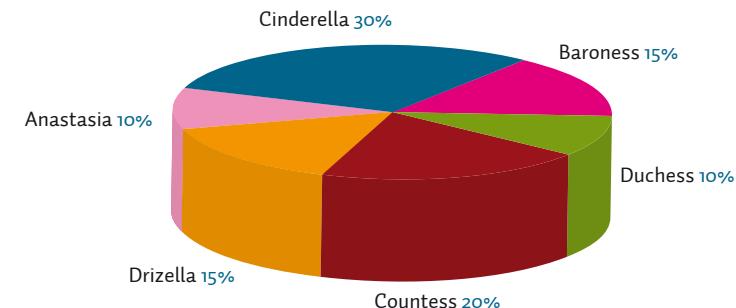
On the right, a flat pie chart is a better representation of the actual numbers, making it easy for the viewers to compare the areas and notice that Cinderella spent more time dancing with Prince Charming than any other woman.

“Don’t use the third dimension.
Why do you want your chart to
jump off the page or screen?
I’d rather it stayed there and
let me read it!”¹

NIGEL HOLMES



percentage of time spent dancing with prince charming at the ball



¹ (Holmes July 2000)

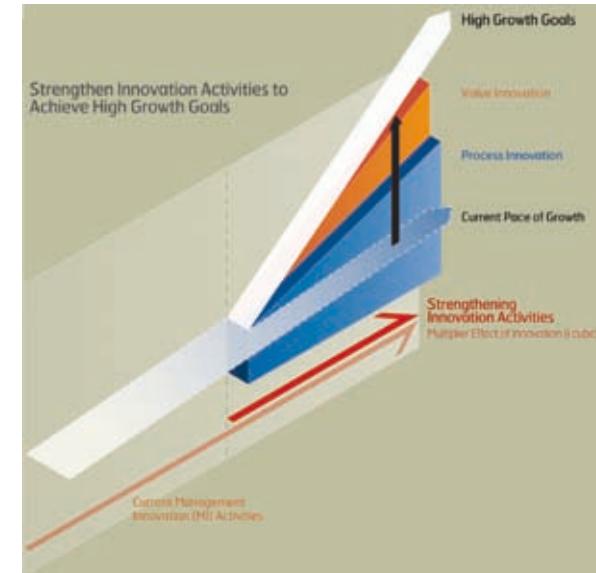
Here are some examples of information graphics using three-dimensionality. Below, a chart published by *GOOD* magazine. Note the massive presence of black, when the variable represented by this color is actually the one with the lowest values.



Subtle three-dimensionality, but with big perspective distortion pie charts from Estée Lauder 2009 annual report.



Dr. Pepper/Snapples 2008 annual report.



Cumulative Output of Shipped Steam Turbines for Power Generation

Year	Cumulative Output (MW)
1950	100
1955	400
1960	1,000
1965	10,000
1970	30,000
1975	60,000
1980	100,000
1985	130,000
1990	150,000
1995	170,000
2000	190,000
2005	210,000
2007	230,000

Outlook

→ **1950** Toshiba's first unit, with the largest capacity to date of any unit manufactured in Japan (1,000MW)

→ **1955** Toshiba's first export unit

→ **1960** Toshiba's first unit, with the largest capacity to date of any unit manufactured in Japan (7,000MW)

→ **1965** Largest capacity to date of any unit manufactured in Japan (375MW)

→ **1970** First domestically produced nuclear power generation steam turbine (90MW)

→ **1975** World's largest capacity steam turbine to date (1,000MW super critical steam turbine)

→ **1980** World's first ultra-supercritical steam turbine (700MW)

→ **1985** First domestically produced nuclear power generation steam turbine (750MW)

→ **1990** First 1,000MW class super critical steam turbine

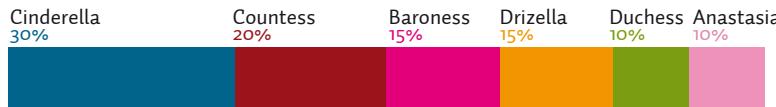
→ **1995** First 1,000MW class super critical steam turbine

→ **2000** First 1,000MW class super critical steam turbine

→ **2005** First 1,000MW class super critical steam turbine

→ **2007** Toshiba's steam turbines achieve a cumulative total output of 100GW

Apart from the use of three-dimensionality, the use of a pie chart itself can be discussed. Pie charts can be the appropriate choice when the goal is to compare one part to the whole, but is it the best way to compare the shares themselves? In pie charts, the areas have different shapes, what makes the comparison more difficult. In that sense, bar charts might be more successful for comparing how much time each lady danced with Prince Charming.



Here are some examples of percentage visualization. Below, the use of stacked dots and squares. On the top, part of the article “The State of Internet”, published by focus.com. On the bottom, a chart published by businessweek.com.

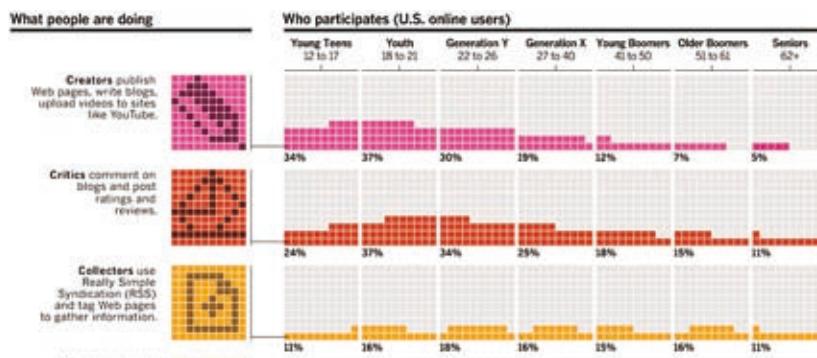
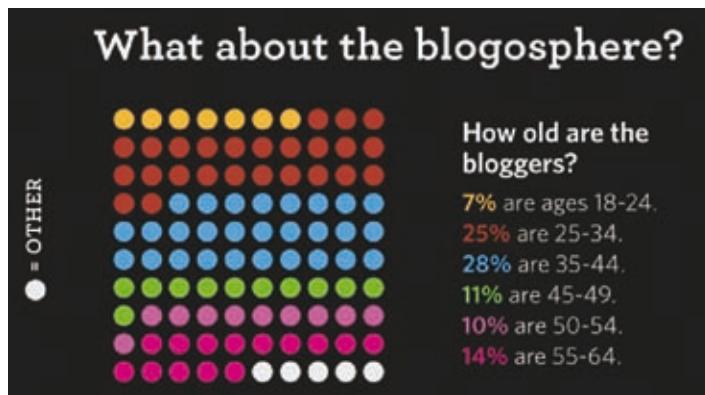
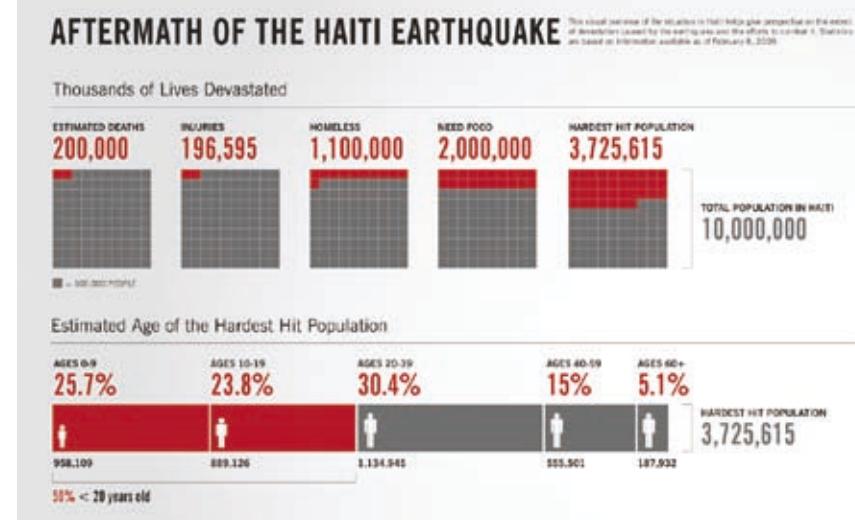


Chart published by GOOD magazine, using both stacked squares and bars to show percentage.

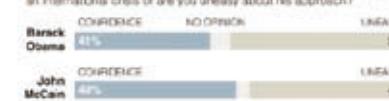


The New York Times/CBS NEWS Poll

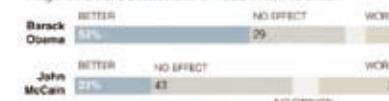
Candidates and Foreign Policy

More voters expressed confidence in Senator John McCain's ability to deal with national security and foreign policy issues than in that of Senator Barack Obama.

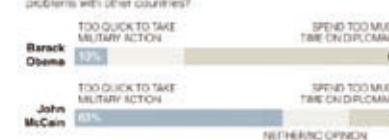
Do you have confidence in the candidate's ability to deal wisely with an international crisis or are you uneasy about his approach?



If elected president, would the candidate make the United States' image in the world better, worse or would it have no effect?



What would concern you more about the candidate's handling of problems with other countries?

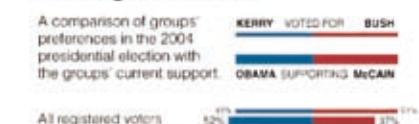


The chart on the left, published by *The New York Times* on its website, uses bars to represent percentages. The use of color here favors one of the mentioned candidates, since blue is usually connected to the Democratic Party, as shown in the chart below, also published by *The New York Times* website.

The New York Times/CBS NEWS Poll

Tracking Preferences

A comparison of groups' preferences in the 2004 presidential election with the groups' current support.



RHETORIC IN CARTOGRAPHY

Cartography is a special kind of information design, concerned with spatial information. It is the study and practice of making maps.

“What do advertising and cartography have in common? Without doubt the best answer is their shared need to communicate a limited version of the truth. An advertisement must create an image that’s appealing and a map must present an image that’s clear, but neither can meet its goal by telling or showing everything.”¹

Are maps a reproduction of world? Can three-dimensional realities be reproduced in two dimensions? The myth that the map gives us the world exactly as it is might be dangerous, for it implies that maps have no construction, no point-of-view, and no judgment.

“A good map tells a multitude of little white lies; it suppresses truth to help the user see what needs to be seen. Reality is three-dimensional, rich in detail, and far too factual to allow a complete yet uncluttered two-dimensional graphic scale model. Indeed, a map that did not generalize would be useless.”²

Maps are a reference, a representation of reality. Cartographers have the challenge of representing big three-dimensional locations through small bi-dimensional areas. This translation requires a *selective view of reality*. That is, maps cannot convey the whole information, but only parts of it. Maps are always made based on

- ¹ (Monmonier 1996)
² (Monmonier 1996)
³ (Wood 1992) p.24

selection and simplification of features. During the process of selection, simplification and construction of maps, the mapmaker pervades the piece with his own vision and his own priorities.

“(...) maps, all maps, inevitably, unavoidably, necessarily embody their authors’ prejudices, biases and partialities. (...) Even to point is to point... somewhere; and this not only marks a place but makes it the subject of the particular attention that pointed there instead of... somewhere else.”³

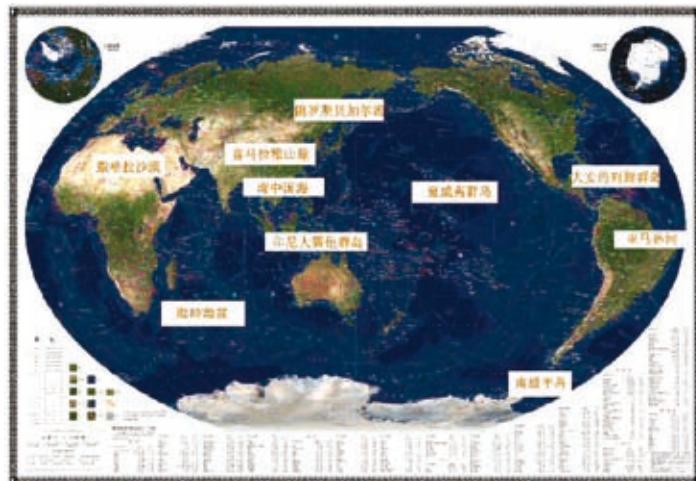
After deciding *what* is shown in the map, the mapmaker must decide *how* to visually represent the information. How to make the represented reality recognizable? How to direct viewers to the desired information? Which information should be placed on the left, on the right, on the top, at the bottom? Which information should be perceived as the most important one? What kind of maps conveys this information the best possible way?

The answers to these questions depend on the answer to the following ones: What is the map supposed to communicate? What does the mapmaker want the viewers to perceive from the map? What is the point? Every map is a construction based on the apprehension of who the viewers are and how a point should be communicated to them. In short, maps are made to show someone something.

“Every map shows *this*... but not *that*, and every map shows what it shows this way... but not *the other*. Not only is this inescapable but it is precisely because of this interested selectivity—this choice of word or sign or aspect of the world to *make a point*—that the map is enable to work.”¹

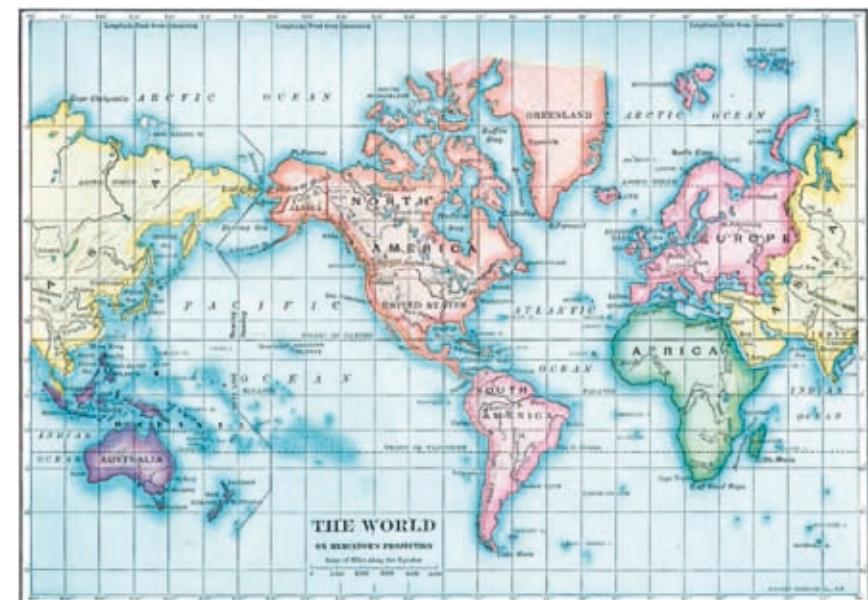
¹ (Wood 1992) p.1

In order to succeed as communication pieces, maps need to be viewed, to be read. If it is seen as useless, irrelevant or unbelievable, the map will not be viewed and therefore will have failed. A map needs to convince the viewers that it is needed, that it is relevant.



A map also sends subtle (or not so subtle) messages about its authors or publishers. A map that resembles the ones found in scientific dissertations suggests the piece is scholarly, and therefore it can be trusted as such. A map with far-out graphic features and interactive function vaunts the author's sense of innovation.

Europeans are used to see world maps with Europe in the center, and see this as the rational way to portray the planet, since the prime meridian is by convention placed in Greenwich, England. People from the United States, however, are used to look at maps with North America in the middle, dividing Asia in two parts on the sides. And Western people might be surprised while looking at Chinese and Japanese maps and seeing Japan in the middle. It may seem indifferent for the map viewer, which part of the world is placed in the middle of map, but the centered position confers importance to the portrayed object. Being the geographic center can imply the idea of economic, social and political center. Otherwise, why do maps show different countries in the center depending on where the map is designed? Maps with Europe in the middle have spread to colonies the idea that their metropolis—European countries—are the center of the world, and Latin American countries still use Europe-centered maps.



Apart from the center, maps follow an even stronger convention: top and bottom. It looks like a very easy decision because, after all, it is a fact: Europe, North America, and Asia are at the top part of the planet and South America, Africa and Oceania are at the bottom, so the maps should show that. Right? Wrong. Actually, technically speaking, the planet has no “top” or “bottom”, since it is a spherical body flying through three-dimensional space.

In maps, as in every two-dimensional piece, the question of *top/bottom, up/down* and *above/below* become important. What goes on the top or bottom of a map is, however, arbitrary. There is no natural or scientific justification for that. It is a *choice*. And it hasn't always been the same. The North-up convention is often accredited to Claudius Ptolemaeus (90 – 168), Greek scientist who lived in Egypt. But, still in the middle ages, East was often placed at the top of maps. This is the connection between the terms “Orient” and “orientation”.



In the age of ocean exploration, when European navigators started using the North Star as a fixed point for navigation, European cartographers used the North-up convention. It placed Europe at the top of maps, reflecting (consciously or not) its dominant position in world politics and economy at the time.

As in the “center/margins” positioning, the “top/bottom” placement in maps might seem harmless, but it can affect considerably people's perception of the world. We use the words *up* and *down* routinely in reference to location—“fly down to Australia”, “drive all the way up to Canada”. Even with no mention to maps, people are used to the idea that Europe is *above* Africa, and that Latin America is *below* North America. Since we usually relate height to importance—like in the top of rankings, for example—the North-up convention reinforces the notion that northern countries are more important than southern ones.



Buckminster Fuller's Dymaxion

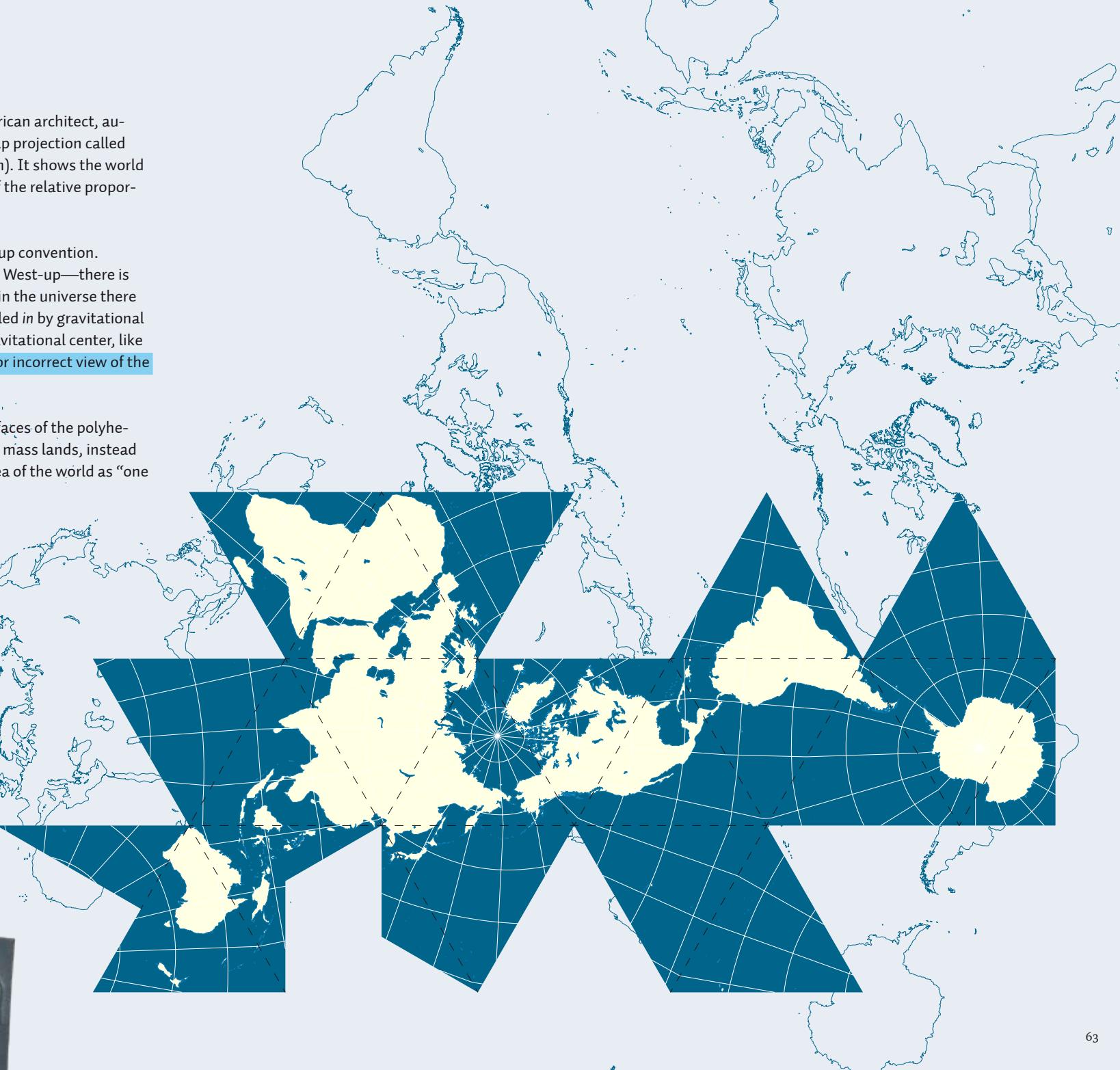
Richard Buckminster Fuller (1895 –1983), an American architect, author, designer, and inventor, created in 1946 a map projection called Dymaxion™ map (also known as Fuller Projection). It shows the world as an unfolded polyhedron which retains most of the relative proportional integrity of the globe map.

The Dymaxion™ map does not follow the North-up convention. Neither does it follow any South-up, East-up nor West-up—there is no right way up. Buckminster Fuller claimed that in the universe there is no up and down, only in and out. People are pulled *in* by gravitational forces and move *up* by moving away from the gravitational center, like climbing stairs, for instance. There is no correct or incorrect view of the Dymaxion™ map.

The “unfolding” of the Earth into the triangular faces of the polyhedron shows the continents as almost contiguous mass lands, instead of the usual separated blocks, supporting the idea of the world as “one island earth”.



Buckminster Fuller
and his creation



All those conventions are, however, accepted as facts by most people, mostly because of the credibility of maps. Maps are a powerful tool for persuasion, for they carry an authority, an image of objectivity and neutrality. **People trust maps.**

The following is a reproduction from the article *A political look at territory*, written by Philippe Rekacewicz for the newspaper *Le Monde* in May 2000, which deals with the use of maps for persuasion.

"A map, which is a minute representation of vast territories, is a truncated picture of reality. It is a lie by omission. Representation by symbols always means sacrificing information. Not everything that happens over an area of hundreds of thousands of square miles can be contained on a sheet of paper. The cartographer selects the items he wishes to represent on theoretical grounds. His job is to synthesise, simplify and omit, and his final product is a filtered document. Aspects that may be important - but are more usually considered secondary or superfluous - are removed. The map is simplified to make it legible. In so doing, the author imbues it with his own vision of the world and his own priorities.

Maps are subject to all kinds of manipulation, from the crudest to the most subtle. They are eminently political objects, and governments rightly consider them an effective propaganda tool. A few examples from the Arab world will serve to illustrate this. The day after the invasion of Kuwait by Iraqi troops, Saddam Hussein appeared on television with a new official map on which Kuwait was shown as a province of Iraq. He claimed that geography proved he was right: Kuwait, situated at the mouth of the Tigris and Euphrates, was a "natural part" of Iraq. For many years the Moroccan government censured all publications containing maps that distinguished between Morocco and former Spanish Sahara. Even a dotted line between the two territories was enough for the publication to be banned. In Arab countries, the mere mention of the name "Israel" on a map was sufficient cause. Either the word was replaced by Palestine, and Israel disappeared from the index, or a graphic item was conveniently placed over the offending country. The matter was so sensitive that the commercial departments of French school publishing houses intervened directly with the editors of text-book series to impose an acceptable representation of Morocco and the Middle East and thus avoid the loss of valuable markets in the French-speaking countries of North Africa.

The depiction of political frontiers is a risky business. It would be wrong to think there are "official" versions of the world's political divisions. Even the cartography departments of certain United Nations agencies are careful to state on their maps that they bear no responsibility for the depiction of borders, which are indicative only. To avoid offence, the World Bank recently "advised" its cartographic department not to produce maps of the Indian sub-continent on which the Kashmir region figured too prominently. The varying national and international views of territory give the map-maker only too great a choice. China seen by the Chinese does not coincide with China seen by the Indians.

But cartography is more than the tracing of borders. It is also a picture of the relations between people and territory. Maps enable us to comprehend at a glance how territory is organised and occupied, and the extent and consequences of conflicts. Not until a map was made of the Great Lakes region at the end of 1994 after the Rwandan genocide did we realise that terrified populations had fled hundreds of miles through the bush before being settled in refugee camps. The historical dimension also adds to our understanding. African issues cannot be grasped properly without maps of the colonial period. Similarly, the present division and spread of the major ethno-linguistic families can only be understood with the help of maps of the great empires of the past. This dual approach, geographical and historical, sharpens our understanding of the major issues of the present day. It can help us to be a little less mistaken when we come to assess their significance. Maps let us view territorial, economic and political developments from the necessary distance. They set the stage and position the actors, helping us to ask the right questions rather than giving us the answers. They require us not to jump to conclusions, since the connections between the phenomena shown on a map are rarely straightforward. A published map is a complex, subjective message offered by an author to his readers. It has to be read in a clear-headed and critical manner."¹

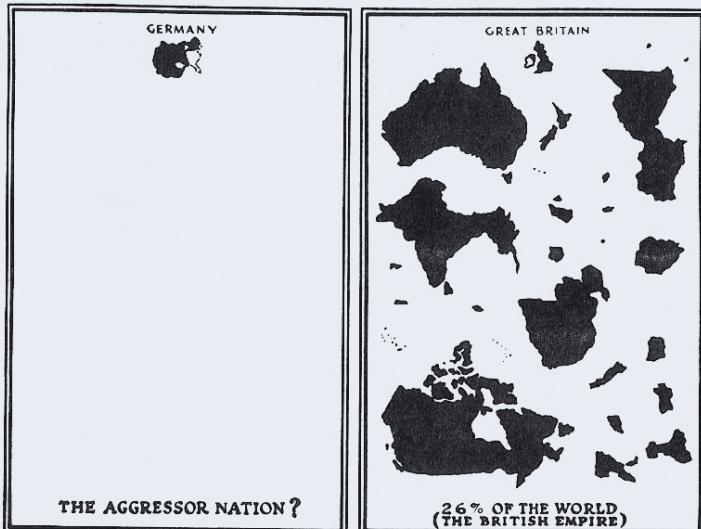
¹ (Rekacewicz 2000)

Facts in Review

From 1939 to 1941, before the bombing of Pearl Harbor, the German Library of Information in New York published a free weekly newsletter called *Facts in Review*, with the latest news, historical overviews, and general information about Germany from the Nazi point of view. This publication used cartography as a tool for propaganda, in order to build sympathy for Germany and diminish support for Great Britain and France.

The chart below, "A Study in Empires"¹, uses maps to compare the area of Germany with the area of British territories around the world. How can poor little Germany be the "aggressor nation" against an "Empire" that cover 26% of the world?

A STUDY IN EMPIRES



¹ From (Monmonier, *How to Lie with Maps* 1996) p.102. Originally from *Facts in Review* 2, no. 5 [February 1940]:33

² Text and image from (Monmonier, *How to Lie with Maps* 1996) p.106. Image originally from *Facts in Review* 1, no.16 [30 November 1939]: 3



Useful for representing one's opponents as the bad guys, maps can also advertise oneself as the good guy. Accompanying a story headlines "Repatriation: Background for Peace," [the map above] shows Germany as the Peacemaker quietly reducing ethnic friction in the Baltic states by evacuating 80,000 to 120,000 Germans. As *Facts in Review* proudly observes, "Germany is not afraid to correct mistakes of geography and history." The map's pictorial symbols dramatize the repatriation by showing proud, brave, obedient Germans clutching their suitcases and lining up to board ships sent to "lead [these] lost Germans back home to the Reich." To the east in stark, depressing black looms the Soviet Union, and to the south in pure, hopeful white lies Germany.²

BASIC ELEMENTS OF A MAP

—What makes a map a map?

The three basic elements of a map are scale, projection and symbols.

Scale

It is the degree of reduction and the ratio between a distance on the map and the corresponding distance on the Earth. In other words, the scale tells us how much smaller the map is than the reality it represents.

“What a useful thing a pocket-map is!” I remarked.

“That’s another thing we’ve learned from *your* Nation,” said Mein Herr, “map-making. But we’ve carried it much further than *you*. What do you consider the *largest* map that would be really useful?”

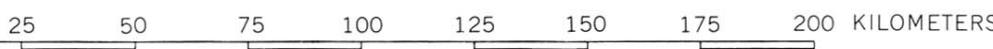
“About six inches to the mile.”

“Only *six inches!*” exclaimed Mein Herr. “We very soon got to six yards to the mile. Then we tried a hundred yards to the mile. And then came the grandest idea of all! We actually made a map of the country, on the scale of *a mile to the mile!*”

“Have you used it much?” I enquired.

“It has never been spread out, yet,” said Mein Herr: “the farmers objected: they said it would cover the whole country, and shut out the sunlight! So we now use the country itself, as its own map, and I assure you it does nearly as well.”

From Lewis Carroll’s *Sylvie and Bruno Concluded* (1893)



Map projections

Projections are the methods used to show a three-dimensional object (the planet) in a two-dimensional plane (the map). This translation from three to two dimensions generates distortion, and the numerous projection methods explore differ in the way they manage distortion. The distortion can be of angles, distance, direction, scale, and area. Some projections minimize distortions in some of these properties at the expense of maximizing errors in others, but there is no projection that carries no distortion. Some projections attempt to only moderately distort all of these properties.

Which projection should a graphic designer use? Well, there is no “absolute best” projection. It depends on the goals of the piece.

Each projection conveys information in a different way. Therefore, it is crucial for graphic designers to know and understand each kind of projection—and which distortion it causes—in order to select the most appropriate one for each of their pieces.

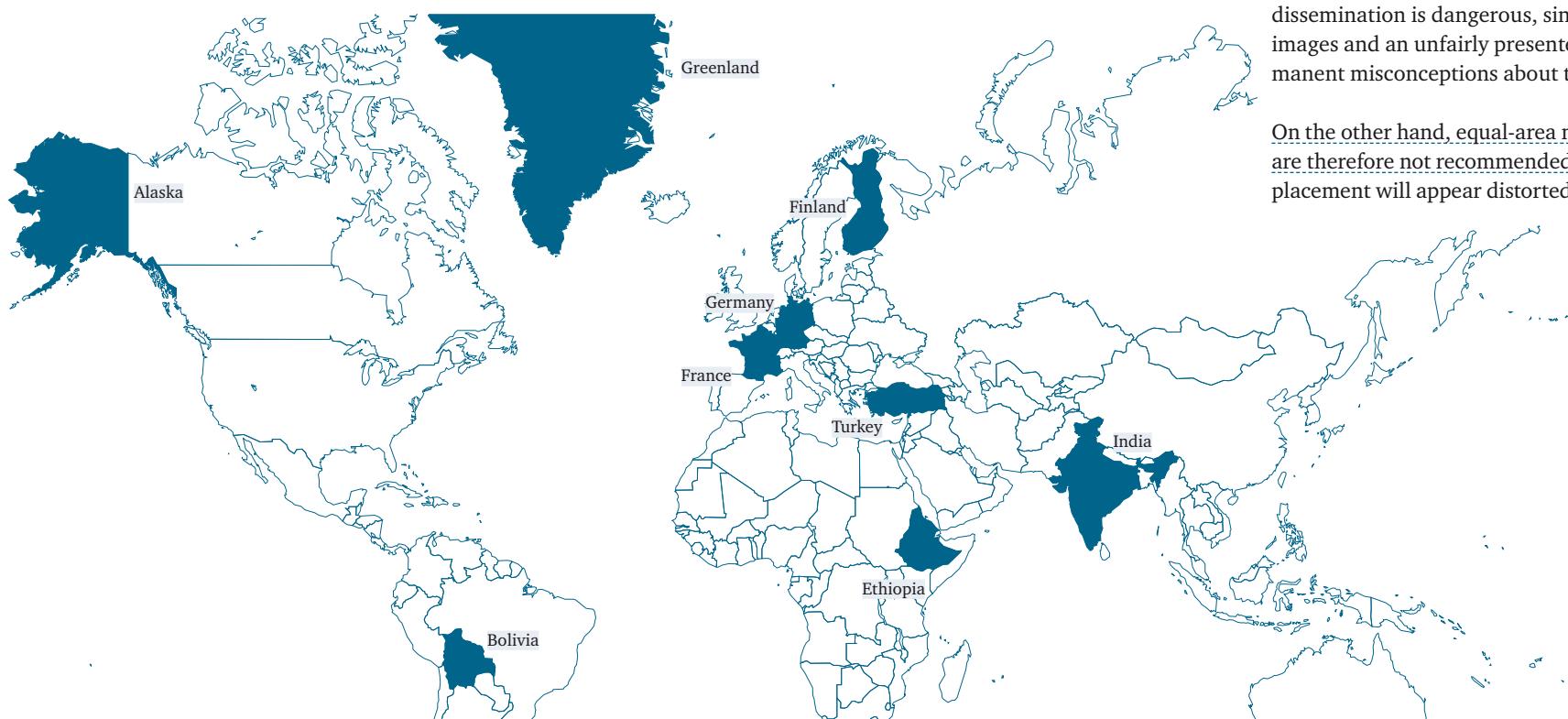
The *equivalent* or *equal-area projections* preserve area relations,—that is, all mapped areas have the same proportional relationship to the areas on the globe that they represent—while distorting distances and angles. This kind of projection is suited for displaying topics related to area, such as data distribution.

The Lambert azimuthal equal-area projection



Conformal projections have fidelity of shape, that is, the angle between any two lines on the sphere is the same between their projected counterparts. Meridians and parallels cross at right angles (90°). They are important for mapping operations such as topography and navigation.

One of the most famous conformal projections was presented in 1569 by Flemish cartographer Gerhard Kremer, who became famous with the Latinized name Gerardus Mercator. In navigation, a rhumb line (or loxodrome) is a line crossing all meridians of longitude at the same angle, that is, a path derived from a defined initial bearing. Upon taking an initial bearing, one proceeds along the same bearing, without changing the direction as measured relative to true north. In Mercator's cylindrical projection, a rhumb line appears as a straight line, which made this the standard map projection for nautical purposes.¹



This projection uses the Equator as starting point (the line where the cylinder “touches” the globe), so surface stretching increases continuously toward the poles. That brings severe area distortion. For instance, Greenland and Africa seem similar in size in a Mercator's projection map. The African continent, however, has close to $30,000,000 \text{ km}^2$ and Greenland has $2,166,086 \text{ km}^2$, making Africa over 13 times larger.

Finland ($338,145 \text{ km}^2$) looks bigger than Turkey ($783,562 \text{ km}^2$)
The U.S. state of Alaska ($1,530,000 \text{ km}^2$) looks bigger than India ($3,287,263 \text{ km}^2$)
Germany ($357,022 \text{ km}^2$) looks similar in size to Ethiopia ($1,104,300 \text{ km}^2$)
France ($643,427 \text{ km}^2$) looks similar in size to Bolivia ($1,098,581 \text{ km}^2$)²

Because of this area distortion, conformal maps are not to be applied in statistical mapping, where comparisons based on size are used. An effective tool if used in the appropriate context, the Mercator projection has been often used for wall maps, general illustration, school textbooks, newspapers and TV news shows. This dissemination is dangerous, since maps produce long-lasting visual images and an unfairly presented map may build strong and permanent misconceptions about the world.

On the other hand, equal-area maps deform angles and shapes and are therefore not recommended for showing routes. Any space displacement will appear distorted then, providing wrong information.

¹ From Wikipedia
² Source: The CIA World Factbook [<https://www.cia.gov/library/publications/the-world-factbook/index.html>]

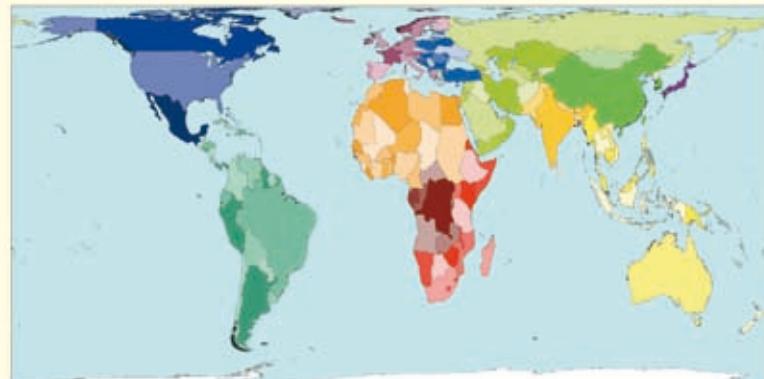
Go online

The United States Geological Survey keeps a website that helps people decide which map projection to use: the [Decision Support System for Map Projections of Small Scale Data](#). The user selects the type of area to map (global, continental, regional), what to preserve (shape or area) and the type of data (vector, raster, continuous, thematic), and the system presents the most optimal options. [<http://mcmcweb.er.usgs.gov/DSS/>]

A team of researchers from The University of Sheffield created a method for creating equal-area cartograms and applied it on the website [Worldmapper](#) [<http://www.sasi.group.shef.ac.uk/worldmapper/>]. These cartograms re-size each country on the map according to the variable being mapped.

The Worldmapper map for land area is an equal-area map, that is, it shows area correctly while it distorts other features such as angles and shapes. The total population map distorts areas according to the population of the countries. Heavy populated countries like India and Indonesia gain importance, while countries which are big in area but not heavily populated, like Russia and Australia, look smaller.

Land Area



Technical notes

- Principal data source: United Nations Environment Programme, 2001
- Land area: Calculated and sourced by major rivers, lakes and the sea
- Population: Data used is from 2002
- See website for further information

MOST AND LEAST LAND					
Rank	Territory	Value	Rank	Territory	Value
1	Russia	18.1	191	Nauru	0.154
2	Western Sahara	9.7	192	Maldives	0.143
3	Mongolia	6.0	193	Bahrain	0.101
4	Australia	5.9	194	Maldives	0.100
5	Australia	3.9	195	Bangladesh	0.091
6	Suriname	2.9	196	Malta	0.080
7	Mauritania	3.7	197	Holy See	0.048
8	Venezuela	3.1	198	Singapore	0.016
9	St Vincent & The Grenadines	3.0	199	Hong Kong (China)	0.015
10	Bolivia	3.0	200	Monaco	0.006

hectares per person

Produced by the SASI group (Sheffield) and Mark Newman (Michigan)

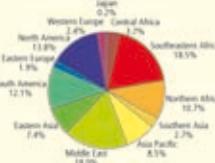
The land area of each territory is shown here.

The total land area of these 200 territories is 13056 million hectares. Divided up equally that would be 2.1 hectares for each person. A hectare is 100 metres by 100 metres.

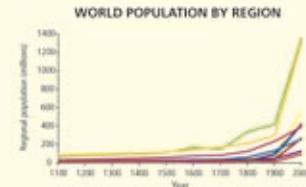
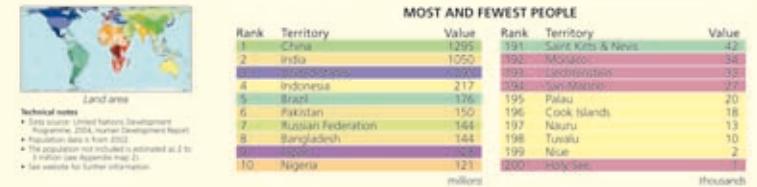
However, population is not evenly spread: Australia's land area is 21 times bigger than Japan's, but Japan's population is more than six times bigger than Australia's.

Each territory's size on the map is drawn according to its land area.

WORLD LAND DISTRIBUTION



Total Population



"Secure access to land remains essential for diverse land-based livelihoods and is a precondition for sustainable agriculture, economic growth and poverty reduction"

Oxfam, 2006

Map 001

"Out of every 100 persons added to the population in the coming decade, 97 will live in developing countries."

Hania Zlotnik, 2005

www.worldmapper.org © Copyright 2006 SASI Group (University of Sheffield) and Mark Newman (University of Michigan)

Why does it matter that we know how big Africa is?

Since the distortion makes the Northern countries look bigger and the less developed countries, closer to the Equator, look smaller than they really are, the Mercator projection has been accused to reinforce the image of a powerful northern hemisphere against a underdeveloped “third world”.

In the early 1970's, Arno Peters, German historian and journalist, published a cylindrical equal area projection, similar to the Gall Projection—developed in 1855 by James Gall. Peters claimed this projection was the right alternative to Mercator's “Eurocentric” projection. Since it was equal-area, Peters' projection should be seen as egalitarian. He stated, “*In our epoch, relatively young nations of the world have cast off the colonial dependencies and now fight for equal rights. It seems important to me that developed nations are no longer at the center of the world, but are plotted according to their true size.*”¹

Peters, as an accomplished journalist, successfully generated publicity around his projection, and produced an ongoing debate which was known as “Map Wars”. The press, the United Nations, the World Council of Churches, among other institutes, embraced the Peters projection as a tool for “Third World” ascension.

The Gall-Peters projection



However, several equal-area projections already existed then, with much less overall shape distortion. Peters' projection shows Europe and the border between the United States and Canada with lower shape distortion, because they are near the standard northern parallel, while most of Africa, South America and Southeast Asia—the supposedly benefited areas—are shown with the highest degree of distortion.

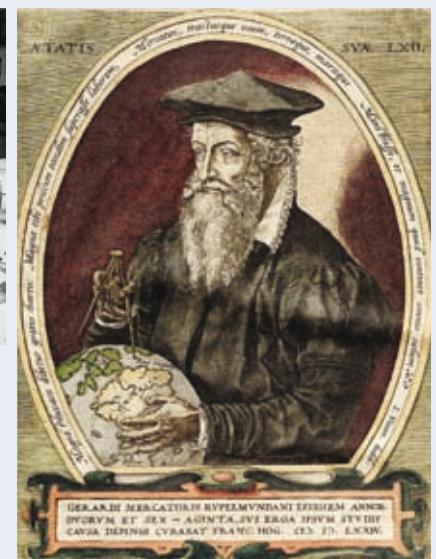
In addition, the Mercator projection should not have been the target, since it was designed as a navigation tool and never intended for statistic showing. The problem is that it is used as a standard world map in textbooks, shaping people's idea of how the world looks like. Currently, it is the projection used on Google Maps, the leading mapping tool in the web. When questioned about this selection, Google responded that “*Maps uses Mercator because it preserves angles. The first launch of Maps actually did not use Mercator, and streets in high latitude places like Stockholm did not meet at right angles on the map the way they do in reality. While this distorts a ‘zoomed-out view’ of the map, it allows close-ups (street level) to appear more like reality. The majority of our users are looking down at the street level for businesses, directions, etc... So we're sticking with this projection for now.*”²

¹ (Monmonier, Rhumb Lines and Map Wars: A Social History of the Mercator Projection. 2004)

² Why does Google maps use the inaccurate, ancient and distorted Mercator Projection? Forum debate at <http://www.google.com/support/forum/p/maps/thread?tid=075eb10962eooccs&hl=en>



Arno Peters and Gerardus Mercator at work



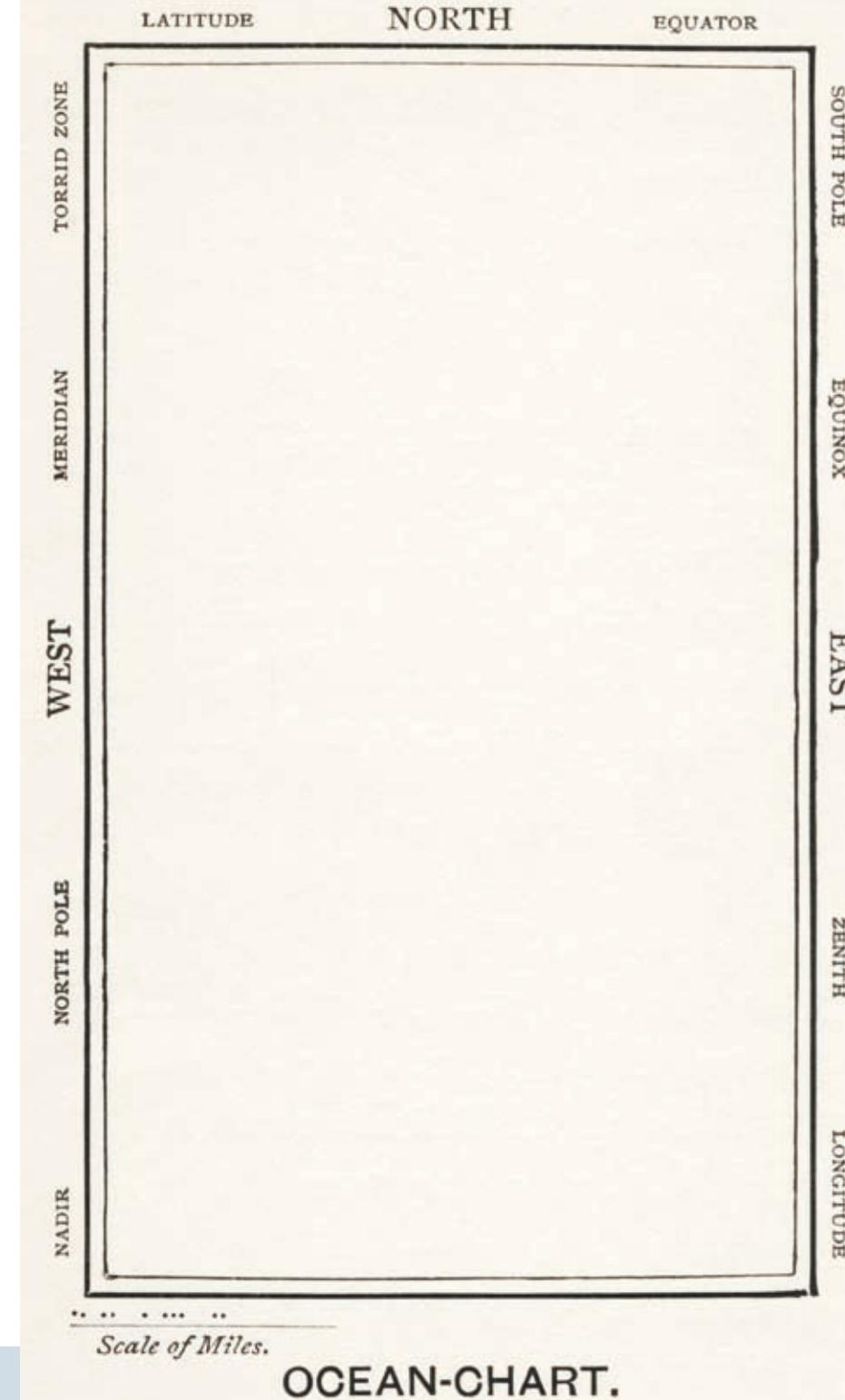
“He had bought a large map representing the sea,
Without the least vestige of land:
And the crew were much pleased when they found it to be
A map they could all understand.

“What’s the good of Mercator’s North Poles and Equators,
Tropics, Zones, and Meridian Lines?”
So the Bellman would cry: and the crew would reply
“They are merely conventional signs!

“Other maps are such shapes, with their islands and capes!
But we’ve got our brave Captain to thank:
(So the crew would protest) “that he’s bought us the best --
A perfect and absolute blank!”

From Lewis Carroll’s *The Hunting of the Snark: an Agony, in Eight Fits*

Fourth of Henry Holiday’s original illustrations to *The Hunting of the Snark* by Lewis Carroll.

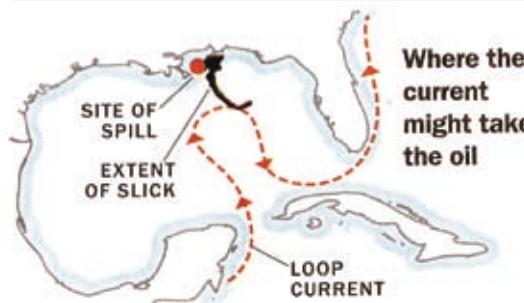


Symbols

They complement scale and projection on a map, by making information visible through graphic elements. Patterns, colors and pictograms are examples of symbols used in cartography.

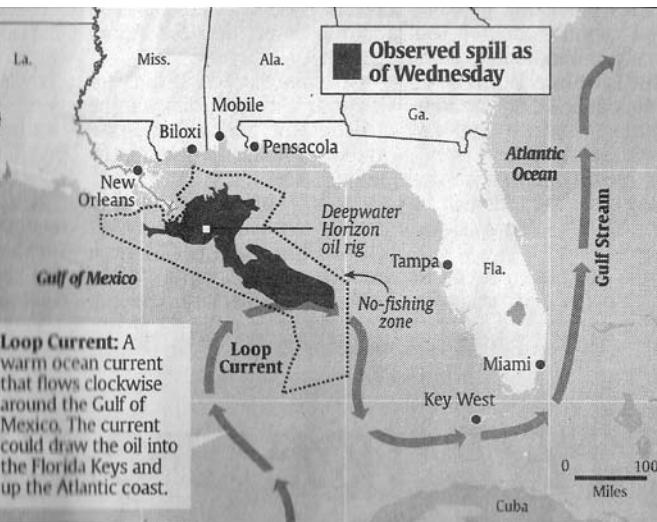
The variables described by Jacques Bertin for information graphics also apply to cartographic symbols. Shape, texture, and hue are effective in showing qualitative differences; size is appropriate for showing variation in quantity; value is suited to displaying differences in rate or intensity; and symbols varying in orientation are effective in representing directional occurrences.

Examples of symbols varying in orientation in order to show directional occurrences. Both maps are about the oil spill in Gulf of Mexico—the top one from *Time* magazine and the bottom one from *USA Today*.



USA Today
International
Edition, May 21-
23, 2010

Time, May 31, 2010

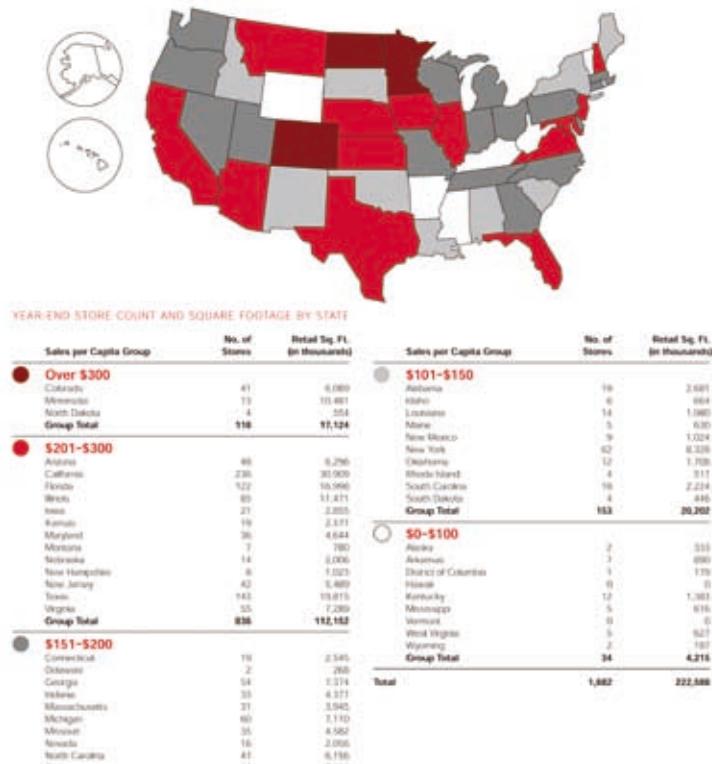


Loop Current: A warm ocean current that flows clockwise around the Gulf of Mexico. The current could draw the oil into the Florida Keys and up the Atlantic coast.

When one or more variables are used to portray a least suited kind of data, the efficiency of the map is compromised. It happens, for instance, when hue—instead of value—is used to represent changes in intensity. Although contrasting hues can be visually dramatic, they are not appropriate for an ordered series of values. Viewers cannot easily and consistently organize colors into an ordered sequence, which can be promptly done with evenly spaced tones of gray. The viewers are used to the notion that black means more and white means less. Since hues have no logical ordering in viewers' minds, hue differences usually fail at displaying differences in rate, percentages and other intensity measures.

The Target 2008 annual report shows a choropleth map that uses a mix of gray and red tones to show sales per capita in each state of the United States. From US\$0 to US\$200, the color varies in gray tones. From US\$201 to over US\$300, however, the map uses two hues of red. Although it is an overall gradation, the change in the color system suggests a change in categories, which is not explicit in the legend.

2008 Sales Per Capita



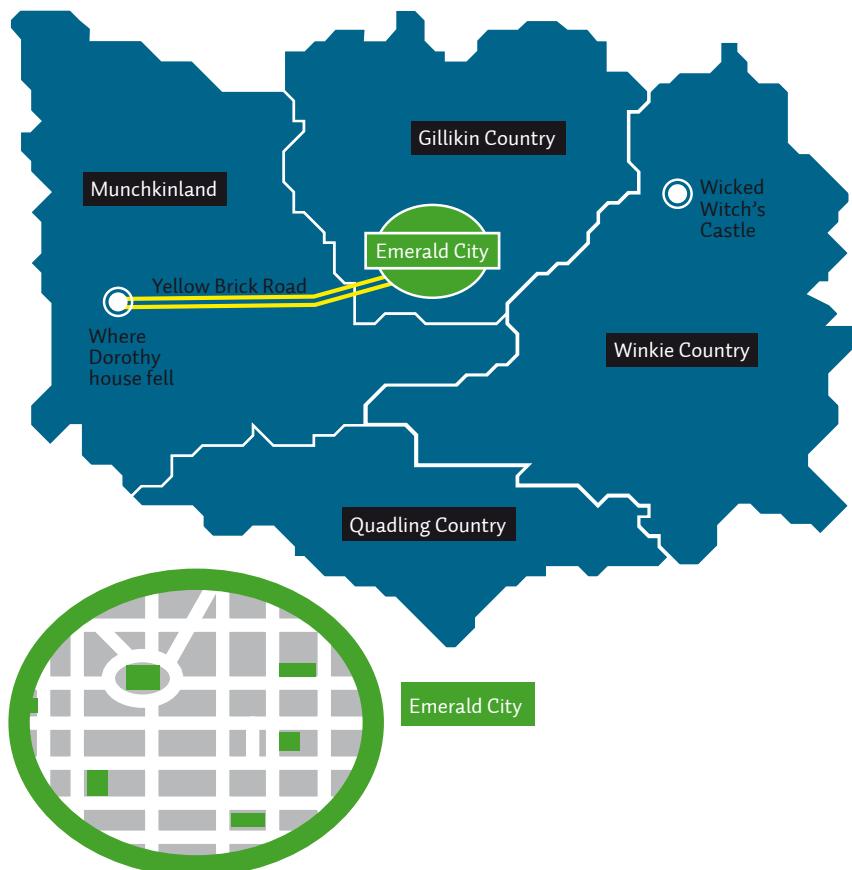
EXAMPLES

—How to change perception?

By changing the **size and positioning of elements**, it is possible to alter the visual hierarchy of a map. The bigger the element, the more prominent it becomes.

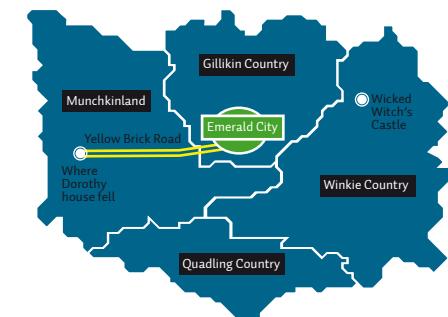


The Land of Oz



This example shows a map of the Land of Oz (from the book *The Wizard of Oz*) and its capital, Emerald City. The first page has a map of the Land of Oz, showing Emerald City as an *inset map*, that is, showing a larger detailed area of a portion of the map's area. The second page has a map of Emerald City, with a small map of Oz working as a *locator map*, that is, showing the exact location of the city. The same elements, with different size and position arrangement, can work for different goals.

Emerald City





map of wonderland



In the same way as other information graphics, maps also take part in **building the image** of the publisher/author. The chosen projection, colors, typography, and other graphic elements can make a map look serious, fun, modern, or traditional. The credibility of a map depends, among other factors, on its overall image. A map that looks scientific or academical may seem more accurate than a map that looks flamboyant or sloppy.

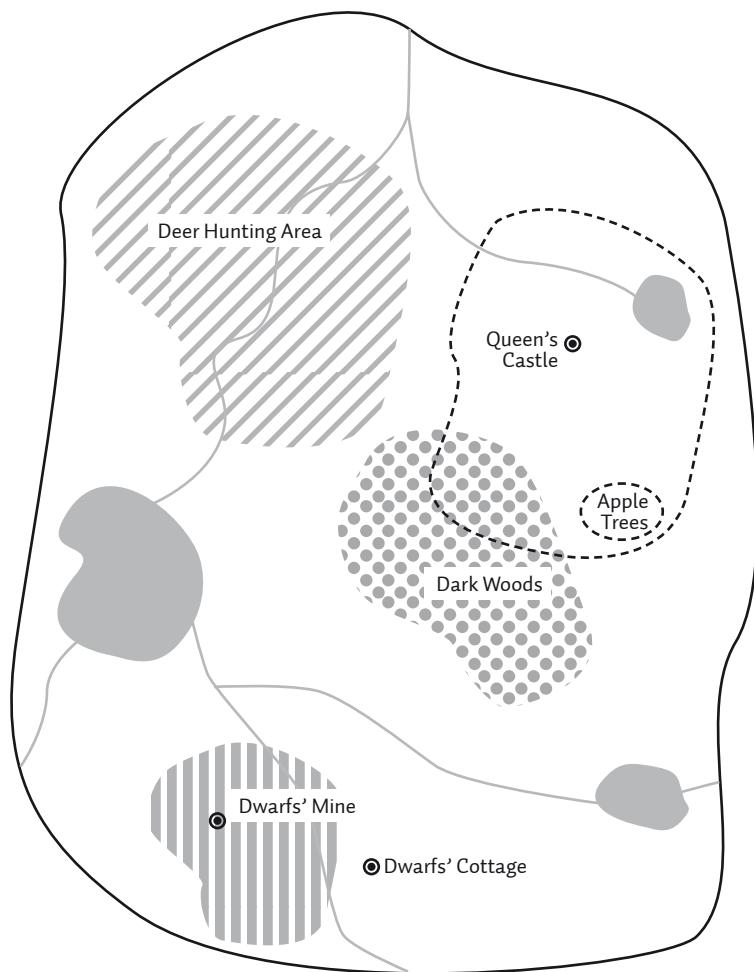
The example from the previous page shows two maps of Wonderland, from the book *Alice in Wonderland*. On previous page, the map uses a schematic configuration and flat color blocks, which gives it a technical character.

On this page, the map uses texture, illustrations and a script typeface, which gives it a storybook-like quality. While the first map looks like an accurate tool for orientation, this map looks like it is part of a narrative, even though they have basically the same spatial information.





map of enchanted forest

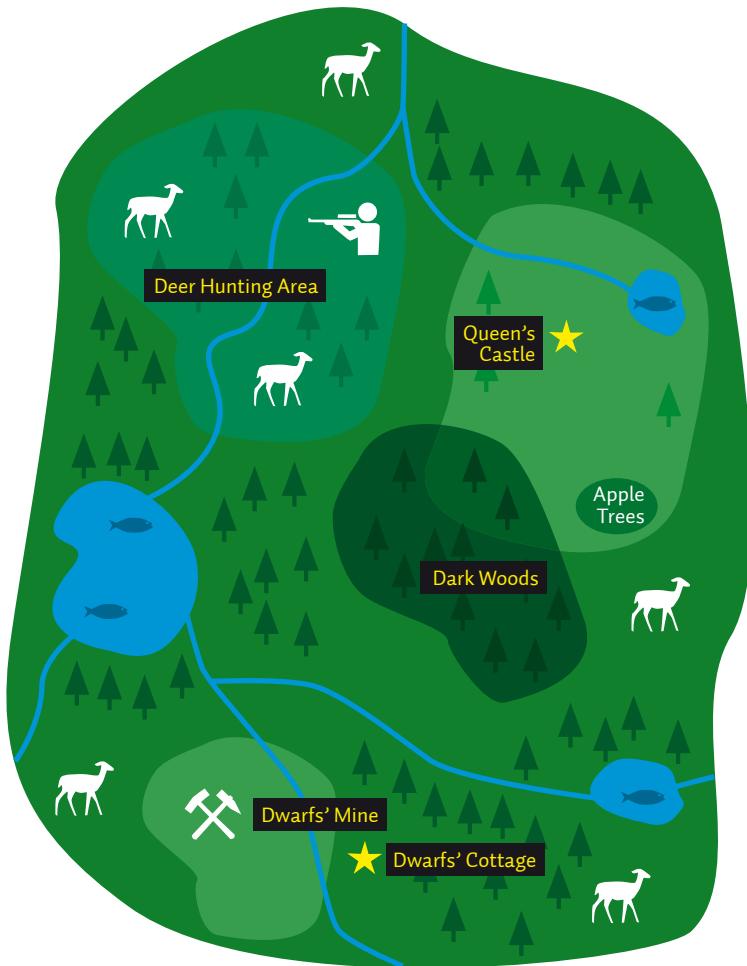


Color associations play an important role in the character of a map. The use of color can attract attention to an otherwise uninteresting map. This example shows three versions of a map for the Enchanted Forest, home of Snow White. The first map is black and white, using patterns to differentiate areas, while the second map uses green, blue and yellow.

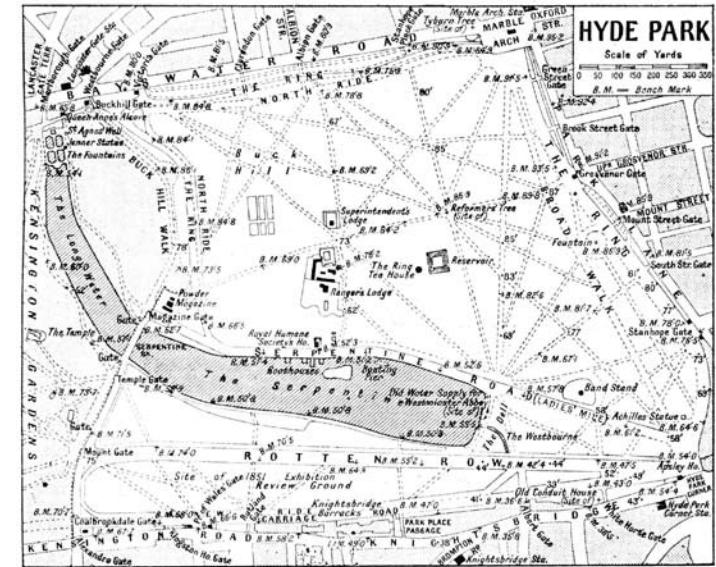
Greens are usually associated with healthy, pleasant areas, while ochre tones may remind people of desert areas. The colors can make an area seem more inviting.

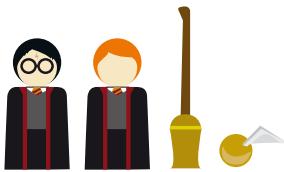


The third version of the enchanted forest map includes not only symbols for deer hunting area, fishing lakes and mining, but also trees as decorative elements. The use of symbols increases visual interest, making this version more inviting and, therefore, more appropriate for a promotion tool, like a visitor's brochure, for instance. A map can not only show where things are located, but also make people want to go there.



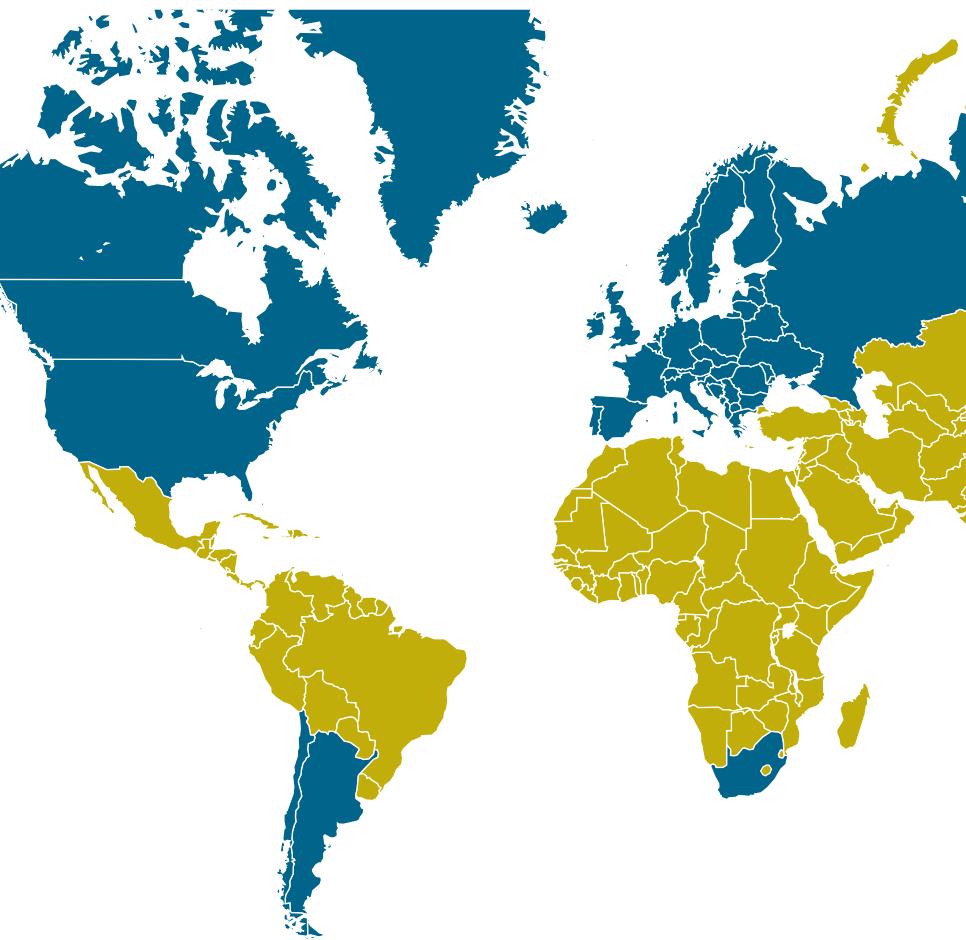
The maps below both show Hyde Park, in London. The top map is from 1922 (published in *The Probert Encyclopaedia*) and the one in the bottom is currently used for promotion by The Royal Parks. Which one would attract more visitors?





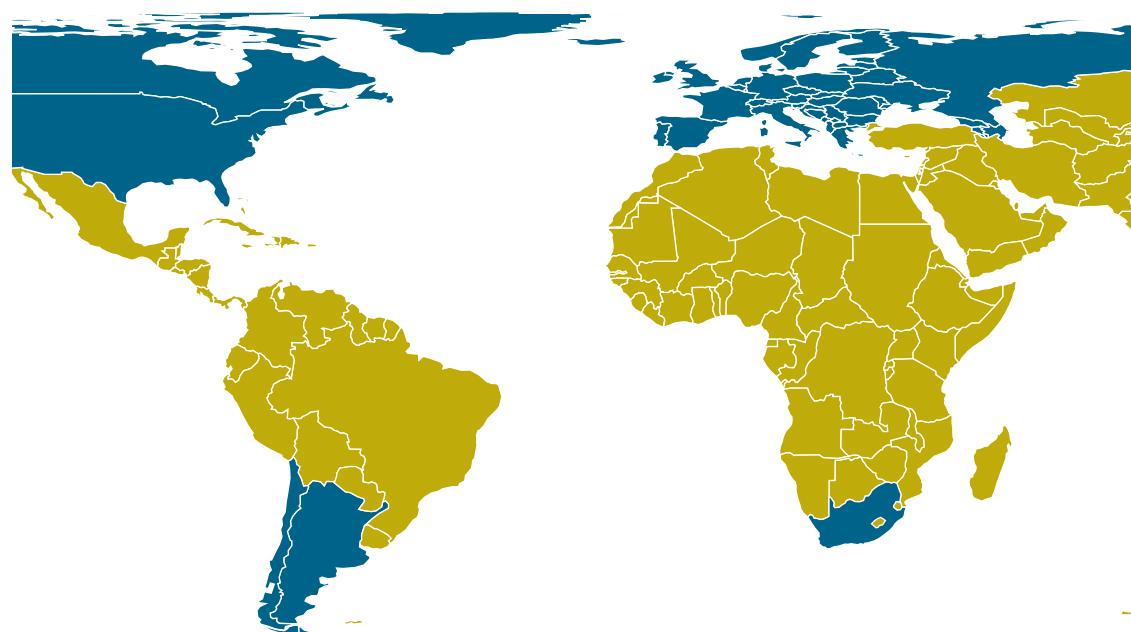
countries with official quidditch tournaments

- █ with official quidditch tournaments
- █ no official quidditch tournaments



When a map displays statistics, **size does matter**. The same data will have different impact when presented in different map projections. As discussed previously, conformal maps are not appropriate for statistical displays, since there is area distortion.

This example shows the same information using two different projections. The maps display which countries have an official tournament of quidditch, the wizard sport introduced in the series of *Harry Potter* books. The map on the left uses the Mercator projection, conformal, while on the right there is a cylindrical equal-area projection. The difference in size makes the blue (with quidditch) countries have more weight in the left map, and the ochre (without quidditch) countries have more weight on the right.



RHETORIC IN TYPOGRAPHY

“Type is saying things to us all the time. Typefaces express a mood and atmosphere. They give words a certain coloring.”¹

RICK POYNOR

1, 2 From the documentary *Helvetica*, directed by Gary Hustwit in 2007

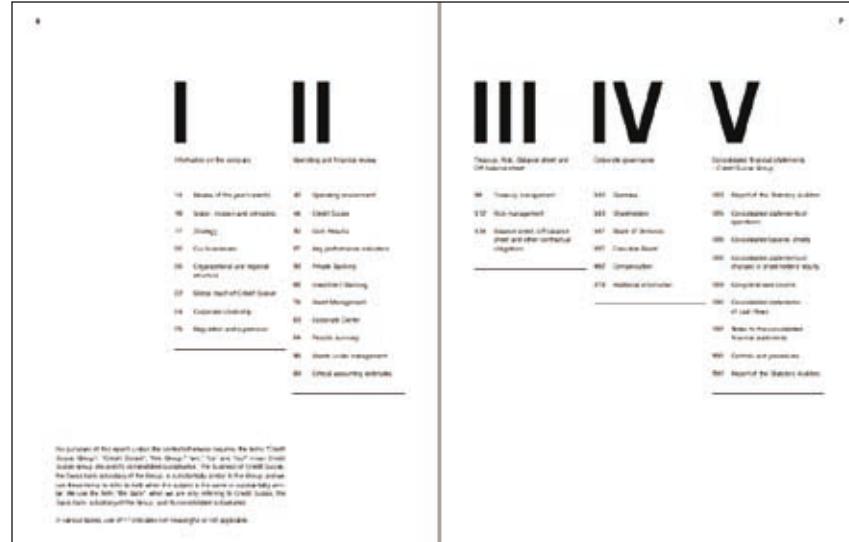
The selection of typefaces for a project traditionally takes into account factors such as legibility and readability. Furthermore, it is necessary to consider the purpose of the piece, the target audience and the image that the author/publisher wants to build in the mind of the viewers. In other words, the graphic designer should consider what is going to be read, why it will be read, who will read it, and how it should be perceived.

Typography is a tool for creating emphasis and hierarchy. It creates a navigation map for the page—and therefore for the content. Typographical characteristics in the words give hints to the viewers about their purpose and importance. Side notes, headlines, table of contents are recognized as such through typography. Words in bold face attract the viewer’s attention. Big letters are considered more important than fine print. Emphasis is placed on words through the use of italics, changing the perception of the content.

“All of us, I would suggest, are prompted in subliminal ways. Maybe the feeling you have when you see a particular typographic choice is used on a piece of packaging is just “I like the look of that”, “that feels good”, “that’s my kind of product”. But that’s the type casting its secret spell.”²

RICK POYNOR

Here are two examples of how typography takes part in building the image of a publication. The example below is from the Credit Suisse 2008 annual report, and on the other page there is a spread from the Harley Davidson 2009 annual report. The Credit Suisse typography follows the clean and minimalistic Swiss style, while the Harley Davidson typography embodies the rough image of the brand.



OVER OUR HANDLEBARS, WE CAN SEE THE WHOLE WORLD.



© HARLEY-DAVIDSON, INC. 2009-HD-10717

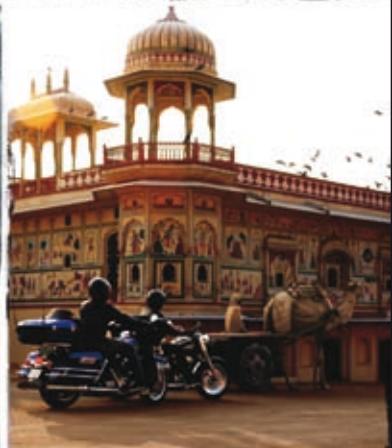
OVER OUR HANDLEBARS, WE CAN SEE THE WHOLE WORLD.



Harley-Davidson® customers ride the road to success. Our brand has reached global markets and is now becoming the symbol of a major place to do business. Our international sales and market share growth is strong with a solid base of motorcycle sales in more than 70 countries and 100 countries. By last year, Harley-Davidson® motorcycle sales increased by 10 percent. Harley-Davidson motorcycle sales exceed 30 percent of our total retail unit sales.

We take seriously market research. We're always looking for a place where our products can be used to further develop our global family of places like India, where we are taking a privacy role in driving fast-growing leisure riding market. We've studied the market in depth, and the growing demand for motorcycle sales is greater than we ever imagined. We are looking for opportunities in India, an emerging market, our biggest market. Our international sales, distribution, service, marketing and small business, and more all contribute to our success.

India is driving us to move into international motorcycle markets. Today, we're in a major place to do business. Our international sales and market share growth is strong with a solid base of motorcycle sales in more than 70 countries and 100 countries. By last year, Harley-Davidson motorcycle sales exceed 30 percent of our total retail unit sales.



The choice of the typeface itself is also a rhetorical decision. Different alphabets convey different emotions, create different images, and evoke different memories, which can be associated with national, technological, religious, geographical and even political issues, among others.

InStyle, USA Edition, May 2010, p. 111, 156.



The selection of a typeface for a project should never be arbitrary. It requires reflection about the viewer-receptor and about the ideas to be communicated. **Changing the typeface might change the whole perception of the content.** The same text designed with different typefaces can produce different feelings.

These pages come from the same edition of *InStyle* magazine. On the article about fashion in the Academy Awards, the headline is set in a serif typeface, evoking the classical and elegant style of the dresses depicted on the page. The article about graphic t-shirts, on the other hand, uses a sans serif typeface, matching the modern style of the piece.

your Look | **THREE WAYS**

Graphic T

Whether you're feeling like a rock chick or a power player, this classic fits to a tee

A photograph featuring three women modeling graphic t-shirts. The woman on the left wears a red t-shirt with a large white 'M' and the words 'ATOMIC M.U.' over 'NEW YORK CITY'. She is paired with a light grey cardigan, denim shorts, and sandals. The woman in the center wears a black blazer over a red t-shirt with a similar graphic, paired with a white pencil skirt and a tan handbag. The woman on the right wears a red t-shirt with a graphic of a person and the words 'KIMBERLY' and 'EXTRA CLASS'. She is paired with black leggings and strappy sandals. A red speech bubble above her contains the text: 'Cotton T. by Tommy Hilfiger, NYC 212-512-1824.'

Wear your casual style and confidence with a long-sleeved graphic t-shirt. **Blazer:** *Tommy Hilfiger, NYC*

CARDIGAN: *LuLu's, LuLu's.com*. **SHORTS:** *Dress Barn, DressBarn.com*. **SHIRT:** *LuLu's, LuLu's.com*. **SKIRT:** *LuLu's, LuLu's.com*. **BAG:** *LuLu's, LuLu's.com*.

SANDALS: *LuLu's, LuLu's.com*. **BRACELET:** *LuLu's, LuLu's.com*.

A classic, preppy look with a twist of edge created by a graphic t-shirt. **Blazer:** *Tommy Hilfiger, NYC*

BLAZER: *LuLu's, LuLu's.com*. **SKIRT:** *Karen Scott, KarenScott.com*. **TOP:** *LuLu's, LuLu's.com*. **SHIRT:** *LuLu's, LuLu's.com*. **SKIRT:** *Karen Scott, KarenScott.com*. **TOP:** *LuLu's, LuLu's.com*. **SHIRT:** *LuLu's, LuLu's.com*. **SKIRT:** *Karen Scott, KarenScott.com*. **TOP:** *LuLu's, LuLu's.com*.

WATCH: *LuLu's, LuLu's.com*. **TOTE:** *LuLu's, LuLu's.com*. **CLUTCH:** *LuLu's, LuLu's.com*.

TOP: *LuLu's, LuLu's.com*. **SHIRT:** *LuLu's, LuLu's.com*. **SKIRT:** *LuLu's, LuLu's.com*. **TOP:** *LuLu's, LuLu's.com*. **SHIRT:** *LuLu's, LuLu's.com*. **SKIRT:** *LuLu's, LuLu's.com*.

Go for glam with contrasting black and silver tones. **Blazer:** *Michael Kors, MichaelKors.com*. **TOP:** *LuLu's, LuLu's.com*. **SKIRT:** *LuLu's, LuLu's.com*. **SHIRT:** *LuLu's, LuLu's.com*. **TOP:** *LuLu's, LuLu's.com*. **SKIRT:** *LuLu's, LuLu's.com*.

BLAZER: *Michael Kors, MichaelKors.com*. **TOP:** *LuLu's, LuLu's.com*. **SKIRT:** *LuLu's, LuLu's.com*. **SHIRT:** *LuLu's, LuLu's.com*. **TOP:** *LuLu's, LuLu's.com*. **SKIRT:** *LuLu's, LuLu's.com*.

WATCH: *LuLu's, LuLu's.com*. **TOTE:** *LuLu's, LuLu's.com*. **CLUTCH:** *LuLu's, LuLu's.com*.

TOP: *LuLu's, LuLu's.com*. **SHIRT:** *LuLu's, LuLu's.com*. **SKIRT:** *LuLu's, LuLu's.com*. **TOP:** *LuLu's, LuLu's.com*. **SHIRT:** *LuLu's, LuLu's.com*. **SKIRT:** *LuLu's, LuLu's.com*.

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www.WWD.com/june2010

"The way something is presented will define the way you react to that. So you can take the same message and present it in three different typefaces. The response to that, the immediate emotional response, will be different and the choice of typeface is the prime weapon, if you want, in that communication."¹

NEVILLE BRODY

Aiming at neutrality is also a rhetorical decision, since the typography is evoking the "image of neutrality". Helvetica, for instance, is a typeface seen as neutral. Maybe because of its ubiquitousness, Helvetica is often chosen when the goal of the piece is to appear neutral.

"Governments and corporations love Helvetica because on one hand it makes them seem neutral and efficient. But, also, the smoothness of the letters makes them seem almost human. That is a quality they all want to convey (...). By using Helvetica, they can come off seeming more accessible, transparent, and accountable. (...) They don't have to be accessible, or accountable, or transparent, but they can look that way."²

LESLIE SAVAN, Media writer

¹ (Hustwit 2007)

² (Hustwit 2007)

AaBbCcDd

HELVETICA

Helvetica, a typeface that embodies the Swiss or International style of design, has a big influence in graphic design since its creation in 1957. Glorified by some, and despised by others, Helvetica is one of the biggest standards in typography.

In the year after its release, Helvetica was a huge hit, being used in corporate identity of companies such as American Airlines. In the mid-70s and 80s, Helvetica was seen by some as boring and lacking personality.

From December 2009 to February 2010, the Disseny Hub Barcelona hosted an exhibition about Helvetica and its influence, and it featured some quotes from experts about the typeface:

"Helvetica communicates with the most legitimate, beautiful, and universal form." Makoto Saito

Makoto Saito is a Japanese graphic designer, born in 1952.

"Helvetica is the jeans, and Univers the dinner jacket. Helvetica is here to stay." Adrian Frutiger

Adrian Frutiger is a well-known Swiss type designer and author, born in 1928. His creations include Frutiger and Univers.

"Helvetica – the epitome of ugliness." Wolfgang Weingart

Wolfgang Weingart is a German graphic designer and typographer, born in 1942.

"When I studied graphic design between 1967 and 1972, Helvetica was omnipresent. My goal was not to use it." Niklaus Troxler

Niklaus Troxler is a graphic designer and typographer, born in 1947 in Switzerland.

"If you have no intuitive sense of design, then call yourself an "information architect" and only use Helvetica." David Carson

David Carson is an American graphic designer, born in 1952.

helvetica

One rhetorical aspect of typefaces is the experience people have with them. That is, what memories the typeface brings to viewers. The typography based on the capitol engraved in the Trajan Column, for instance, send viewers' minds to classical antiquity and the Roman Empire; while typefaces with Art Nouveau ornaments and lines remind people of the end of the 19th Century and beginning of the 20th Century.

Richard Hendel, in his book *On Book Design*, reproduces a testimony from Robert Bringhurst about connotation in typography:

"When I read a manuscript I start immediately to look in the back of my mind for typographic allusions or relations. I ask myself automatically, what are the types that might do justice to this book? Is there a type that comes from the same time (seventeenth-century type for a seventeenth-century book, etc.), or a type from the same place (French type for a French book, etc.), or one that embodies a similar intellectual attitude (neoclassical type for a book about neoclassicism; avant-garde type for a book about avant-garde or one by an avant-garde artist, etc.) (...) Most typographic allusions are, of course, all but invisible to the average reader. But I choose to believe that people are sensitive even to perceptions and sensations of which they aren't aware. So I choose to believe that these allusions matter, even to readers who don't see them."¹

Like automobiles, clothes, magazines, and posters, typefaces are a product of their era; they speak of the spirit of their time. Futura, for example, with its geometric straightforwardness, is a symbol for progress and logic of early 20th century modernism.

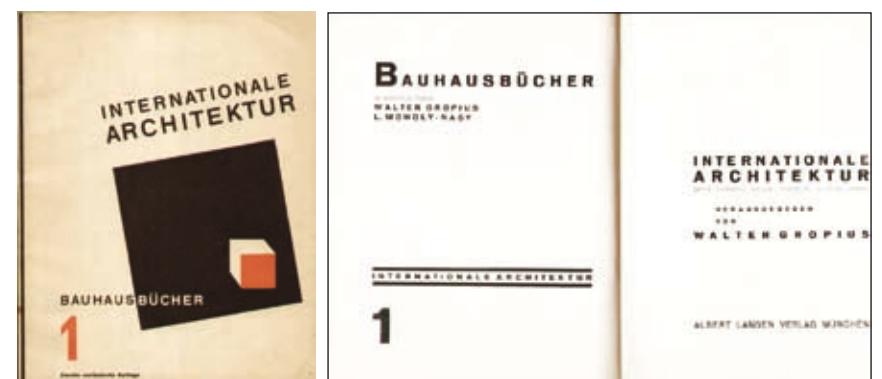
"Why you grab a certain typeface for a certain job has a different meaning than we grabbed a typeface in the 50s for a certain job. You are always a child of your time and you cannot step out of that"²

WIN CROWVEL

Douglas McMurtrie (1888-1944), typeface designer, wrote a text in 1929 called "The Philosophy of Modernism in Typography", where he laid a philosophical basis for modernist typography:

"The primary function of typography is to convey a message to the comprehension of the readers to whom it is addressed. Some of these readers may not be particularly interested in the message; hence it is necessary to set it out in type in such manner that it may be read with the greatest possible ease and speed. Clarity is the essential feature of modern typography. Any form which does not first express the function of legibility is not in the true spirit of modern typography, no matter how striking or "modernistic" it may be otherwise. (...) The arrangement must therefore be held fluid, so as to permit indication of the comparative importance of portions of the copy by variations in type size or weight, and the accentuation of individual words or sentences by any sound methods of display. As all art of any vitality is a reflection of life, the typography which is strictly representative of its period is expressive of the life of that period. Perhaps the most typical characteristic of present day living is the quick tempo at which it moves. The tempo of our typography should be in keeping. It should be dynamic rather than static. Its balance should be that of motion rather than that of rest. The balanced compositions suited to the leisurely contemplation of an earlier generation must give place to arrangements in which the sense of movement is inescapable. For we of the present age must, so to speak, read as we run."³

Book designed by Lazlo Moholy-Nagy in 1925 for the Bauhausbücher series.



¹ (Hendel 1998) p.13 - (Letter to author – Nov. 1995)

² (Hustwit 2007)

³ (McMurtrie 1999) p. 40-1

Blackletter and Nazis

The blackletter typefaces are a special case where time, geographical, and political issues are involved. Chronologically, they remind people of the Middle Ages; geographically, they refer to the center of Europe, Germany in particular; and politically they might be seen as the Nazi typeface. Steven Heller, in his book *Design Literacy: Understanding Graphic Design*, comments on the history and concepts attached to typeface Fraktur:

"Lettering is an active and vitally needful civilizing factor and must from henceforth play a much greater part in our life... It will help to vitalize individual capacities of the whole of our future civilization," proclaimed a 1936 editorial titled "Writing and Lettering in the Service of the New State" in *Die Zeitgemäße Schrift*, a magazine devoted to students of lettering and calligraphy. The state was the Third Reich and the lettering was Fraktur, the traditional German blackletter that had lost favor during the Weimar Republic years when the New Typography challenged its dominance. Yet by 1933 the Nazis, who assailed modern sans serif type as "Judenlettern," brought Fraktur back with a vengeance. Such was the influence of Adolf Hitler over every aspect of German life that lettering and typography were harshly scrutinized by party ideologues. Joseph Goebbels, Nazi minister for propaganda and enlightenment, initially decreed that blackletter be returned to its rightful place representing German *Kultur*. So in the early years of the Reich, blackletter became the official *Volksschrift* (lettering of the German people). However, they who decreeth also taketh away. After registering complaints about Fraktur's illegibility (purportedly from Luftwaffe pilots who could not read tail markings), Martin

Bormann, Hitler's secretary, forbade the use of Fraktur in 1941 and ordered all official documents and schoolbooks to be reprinted. Overnight, blackletter became "Judenlettern," and roman type made a triumphant return. Although blackletter continues to evoke the spirit of Nazi authoritarianism, this summary fall from grace only adds to the historical confusion."¹

¹ (Heller 2004) p. 166



Another rhetorical aspect of a typeface is the shape of its characters: smooth, round, squared, elegant, grunge, tall, narrow, thin, contrasting thickness, and so on. These features give personality to the words.

Some might argue that humanist typefaces have more expression than other typefaces, while sans serif letters are modern and technological. The 1983 book *Typography and design for newspapers* advises that “Serif type is usually a better choice than sans serif designs. Serif type is more expressive, has more personality. Sans serifs tend to be cold and almost identical in design as an examination of several sans serifs will show.”¹

¹ (Rehe 1983) p.42

² (Hustwit 2007)



“I don’t think type should be expressive at all. I mean, I can write the word “dog” with any typeface and it doesn’t have to look like a dog. But there are people that when they write “dog”, it should bark!”²

MASSIMO VIGNELLI



EXAMPLES

—How to change perception?

Sometimes, small variations in typography can produce a big change in the perception of the message. Using upper case, italics or boldface can highlight some parts of the text while diverting attention from others.



Please return this pumpkin coach before midnight.

Please return this pumpkin coach before midnight.

Please return **this** pumpkin coach before midnight.

Please *return* this pumpkin coach before midnight.

Please return this pumpkin coach **before midnight**.

Please return this pumpkin coach **BEFORE MIDNIGHT**.

Please return this pumpkin coach **before** midnight.

In this example, changing the format of some words causes different changes in the message. Changing the word “please” to bold-face turns the command into an emotional appeal. Highlighting the word “this” gives the idea that there are other pumpkin coaches. Using italics for the word “return” might seem like an ironic hint that this word might mean something else. Highlighting the words “before midnight” makes the command seem more imperative, and that late returns will not be tolerated in any case. When these words are not only bold, but also upper case, the authoritative tone is even stronger. If the word “before” is bold, it might be taken as a suggestion of a potential negligence on the viewer’s part.

The use of **different typefaces** can create different tones for the same message. In the example below, the same sentence have many faces. Which one looks more serious? And more romantic? Which one could be on a magazine page? And on a fairy tale book?



Who is the fairest of them all?

WHO IS THE FAIREST OF THEM ALL?

Who is the fairest of them all?

Who is the fairest of them all?

Who is the fairest of them all?

Who is the fairest of them all?

Who is the fairest of them all?



Dear Mr. Potter,

We are pleased to inform you that you have been accepted at Hogwarts School of Witchcraft and Wizardry. Term begins on September 1. We await your owl by no later than July 31.

Yours sincerely,

Minerva McGonagall
Deputy Headmistress

UNIFORM

First-year students will require:

1. Three sets of plain work robes (black)
2. One plain pointed hat (black) for day wear
3. One pair of protective gloves (dragon hide or similar)
4. One winter cloak (black, with silver fastenings)

COURSE BOOKS

- *The Standard Book of Spells (Grade 1)* by Miranda Goshawk
- *A History of Magic* by Bathilda Bagshot
- *Magical Theory* by Adalbert Waffling
- *A Beginner's Guide to Transfiguration* by Emeric Switch
- *One Thousand Magical Herbs and Fungi* by Phyllida Spore
- *Magical Drafts and Potions* by Arsenius Jigger
- *Fantastic Beasts and Where to Find Them* by Newt Scamander
- *The Dark Forces: A Guide to Self-Protection* by Quentin Trimble

OTHER EQUIPMENT

- 1 wand
- 1 cauldron (pewter, standard size 2)
- 1 set glass or crystal phials
- 1 telescope
- 1 set brass scales

Students may also bring an owl OR a cat OR a toad.



Alphanumerical, spatial and graphic cues are a rhetorical device for structure and hierarchy. Bulleted lists, for instance, create a parallelism among the items, that is, they communicated that the items have the same value. At the same time, the pattern created by the list highlights the list in comparison to the other elements on the page.

This example shows two versions of the acceptance letter Harry Potter received from Hogwarts School of Witchcraft and Wizardry (from the book *Harry Potter and the Philosopher's Stone*). The second version transforms two lists into regular paragraphs, placing emphasis on the last list ("Other Equipment").

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Yours sincerely,

Minerva McGonagall
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Previously on Lost... A crash course in island history

It's 2004. **There's a plane. It crashes on an island.** There are polar bears. And a smoke monster. And angry natives called the Others. Jack is a doctor. Locke is a paraplegic who can walk now. Sawyer's a con man. Kate's a fugitive. Kate likes Jack, and also Sawyer, and also Jack again. Jin and Sun are a married Korean couple. Claire's pregnant. Charlie's a junkie. Sayid's a former Iraqi torturer. Hurley's a lottery winner with **extremely bad luck.** The Losties find a hatch in the ground. Inside the hatch, there's a dude named Desmond. Every 108 minutes, he punches six numbers into a computer so the world won't end. (He believes.) **The hatch was built by the Dharma Initiative.**

Dharma was a group of scientists and hippies who came to the island in the '70s and drove **VW microbuses.** The Losties capture Ben, the leader of the Others. The Others capture several Losties. Locke decides they should stop entering numbers in the hatch. The hatch blows up. The sky turns purple. Desmond starts seeing the future. **The captured Losties escape.** Desmond tells Charlie that Charlie's going to die. (He's right.) A freighter shows up offshore. Jack wants to be rescued, but Locke thinks the island needs them to stay. (He's right.) The freighter was sent by Desmond's girlfriend Penny's dad, who's kind of a jerk. It blows up. Jack, Sun, Hurley, Sayid, Desmond and Kate escape on a helicopter. It crashes. (They're O.K.)

Locke, Sawyer and the rest are left on the island. Ben goes underground and turns a frozen wheel, which sends the island skipping about in time. The left-behinds end up in 1974 and join Dharma. Locke leaves the island via the frozen wheel. (**It is confusing.**) He finds Jack. Jack doesn't want to return. Locke is murdered by Ben. Jack changes his mind. The Losties return to the island, but some end up in 1977, where they find their friends. **They**

detonate a hydrogen bomb to alter time and stop their original plane crash from happening. (**It is confusing.**) The Losties are back in 2004. The plane does not crash. But they are also in 2007. Still on the island. In a parallel timeline! (**It is confusing.**) Locke comes back to life. Except he is really the Man in Black, who has lived on the island with his brother Jacob for a really, really long time. (He is also the smoke monster.) **Locke, who is not Locke, tricks Ben into killing Jacob.** Jacob, who is maybe a ghost, tells Jack that the castaways are "candidates."



Here two examples of using typography to create structure in different ways. The Time magazine article about TV series *Lost* uses boldface and yellow highlighting to place emphasis on parts of the text. The "contributors" page of *InStyle* magazine, on the other hand, uses typographic consistency in order NOT to place emphasis on any of names, establishing therefore a parallelism, which gives every name the same value.

Inside *InStyle* | CONTRIBUTORS



beyond the bombshell

"Photographers such as Helmut Newton and Ira Lippman have influenced me," says the stylist for our Scarlett Johansson cover story (p. 30). "We wanted to paint a portrait by using pale colors and forms to exalt her voluptuous body." This artistic point of view is also evident in Tarabini's collaborations with legendary

Behind the scenes "On set, Scarlett was relaxed but focused. She wore gorgeous bling in diamonds [like a true diva] and knew exactly what she did and did not like."

Rossella Tarabini

"Looking at vintage fashion images from different vantage points really inspires me," says the stylist for our Scarlett Johansson cover story (p. 30). "We wanted to paint a portrait by using pale colors and forms to exalt her voluptuous body." This artistic point of view is also evident in Tarabini's collaborations with legendary



"Best Beauty Buys" (InStyle, p. 26). His work can also be seen in *The New York Times* and *Newsweek*. **Behind the scenes** "We wanted to create images with color and richness but also some action. Using gold, diamonds and pearls allowed us to capture a glamorous vibe."

James Wojcik

"The photo [of me with daughter Tali] was barely out of junior high when he started his career. "I would photograph make-out partners when I was 13," says the L.A. native with a laugh. "Eventually I moved to New York at 22 and ended up working with art directors like Fabien Baron." For this issue, Wojcik shot the section opener for our

"Best Beauty Buys" (InStyle, p. 26). His work can also be seen in *The New York Times* and *Newsweek*. **Behind the scenes** "We wanted to create images with color and richness but also some action. Using gold, diamonds and pearls allowed us to capture a glamorous vibe."



"I grew up outside Seattle, Lee kept her love of glossy magazines under wraps. "All my parents I was going to the library to study but instead I'd sit and read People, YM and Seventeen," says our senior reporter. "When an opportunity to intern at *InStyle* came along, I jumped at it." That was six years ago. Now Lee writes stories like "Best Bras for You" (p. 26) and helps fact-check our fashion and feature stories for every issue. **Behind the scenes** "One of the best parts of my job is hitting the red carpet," says Lee. "Celebrity interviews are always so fascinating, especially if the stars play along with our questions. Over the years, I've had the opportunity to interview everyone from Madonna (my hero) to Robert Pattinson (my crush)."

Grace Lee



Vincent Peters

"Throughout my eventual road to becoming a professional photographer, I grew up in a world filled with cameras and lenses. "My mother and dad were art teachers, but I couldn't draw or paint," admits Peters, who has worked on ad campaigns for Hermès, Louis Vuitton and Muji. "Photography was a key to keep respect." This month, the Paris-based

Behind the scenes "Shot in the historic Savoy Theatre in London's West End, the star turned up the charm for the cameras as if there were a full audience," Peters says.

RHETORIC IN NEWS DESIGN

“— Look Mr. Carter, here is a three-column headline in *The Chronicle*. Why hasn’t the *Inquirer* a three-column headline?

— The news wasn’t big enough.

— Mr. Carter... if the headline is big enough, it makes the news big enough.”

Dialogue from the movie *Citizen Kane*, directed by Orson Welles in 1941

The design of newspapers and magazines consists of arranging text and images on a page to transmit information according to editorial and graphical guidelines and goals.

Journalism is often attached to the words “facts” and “neutrality”, and one of the biggest assets a newspaper can have is credibility. Nevertheless, one fact can be told in many different ways. The selection of photographs, for instance, can establish unspoken connections between image and content. The overall arrangement places emphasis in certain parts of the story. Typography, as seen in the previous chapter, gives personality to content: authority, credibility, modernity, freshness, tradition.

Design critic [Rick Poyner](#), during a lecture given at the *MFA Design as Author* program in the School of Visual Arts in 2006, commented on journalism:

“Journalism reports impersonally. (...) I wouldn’t say objectively, because, you know, we are not naive... we know that total objectivity is impossible to achieve. But we do know that journalism can concentrate on the facts. It can present those facts in a fairly neutral way without any commentary of any kind. Of course, the selection of facts is loaded, you could say, and it is also true that you can report the same news story any number of different ways, depending on your readership and its perceived requirements and interests. That is one of the first things you are taught as journalist: how you do that, take the same basic information and present it in a different order, with different emphasis for different audiences.”

BUILDING AN IMAGE

—What kind of newspaper is this?

The graphical style is one component of the whole editorial style of a newspaper. The style guides are a set of standards for the writing and design of the newspaper. Since newspapers are frequently made by a large team, a style guide is crucial to ensure the consistency throughout the publication. Design guidelines for newspapers are usually very meticulous, detailing every layout aspect, like typefaces, column widths, and line spacing.

The guidelines help to construct the newspaper's image. The use of typography, information graphics, photography and graphic design in general play an important role in building a character for the publication. Although most newspapers seek a credible image, this credibility can be accompanied by different sets of characteristics. Some publications aim at a traditional tone, while others want to look modern and dynamic. While some newspapers have a text-based approach, others are based in graphics, photographs, quotations, bullets, colors. It can be argued that the former is made for reading, while the latter is made for looking.



The text-based newspaper uses expository writing to construct a broad argument. The viewer needs time and absorption to go through the content and consider the evidences. The predominance of text might grant an authority to the newspaper and to the author, which makes the argument stronger and the newspaper more credible.

The image-based newspaper processes the information, delivering a “pre-chewed” story to the reader. The infographics, as previously discussed, imply a point-of-view, but carry an aura of objectivity, free of any opinion. The headlines, bullets, quotation and images direct the reading.

Below: two daily newspapers from Germany. *Frankfurter Allgemeine* is text-based, with a clear use of grid, conveying an image of tradition, seriousness and in-depth coverage and analysis. *Bild*, on the other hand, prefers strong images and eye-catching headlines in multiple sizes and treatments, expressing an idea of quick-reading entertainment and superficial coverage and analysis.

Tabloids use color and/or eye-catching headlines to stand out in newsstands. Below: *Daily Star*, from England, *Iltalehти*, published in Finland, and two editions of *Öhtuleht*, published in Estonia. On the opposite page, *New York Post* and *Daily News*, both from the United States.





Above: *The New York Times*, from the United States, uses old-style design elements to convey an image of tradition. *The Times* keeps its overall look since its beginning, making only small changes from time to time. The last one, in 2003, implemented Cheltenham as the main typographic family. Tom Bodkin, assistant managing editor and design director of *The Times*, declared that their goal with the change was to “enhance legibility and bring a more orderly look to the pages while preserving the ability to convey a clear hierarchy of news values. We wanted to appear traditional but less old-fashioned.”¹

On the next page: Portugal's *i* takes the opposite approach. Instead of building its credibility through a traditional look, the Portuguese paper invests in modern-looking features for a digital-era audience. Peter Preston, who was editor of *the Guardian* for 20 years, called *i* the newspaper of the future, and “one of the world's most innovative (and immediately successful) papers”²



Portugal é o país da Europa com mais doentes mentais

Polémica. Alunos com 15 anos vão poder saltar directamente do 8.º para o 10.º ano

Crise. Luís Amado em vias de abandonar governo de Sócrates

¹ (The New York Times 2003)
² (Preston 2009)

Captain's table

"There are many excellent restaurants in Calais, but for superb value and stylish surroundings, L'Histoire Ancienne stands out." Capt David Miller, P&O Ferries
For more Captain's tables guardian.co.uk/travel



3



Donald McRae

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areth Barry has two days left. Two days to endure before his agonising wait ends, and just two days to convince Fabio Capello he has recovered sufficiently from damaged ankle ligaments and can finally join England's World Cup squad. On Monday morning the protective boot and the oxygen tent will be set aside as the 29-year-old defensive midfielder looks on anxiously while the country's leading orthopaedic surgeon, James Calder, hunches down over his right ankle and begins the scrutiny that could have such an impact on Capello's meticulous plans.

These deeply personal moments will leave the usually calm and equable Barry

Family Saturday Guardian 22.05.10

Anstey Spraggan's family is 'wild and chaotic', while her husband is 'quiet'. How do you merge a stepfamily composed of three personalities? Partly by accepting that love needs time to flower

How to survive a stepfamily

A friend once told me that his whole failed marriage would have been different if someone had only known that he was all right not to love his stepson. This may sound cruel, but it wasn't meant that way. In fact, the assumption that a step-parent will instantly adore a stepchild is top of the National Stepfamily Association's list of



Hier lernen Sie Lena

Ablehnung „Eeeee! Semicool!“
Aufregung „Ich flipp aus!“
Dankbarkeit „Danke schön!“
Tote Ablehnung „Nöööööööö!“
Totale Aufregung „Ich muss pusten!“
Motivation „Ich habe voll“
Renaissance „hochsen von Red Bull“

Die Mädchen-

Katherine Heigl (31) ist auf den Kimono-Geschmack gekommen. Gerade hat sie Tochter Naleigh (1) adoptiert, jetzt will sie dringend wieder Nachwuchs. Egal, ob durch Adoption oder auf natürlichen Weg.

Hier geht es heute nur um Kinder

Von vorne...
Honor Marie (fast 2), zucker-süßes Töchterchen von Jessica Alba (29), ist wie Mamas Abziehbild. Ob sich nach ihr wohl schon die Jungs im Kindergarten umdrehen?

Honor auf dem Arm von Mama Jessica

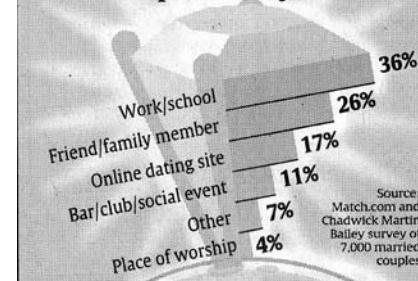
Zwei sich en, freut er BRITE

Die Homochi-Allianz von Istanbul kostete sie Sieg und Platz zwei: Sebastian Vettel (1) und Mark Webber. BILD setzt den Red-Bull-Piloten dafür Homer auf

The overall image of a newspaper is a sum of many factors, such as editorial style, use of images, typography, and infographics.

These examples present different styles of graphic elements found in three newspapers, showing how the visual choices take part in building the overall image. This page: *USA Today* (United States). Previous page: *The Guardian* (United Kingdom) at the top and *Bild* (Germany) at the bottom.

How adults who met their spouse within the past three years met



Top scoring averages by No. 1 picks as WNBA rookies:



www.usatoday.com
FINAL SCORES
Coach of steel
Terrienne Bill Cowher, in her 13th season at the helm in Pittsburgh, chases the stuff of legends ■ 1C
Bar setights Cowher notch over the Chuck Neil.
USA TODAY
NO. 1 IN THE USA
THE NATION'S NEWSPAPER
Beautifully Human
Jai Scott's aptly named new CD is sensitive and soulful to the core ■ ★★★★ review, 1D

Tuesday, August 31, 2004
Newsline
■ Dow, Nasdaq stocks fall in light trading

Index	Close	Change
Dow Jones industrial average	10,322.57	-72.87
Nasdaq composite	1,804.49	-2.60
S&P 500	1,137.45	-1.11
NYSE total market	1,071.93	-1.11

10 things to change in sports

Super 25 rankings unveiled
For No. 1 De La Salle of Concord, Calif., 151-game streak at risk, 16C

Bush twins out and about
Barbara and Jenna step into the spotlight but stay out of the bare, 4A

CONVENTION 2004
■ Protests cost off on second day, 5A
■ The Bush doctrine in hindsight, 6A
■ Delegates in decline
Role "isn't what it was" in days of the smoke-filled room, 6A

Bush's will 'has not wavered'
Party praises firm leadership

USA TODAY

With its colorful graphs and maps, USA Today is recognized as an image-based newspaper. It was seen as a considerable change from traditional newspaper design, as seen in papers such as *Wall Street Journal* and *The New York Times*.

Since USA Today saw the competition as being the television, instead of traditional papers, it used a highly visual approach to attract readers, adapting the television look and rhythm to printed press. USA Today believes the reader has less and less time, and therefore the information should be quickly accessible and digested. The facts need not only to be accurate, but also fun. The news is enveloped in an entertainment cover.

The in-depth analysis of facts one can encounter in a traditional newspaper is replaced by a simple one-dimensional presentation of information.

"Many of USA Today's graphics illustrate the tension between journalistic ideals of objectivity and the sometimes conflicting demands for entertainment, "human interest," and decoration. Although statistics are not willfully misrepresented in the information graphics of USA Today, the treatment of them as info-toons discourages the sustained analysis this mode of communication can offer. One of the virtues of information graphics is that, unlike narrative forms, they may be read analytic from different vantage points, yielding different insights. Yet in the case of many of USA Today's graphics, the multiple content of data is tied to one simplistic image, which typically indicates only the broadest message of the data, such as *rise/fall, few/many*. The pictorial devices used in the graphics counterproductively anchor the data to one dominant narrative."

When it came out, it looked really frivolous in comparison to traditional newspapers. Today, next to tabloids like *National Enquirer* and *Bild*, USA Today looks more and more serious.

¹ (Lupton and Miller, Design writing research: writing on graphic design 1999) p. 152

INTERNATIONAL

Rockies look for redemption



Matt Holliday: His Rockies' desire to do better

- For Colorado, World Series sweep by Boston not forgotten, 1, 3B
- For Arizona, youth and healthy Randy Johnson are the keys, 1B

Wednesday, February 27, 2008

Newsline



Star spangled in North Korea

U.S. national anthem part of program as N.Y. Philharmonic plays in communist capital. Will Eric Clapton be next? 4A



Iraq condemns Turkish raids

Demands end to Turkish border crossings to root out Kurd rebels, U.S. predicts 140,000 U.S. troops still in Iraq in July. 4A

Exxon Valdez case rises to top court

About 19 years after the Alaska oil spill, Supreme Court will decide if \$2.5B award will stand. 3A

Tickets for pope's U.S. visit hard to get

Only 103,000 total seats will be available for public Masses at April in New York and Washington. 4A

Money: Hummer tweaks its image

GM wants people to start thinking of brand as big truck, not gas-guzzling SUV for the wealthy. 5A

Sports: Should NCAA get tougher?

The NCAA is reassessing the sanctions it metes out for major infractions like cheating. 1B

Life: A child prostitute's way back

Carrie Philips went from the streets to law school and now fights "America's dirty little secret." 6B

Dollar exchange rates

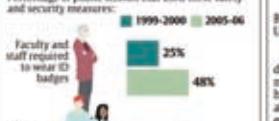
	Midday	Change
Euro (dollars per euro)	\$1.4965	▲ 0.0040
Yen per dollar	107.75	■ 0.3200
Pound (dollars per pound)	\$1.9723	■ 0.0058

• Complete report, 5A

USA TODAY Snapshots®

School safety

Percentage of public schools that used these safety and security measures:



■ 2009-2010 ■ 2005-2006

Source: U.S. Office of Safe and Secure Schools

By Susan Page USA TODAY

100 80 60 40 20 0



Optimism sinks as economy struggles

Inflation, falling home prices fuel anxiety

By Sue Kieckhoff
USA TODAY

WASHINGTON — Consumer confidence plunged to the lowest level since the onset of the Iraq war in 2003, while wholesale inflation surged to the highest yearly rate in a quarter-century in January, according to Tuesday reports offering fresh evidence the economy is teetering near recession.

Adding to the economic problems: a closely watched index of homes leased Tuesday found U.S. home prices dropped 9% in the final quarter of 2007 compared with a year ago. That's the steepest decline in the 20-year history of the housing measure, the S&P/Case-Shiller home price index.

The numbers complicate the task of the Federal Reserve, which has been cutting interest rates since September to ease a credit crunch in financial markets and bolster business and consumer spending.

The central bank's ability to maneuver could be limited if inflation continues rising. But in a Tuesday speech, Fed Vice Chairman Donald Kohn suggested the central bank was more worried about slow growth than rising prices.

"I do not expect the recent elevated inflation rates to persist," Kohn said in a speech at the University of North Carolina at Wilmington, saying a severe credit crunch and plunging housing market threaten growth.

Kohn also repeated Fed Chairman Ben Bernanke's promise that the Fed "will do what is needed," which analysts took as a sign more rate cuts are in store.

As the bad news mounts, Democrats in Congress are calling for more vigorous action to address the slumping housing market. President Bush said Tuesday the economy should avoid a disastrous slide.

"We're not in a recession, I don't think we will go in a recession. We're in a slowdown, and there's a difference," Bush told American Urban Radio Networks.

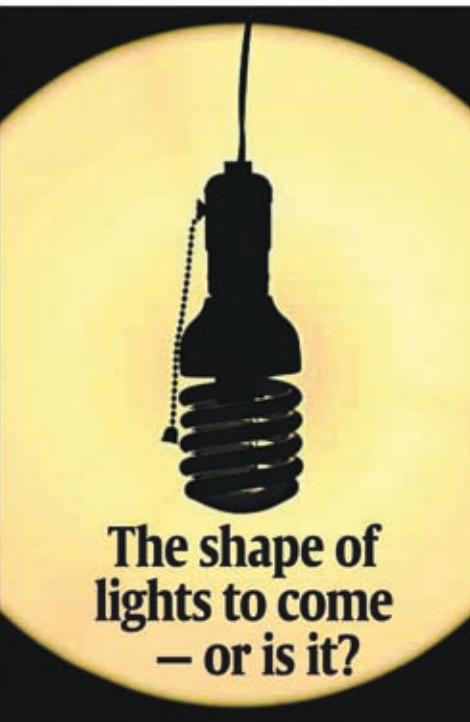
The New York-based Conference Board said its Consumer Confidence Index plunged to a reading of 75 in February from 87.3 in January. With the exception of a drop in consumer sentiment in 2003, the report is the most downturn in 15 years. Things don't look much brighter down the line. Consumers' assessment of economic conditions over the next six months is at a 17-year low.

The Fed is closely watching consumer spending, which accounts for more than two-thirds of economic activity. While the confidence figures don't necessarily predict a slowdown in spending, households are under stress from a slowing job market, sluggish wages, declining home equity and high food and energy prices.

"The expectations number is what counts," says Ian Shepherdson, chief U.S. economist of High Frequency Economics. The drop "is absolutely disastrous."

Separately, the U.S. Labor Department said wholesale inflation jumped 1.7% in January, the biggest monthly increase since 1982. The rate economists had predicted — and up 7.4%, not seasonally adjusted, in the past 12 months.

Prices for finished energy goods rose 1.5% in January, while food prices increased 1.7%, the highest bump in four years. Over 12 months ended in January, prices for finished energy goods — gasoline, home heating oil, diesel fuel, for example — climbed 22.6%. Finished food costs, for example, rose 1.5%.



Sales booming, but most still aren't sold on fluorescent bulbs

By Elizabeth Weise USA TODAY

Their spiral design is a symbol of "going green," the movement to make homes and lifestyles more energy efficient. And sales of compact fluorescent lights, or CFLs, are booming. They made up 20% of the U.S. light bulb market in 2007, the EPA says, up from 11% a year earlier.

So are they really replacing traditional incandescent bulbs? Legend has it that Congress mandated that light bulbs be at least 25% more efficient by 2012. Wal-Mart, Home Depot, IKEA and other major retailers now sell a range of CFLs, which typically use nearly 75% less energy than regular bulbs.

But now that more people are using CFLs, something of a backlash is brewing. Consumers are raising concerns about the quality of light from such bulbs and say they often don't work.

Such drawbacks help explain why, even though one in five bulbs sold in the U.S. is now a compact fluorescent, only 11% of American homes have one, according to Connie Samla, a lighting specialist at the Municipal Utility District in Sacramento.

Please see COVER STORY next page ▶

Obama now seen as more electable

46% in poll say he has necessary experience

By Susan Page USA TODAY

100 80 60 40 20 0



particularly baby boomer women, to "give her a second look."

In a general-election matchup among registered voters, Obama leads McCain by 49%-47%. McCain leads Clinton 49%-47%. McCain has beaten her among likely voters, edging Clinton by 4 points. Obama leads the Arizona senator seem to have the Republican nomination in hand, crushing former Arkansas governor Mike Huckabee 61%-23%.

The sense that Democratic presidential candidate Barack Obama is more electable than Hillary Rodham Clinton has trumped concerns about whether he has the experience to be a good president, a USA

Today, Sen. Chris Dodd endorsed former rival Barack Obama.

Even inside a newspaper there are different sections that require different tones. The politics section doesn't look like the arts or entertainment section. There is the need to use different graphic styles, while still maintaining the overall style and character of the newspaper.

Two spreads from the same edition of *The Guardian*. While the first one is the literary review section, heavily text-based; the second is the family section, using a more dynamic layout, with graphical elements such as pull quotes, maps and cut-out pictures.

8 Review Saturday Guardian 22/05/10

NON-FICTION

Liberté, égalité, fraternité

Brushes at dawn

Mary Hoffman reviews *The Lost Battles: Leonardo's War Against the French That Defined the Renaissance* by Tom Burns, £18.99

Phil Davies meets *brushes that work*

Beyond a joke

Laurence Llewelyn-Bowen designs *My Family and Other Wingers* by Christopher Moore, £12.99

What the sadhu saw

Ian Pindar on a search for enlightenment that doesn't stray too far from the well-trodden path

All Kinds of Magic: A Curious History of the Paranormal by Michael Marshall Smith, £12.99

Review Sunday Guardian 22/05/10

NON-FICTION

Endnotes

My family values

Laurence Llewelyn-Bowen designs *My Family and Other Wingers* by Christopher Moore, £12.99

Following the fortunes of our heroic mother-of-five

E4.08

From the home front

VOYAGES JULES VERNE discovering Syria ...

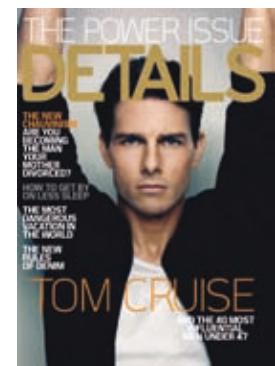
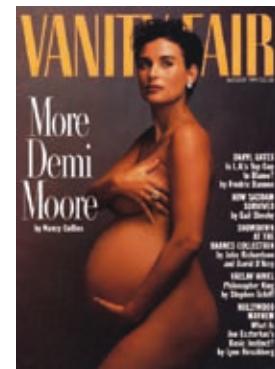
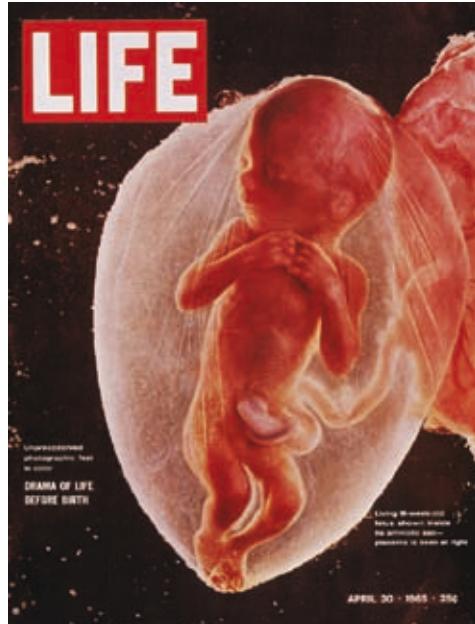
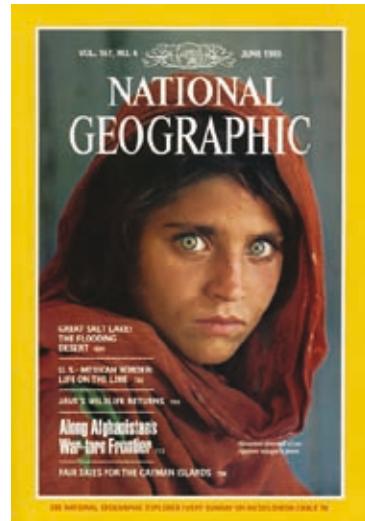
The shimmering waters of Sun Moon Lake, encircled by mountains, are a secret Xanadu

Alishan wonderland Taiwan's mountain delicacies

Newspapers usually have broader audiences than magazines. Since they are often dealing with restricted fields of information—in contrast to the newspapers' wide spectrum—, magazines have more stylistic freedom. **Magazines are expected to transmit opinions.**

Graiden Carter, editor of *Vanity Fair* magazine wrote that “it could fairly be said that newspapers tell you about the world, and that magazines, the best ones, tell you about their world—and by association, your world.”¹

¹ (American Society of Magazine Editors 2006) p.ix



ETHICS

—Non-neutral ≠ non-accurate

It is important to stress here the difference between the rhetorical approach and the unethical distortion. The argument of this work is that nothing is neutral in graphic design, since every design aspect influences the perception of the content. **But lack of objectivity does not mean lack of accuracy.** Facts can be communicated in different ways while still being truthful.

Since technology had made enhancement so easy, it is essential for the press to be vigilant in order to avoid distortion. Newspapers and magazines often have a set of ethical guidelines that help in keeping articles accurate and fair. These ethical guidelines, however, are almost entirely about the writing of the text. When mentioning design, it usually refers only to the use of photographs. The New York Times, on their *Guidelines on integrity*¹, set some ethical standards for the use of images:

“Images in our pages that purport to depict reality must be genuine in every way. No people or objects may be added, rearranged, reversed, distorted or removed from a scene (except for the recognized practice of cropping to omit extraneous outer portions). Adjustments of color or gray scale should be limited to those minimally necessary for clear and accurate reproduction, analogous to the “burning” and “dodging” that formerly took place in darkroom processing of images. Pictures of news situations must not be posed. In the cases of collages, montages, portraits, fashion or home design illustrations, fanciful contrived situations and demonstrations of how a device is used, our intervention should be unmistakable to the reader, and unmistakably free of intent to deceive. Captions and credits should further acknowledge our intervention if the slightest doubt is possible.”

The Society for News Design developed its *Code of Ethical Standards*² in 2006, which addresses some issues, but on a superficial level, without any detailing or examples. Newspapers still need to recognize and understand better the ethical issues of graphic design, in order to develop sets of graphic ethical standards as thorough as the graphic layout guidelines.

“**Lying graphics cheapen the graphical art everywhere.**

Since the lies often show up in news reports, millions of images are printed. When a chart on television lies, it lies tens of millions of times over; when a *New York Times* chart lies, it lies 900,000 times over to a great many important and influential readers.”³

EDWARD TUFTE

¹ http://www.nytco.com/company/business_units/integrity.html

² <http://www.snd.org/about/code-of-ethics/>

³ (Tufte, *The Visual Display of Quantitative Information* 2001) p.76

EXAMPLES

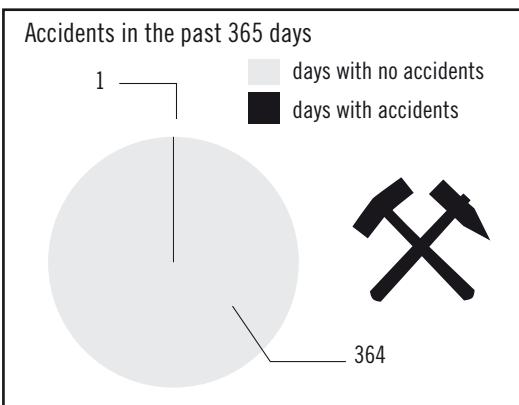
—How to change perception?

One way to minimize a subject is to emphasize the trivial, ignoring the important. This example shows two possible page layouts for the same article, about safety in the dwarfs mine. The first one uses a pie chart to compare “days with accidents” and “days without accidents”



Safety in the dwarfs mine

Causes for mining accidents include explosions and malfunctioning equipment.



The mine's executives

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in the last 365 days. The information in the chart is that there was one day with accidents and the other 364 days were accident-free. The pie chart emphasizes the accident-free area, for it is much bigger than the thin line representing the day with accidents. The second example, on the other hand, emphasizes the one accident, showing a photograph of victims. While both examples are accurate, viewers can have totally different impressions from each one. While the first one shows an efficiently safe business, backed by the pie chart evidence, the second one appeals to the viewer's emotions, with the photograph of suffering victims. The message goes from “there was only one accident” to “OH MY GOD! THERE WAS AN ACCIDENT!”

Safety in the dwarfs mine

Causes for mining accidents include explosions and malfunctioning equipment.



Miners wait the arrival of paramedics after accident



The mine's executives

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These front pages are all from the same day: January 14, 2010. The previous day, Haiti suffered an earthquake, resulting in one of the biggest tragedies in the world's recent history. The obvious choice for most newspapers around the world was to use dramatic images of injured people, destroyed houses and even severed corpses. On the other page: Spain's *Público*, USA's *express*, *Chicago Sun-Times*, *New York Post*, and *Chicago Tribune*, and Austria's *Kleine Zeitung*.

Other newspapers, like Spanish *El Punt*, chose different approaches. Below, *El Punt*'s front page, not using pictures, but only text, with a headlines that reads "An earthquake in Haiti results in 100.000 dead and missing people."

Barcelona impulsa els Jocs d'hivern del 2022 comptant amb el Pirineu

► Comença la segona fase de l'apagada, anàloga a les comarques gironines

► Gairebé 7.000 gironins, afectats pels 293 ERÒ que es van presentar l'any passat

► Les estacions d'esquí de la Molina i Masella s'entreuen com a subseus olímpiques

► L'annunci de l'alcalde Jordi Hereu agata de sorpresa les institucions de la Cerdanya i el sector de la neu

► Un terratrèmol a Haití causa uns 100.000 morts i desapareguts

► Un estudiant degolla una secretària de la Universitat de Perpinyà

► El Barça queda fora de la copa amb el cap ben alt

► La victòria a Sevilla (0-1) va ser curta pels mèrits que va fer anir l'equip de Josep Guardiola

► Xavi va fer el gol i Messi va enviar una elicit al pal d'un Palop que va estar impressionant

► Un estudiant català de la Universitat de Perpinyà va degollat altre seu amic en un accident de cotxe. El net, que té preferències grans, i Víctor, estudiant amb la filia de la víctima, són qui en vullen saber.

ara
l'energia
no te limita
ni fronteres

gasnatural
UNION FENOSA

JORNAL DE SANTA CATARINA

ANO XXXIII - Nº 11.300

Blumenau - Quarta-Feira - 31.12.2009

www.santa.com.br

11.300



“

Amar é fazer o outro melhor.

“Amar é fazer o outro melhor”
é uma citação de Zilda Arns

”

Amigos blumenauenses
lemboram legado de Zilda

As imagens da destruição em
www.santa.com.br

PÁGINAS 11 A 16

Gráfico explica como
se formou o terremoto

Promessa é acabar com as filas na Sommerfest

Oktoberfest de Verão caiu tanto nas graças do blumenauense que
organizadores resolveram enfrentar os gargalos no atendimento. Por via
das dúvidas, se houver filas, meça com a régua abaixo e envie fotos. PÁGINA 11

Brazil's *Jornal de Santa Catarina* showed a picture of Zilda Arns, deceased in the earthquake, along with a quotation from her: "To love is to make the other better." One of the headlines below the quotation calls viewers to an inside page, where a chart explains how the earthquake was formed.



CARVAJAL EMITIRÁ BONOS POR
400 MIL MILLONES LA PRÓXIMA SEMANA
El presidente de Carvajal, Raúl Chirinos, dijo que la entidad de banca por 400 mil millones de pesos, para lo que se espera que sea en el tercer trimestre del año. Recuerda que actualmente Carvajal no tiene la autorización para emitir bonos.
“EN VENEZUELA PACTUAMOS UNOS 100 MILLONES, NO PACTUAMOS UNOS 100 MILLONES”

LA REPUBLICA

DIARIO ECONOMICO, EMPRESARIAL Y FINANCIERO DE COLOMBIA

EDICIÓN 1.306

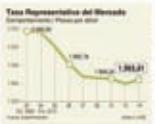


LA REPUBLICA

EN MARCHA

ESTADÍSTICAS

Dólar sube por primera vez en el corredor del año



Los tipos de cambio internacionales han subido en el año, pasando de 1.800 pesos por dólar en diciembre de 2008 a 1.900 pesos por dólar en diciembre de 2009. La tasa de cambio promedio para el año fue de 1.850 pesos por dólar. El tipo de cambio que se registró en diciembre es el más alto en los últimos 27 años. Por su parte, los alcistas de Regis Márquez sostienen que el aumento es el resultado de la depreciación del peso en el exterior, que ha caído un 10% en el año. (Foto: Google)

INTERNET

Google amenaza con
retirarse de China

Luego de que el gobernador del Banco Central de Reserva de Colombia, Germán Gómez, acusara a Google de manipular el resultado de las búsquedas en su país, la compañía de búsqueda informó que no descartaría tener que abandonar el país. (Foto: AP)

ESTADOS

Amplian plazo para la
venta de 'Terrenocentral'

El gobernador del Banco Central de Reserva de Colombia, Germán Gómez, informó que la compañía de búsqueda Google planea vender su participación en la firma de desarrollo tecnológico Terrenocentral, que tiene una valoración de 100 millones de dólares. (Foto: AP)

ESTADOS

Méndez deja la presidencia de Falabella

en Colombia

El cargo de administrador general de la firma de comercio electrónico colombiana dejó ayer su puesto para ser reemplazado por el director ejecutivo, Juan Carlos Méndez. (Foto: AP)

NEGOCIOS

Argentina enfrenta fuga de capitales por crisis

El presidente de la Asociación Argentina de Banca, Daniel Gómez, admitió que la situación económica del país es peor que las finanzas de su vecino Uruguay. (Foto: AP)

ÍNDICE DE PÁGINAS

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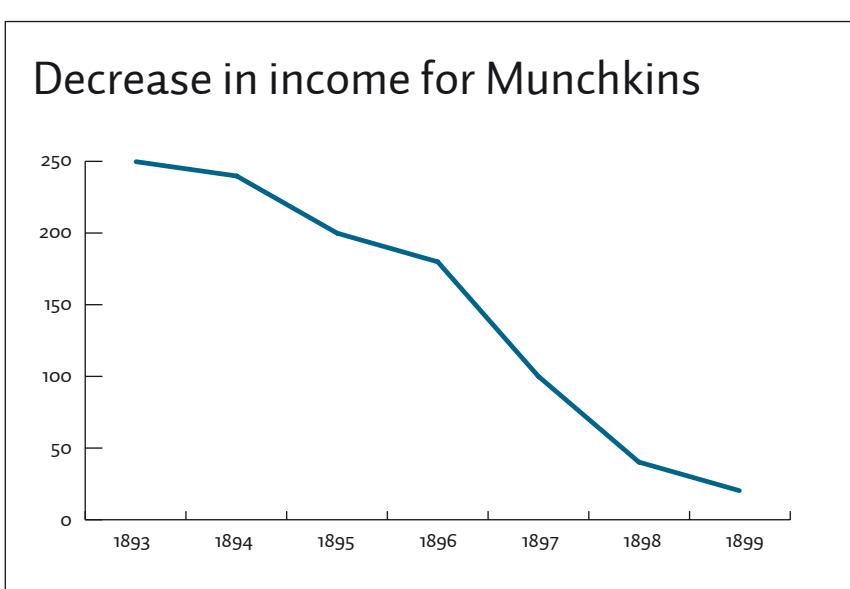
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The use of photographs can also increase the impact of information graphics. The charts appeal to reason, while photographs appeal to emotions, creating a stronger message.

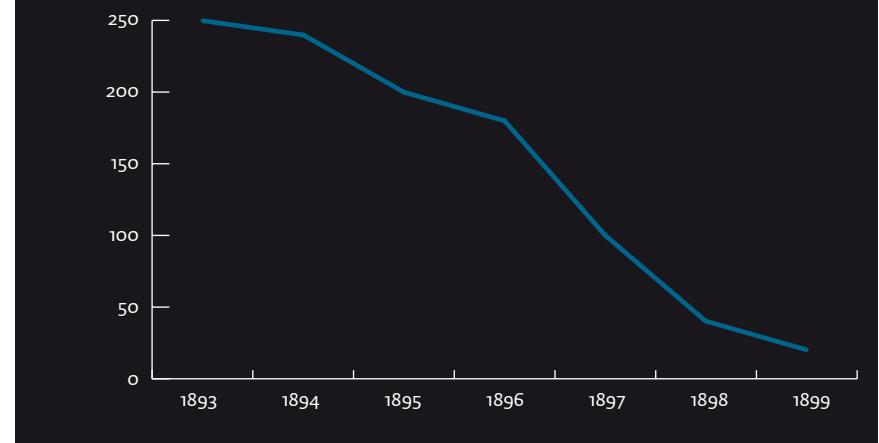
In this example, a chart shows the decrease in income suffered by the Munchkins during the reign of the Wicked Witch of the East. The first chart stands alone with a headline, while the other one shows a dirty child with a lost look. The first one has a rational appeal: it is about numbers, about money. The second one uses the emotional appeal of the child. The chart is not about numbers anymore: it is about the children who are starving because of this income decrease.

"The starving child depicted in the photograph must be real, while the statistics could be inaccurate, misleading, or even made up. Therefore, it is rational to place more weight on the one 'real' child in the photograph."¹

¹ (Hill 2004)



Decrease in income for Munchkins



The image below was published by magazine *The Economist* as part of an article about the decline of political freedom in some places around the world. Although neither the text of the article nor the charts mention economical matters, the picture of the barefoot child in a poor environment automatically makes a connection between lack of freedom and poverty. Writing it on the text could provoke controversy, and including it in the charts would require data to back it up. Therefore, the inclusion of the photograph produces a meaning without any explicit statement from the authors.

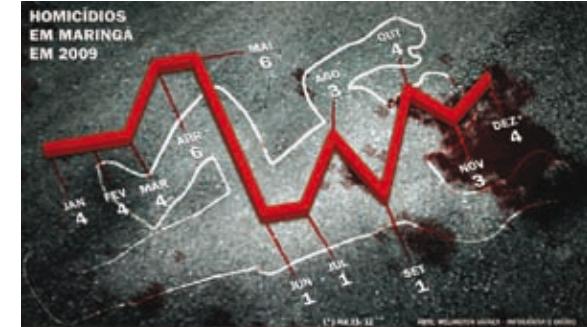
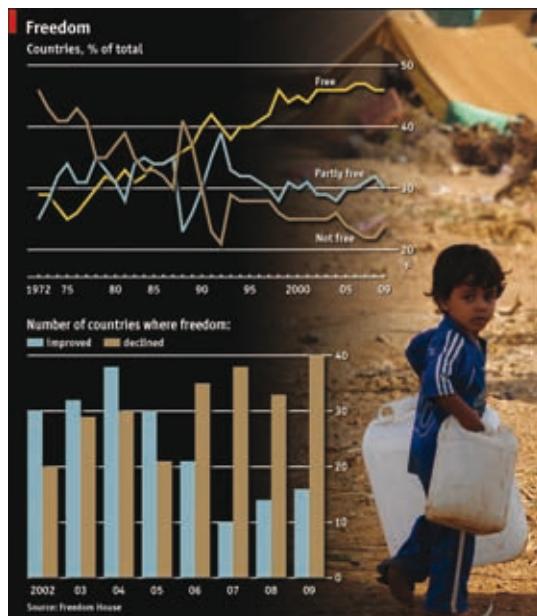
On the opposite page: A chart from *O Diário do Norte do Paraná* shows the number of homicides in the city of Maringá in 2009. The inclusion of the image—depicting a chalk outline—increases the impact of the data. Along with this image, even a chart displaying a vertiginous drop in the number of murders would send a message that the city is dangerous.

The image on the bottom was published by *The Onion*, and deals with security measures MySpace took in order to protect young users. The list gains importance by the addition of the photograph of a small child using a computer. Viewers might make a connection between the depicted child and the children they know. The dangers children can encounter surfing the web is more palpable when we see this little child alone with a computer. What could be just a list becomes a list about the safety of the viewer's own children.

The Economist, January 12, 2010

O Diário do Norte do Paraná, December 16, 2009

The Onion, April 19, 2006



New MySpace Security Measures

MySpace.com recently hired a security consultant, who has implemented the following new policies to protect the site's younger users:

- ▶ Making users verify that they are over 14 by clicking on two different buttons
- ▶ Removing previously required fields for addresses, driving directions, and home alarm codes
- ▶ Sending all pedophiles to Friendster
- ▶ Looking into that weirdo "Tom" who keeps e-mailing everyone
- ▶ Making members under 15 post photos of their mom in picture section
- ▶ Preventing users who list Vladimir Nabokov under "Interests" from contacting users who list Judy Blume
- ▶ Discontinuing link-trading partnership with AdultFriendFinder.com
- ▶ Issuing memos to members who are 25, informing them they are no longer young



RHETORIC AND DESIGN ELEMENTS

“We have to remember, however, that these kinds of visual rhetorics are not rhetorical in their own right. Yellow colour, fast editing, round or square shapes or lines, the global form or disposition of a film, are all elements that acquire their rhetorical significance from the **rhetorical discourse** which they are a part of.”¹

JENS E. KJELDSEN

¹ (Kjeldsen 1999) p. 458
² (Kinross 1989) p.134

COLOR

“Color is perhaps like music: It can play on our senses. How, we do not quite know. But suddenly we are seduced. And is not this a rhetorical maneuver, in the sense of a set of rules for making information eloquent and more easily understandable, and then – more than this – for sweetening it and slipping it down our throats?”²

ROBIN KINROSS

The right use of color is fundamental in the process of communicating information. It is a powerful tool for conveying meaning and attracting attention. Here are some of the roles colors play in information design:

Labeling

Colors can be used to mark items. On a map, for instance, colors can be used to differentiate territories.

Numbering

Different tones of color can represent different values of a variable, like the height on a topographic chart.

Representation

Colors can imitate reality, as in using blue to represent rivers and green, for forests.

Decoration

Color can be used to make graphics more beautiful and attractive.

Emphasis

Color can be used to draw the viewers' attention to certain parts of the layout. It can highlight some elements over others.

Emotion

Color can be used to convey mood, sensations and concepts, like passion, femininity, masculinity, tranquility, excitement and so on.



Color for emphasis: Thailand's *The Nation* (above) using color to highlight the words "to remain".

Time magazine using color to draw attention to Isabela Island on a map.

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Color for emotion: (above) Poland's *Kurier Poranny* and Singapore's *My Paper* using colors to create a tone. Warm, aggressive, energetic red on one side; and calm, serious, elegant blue on the other.

On the right: *Teen Vogue* (United States) using color to create an adolescent vibe, in order to set itself apart from adult magazines.



REDUCTION

"The implicit, *rhetorical* function of reduction is to suggest that the image has a natural, scientific relationship to its object, as if it were a natural, necessary essence rather than a culturally learned sign."¹

ELLEN LUPTON

Basically, reduction is about breaking things down to the most basic elements necessary for a design to function. It is not only about using the smallest amount of elements possible, but also, for example, using flat images instead of perspective and black and white instead of colors.

¹ (Lupton, *Reading Isotype* 1989) p.152



Reduction for a “neutral” look: Germany’s newspaper *Frankfurter Allgemeine* and Credit Suisse annual report using white spaces and lack of ornaments in order to achieve an image of accuracy and objectivity.



Viewers can associate reduction and simplicity with neutrality and objectivity. So, can it be that the fewer decorative elements a layout has, the less opinion and intention it carries?

As previously discussed, looking neutral comes from an intention to look neutral. Reduction is a tool for graphic designers to achieve the “neutral” look.

“Less is more”
MIES VAN DER ROHE

“Less, but better”
DIETER RAMS

United States' *The New Yorker* and *Times Herald-Record Sunday* using reduction for impact. *The Times Herald-Record* reports on the Columbia shuttle explosion (2003) using only a dramatic quote and a picture of the crew against a black background. *The New Yorker* reports on the twin towers attack from September 11 (2001) using the silhouette of the towers and no headlines.



CONSISTENCY

The repetition of elements (and style of elements) creates visual consistency. For example, having headlines always in the same size, same color, same typeface; or navigation buttons always in the same area of a website. It constructs an image of logic and order, increasing the credibility of a piece.

“(...) rhetorically, stylistic consistency gives the effect of an ordered, self-sufficient “language”. The repetition of line weights, shapes, boldness, and detail suggests the presence of a logically developed system, a uniform language of visual forms. (...) Stylistic consistency works semantically as the level of connotation, not denotation (projecting an image of grammatical coherence rather than functioning as a logical, linguistic rule). Consistency helps a set of pictures read as signs, as information markers rather than ornaments.”¹

ELLEN LUPTON

Consistency makes viewers feel at home. They can learn how the layout “works”, and predict the next elements. Edward Tufte comments about consistency applied to information design:

“Each part of a graphic generates visual expectations about its other parts and, in the economy of graphical perception, these expectations often determine what the eye sees. Deception results from incorrect extrapolation of visual expectations generated at one place on the graphic to other places. A scale moving in regular intervals, for example, is expected to continue its march to the very end in a consistent fashion, without the muddling or trickery of non-uniform changes. (...) The confounding of *design variation* with *data variation* over the surface of a graphic leads to ambiguity and deception, for the eye may mix up changes in the design with changes in the data. A steady canvas makes for a clearer picture. The principle is, then: Show data variation, not design variation.”²

EDWARD TUFTE

BP Annual Report and Accounts 2008

Performance review

Selected financial and operating information

BP and its peers make the energy markets work, by forming partnerships with resource-holding governments and applying our technology to bringing supplies of energy to millions of customers, every day. 2008 has been a reminder that the world economy depends on our efforts.

The BP 2008 annual report uses color, typography and graphic elements consistently throughout the publication.

BP Annual Report and Accounts 2008

Our performance

Progress in 2008

Performance



¹⁷Excludes time spent on site visits

¹ (Lupton, Reading Isotype 1989) p.154

² (Tufte, The Visual Display of Quantitative Information 2001) p.60-1

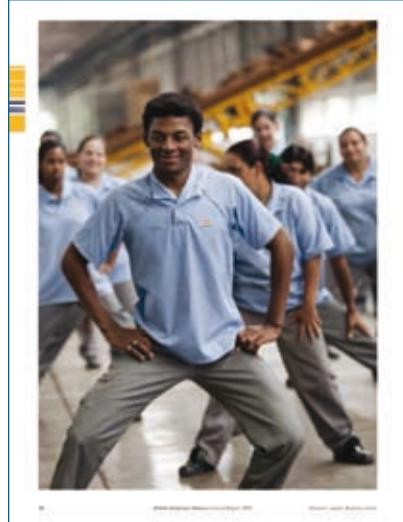
FRAMING (IMAGE)

The framing corresponds to the supposed distance between the camera and the subject, the camera position, angles, the limits of the image. A wide horizontal view of a landscape can convey distancing, lack of involvement; while a close-up creates proximity and exposure of the subject.

For example, a news article about war casualties can show the bombed field with its burned trees, smoke and destroyed buildings, conveying the impression of general destruction, of the magnitude of the attack. The same article, showing close-up pictures of the crying families of the victims, brings a close personal approach to the story, appealing to the emotions of viewers.

"Close-up photos can reveal details that create a different subject. For example, a picture of employees in a section of a busy factory shows viewers only the employees' general size and apparel; the picture makes a statement about the factory. A close-up showing the face and hands of one particular employee, however, tells a story about a person, inviting us through the details shown to speculate about his or her conditions and feelings."¹

British American Tobacco 2009 annual report uses photographs of happy people with close framing in order to make it personal and bring some positivity into their product, often related to addiction and disease.



¹ (Allen 1996) p.89



FRAMING (AROUND THE SUBJECT)

Placing a border around a subject adds shape and structure, establishing relations between the enclosed items. It is an easy way to relate contents visually, without having to openly declare that they are connected.

When an image has white space around it, it can be perceived differently than when it bleeds the page. The “bleeding” images are those that extend beyond the edge of the printed page. Their borders are the same borders of the page. The framing looks accidental, as if the image was bigger than the page. The image goes beyond the page in the mind of the viewers, who can complete the image mentally. It feels like a snapshot, a part of reality.

The image surrounded by a frame of white space, on the other hand, looks completed. The framing looks intentional. In invites the viewer not to complete it, but to focus on it, to explore its depth. It feels more like a representation of reality.

This page:
InStyle's (British edition) page uses a frame to separate the editor's letter from the “on the cover shoot” elements. Making the separation clearer is important to differentiate the editor's opinion from the products and brands displayed on the right.

Opposite page:
InStyle uses arrows and arrangement of elements to direct the viewer's eye through the page following a circle.

InStyle UK edition, June, 2010



MOVEMENT

Much feeling is conveyed in the experience of movement. Dynamic and static layouts make different impressions on the viewer. The movement of the composition can lead the eyes of the viewer, and the way content is related to the dynamics of page contributes to the way it is perceived.

“Lines, colours, patterns... carry the viewers where it will.”¹

1 (Buchanan 1989) p.103



PROXIMITY

When elements are positioned close together, they are likely to be seen as a group. Even if they have different sizes, colors, shapes, and so on, they will look like a group because of the proximity.

On a layout, elements that are perceived as a visual group might be seen as part of a meaning group as well. For instance, images which are placed together can be seen as being close in meaning, even if they belong to different topics. By seeing different pictures of people in proximity, the viewer understands that those people have something in common, that they are connected somehow, even if there is no text stating so.

SIMILARITY

If elements are similar to each other, they tend to be perceived as a group. They can be similar in any character, such as size, color, texture, value, shape, *et cetera*. If there is an element which different from the others, it is emphasized, since it is seen as not belonging to the group.

Like in the principle of proximity, elements which are perceived as a visual group by similarity are seen as a group in meaning as well. Similar elements even if spread apart can be seen as belonging to the same category of meaning. For instance, headlines and titles sharing some characteristics such typeface, weight, size and color throughout a publication can be identified as belonging to the same hierarchy level even if not seen side-by-side.

COMPOSITION

The arrangement of the elements on the visual field is a fundamental rhetorical device. The placement of elements contributes to the way they are perceived. There are different informational values in the different zones of the image: top, bottom, left, right, center and margin.

the statement sed about Bris eluded wording vetoed. "It said, come grandpar hoa! We should opportunity to say, problem.'" trous interview he accuses Cou ives and biased cal views obvi bleed over into e says. ll score-settling, me out of office much to family ie '08 campaign ext move. With er book advance she and husband n to their five- Wasilla's Lake hop for Todd to chines and small ne together since e North Slope in e are "doing a lot ard work. Those 'ust these frugal, e always done." g the challenges d Trig, their son ome. Trig has yet foods, but "he is in, breaking into has us wrapped ger." The family nguage and Trig i admits that she a," but right now to sign, "I love andson Tripp— old son with ex-

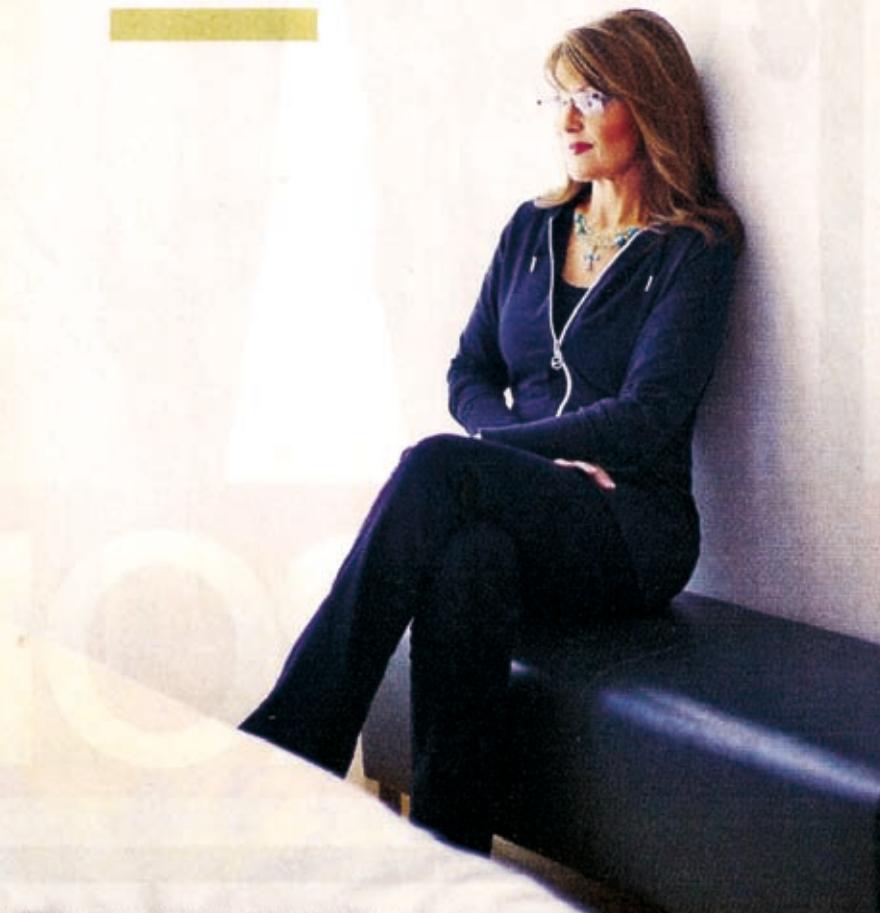
take the high road when it comes to the controversy with Levi and him doing his porn stuff. She knows she has to pull even more weight to make sure Tripp has a good upbringing." Palin blames Levi's handlers for hor-

From *People* magazine (United States):
The proximity of the "I am not a victim" pull quote and the photograph with a distant look and placid facial expression makes the argument stronger.

“

NO, I AM NOT A VICTIM. I REFUSE TO SIT DOWN AND SHUT UP AS THEY WANTED

—SARAH PALIN



Graphic designers can apply the principle of similarity to certain elements in order to communicate them as connected. In the example below, the word “traitor” in the headline is highlighted with the same color as the border of a picture of Snape. Viewing the word and the red border in the same spread, the viewer can infer that this person is the traitor, even if this is not declared in the article.



“There is a TRAITOR in Hogwarts!”

Professor Dumbledore makes strong accusations and points to fellow teacher.



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THE SUSPECTS



This example shows the principle of proximity, where elements seem connected in meaning if placed close together. The photographs of McGonagall and Snape are placed together at the top of the page, while Lupin's photograph is placed close to the headline. Who looks suspicious this time?

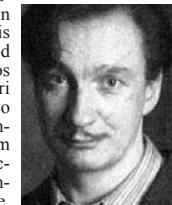


“There is a TRAITOR in Hogwarts!”

Professor Dumbledore makes strong accusations and points to fellow teacher.

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THE DESIGNER'S PROCESS

“Would you tell me, please,
which way I ought to go
from here?”

‘That depends a good deal
on where you want to get to,’
said the Cat.”

From Lewis Carroll’s *Alice’s Adventures in Wonderland & Through the Looking-Glass*. London: CRW Publishing, 2004. p. 64.

¹ (Ehses and Lupton 1988) p.5

“Many designers believe that information can be presented without ever referring to modes of persuasion. Yet all communication, no matter how spare and simple, has meaningful stylistic qualities which exceed the stated “content” of a message. Consequently, the question that designers must face relates not to persuasion or the lack of it, but rather to the intentions behind it. In other words: designers cannot avoid discussing the moral issue; they must question the ends of design, to ensure that the work disseminated does not persuade its public for undesirable ends.”¹

HANNO EHSES & ELLEN LUPTON

Graphic design can be described as the act of arranging elements on a surface in order to communicate a message. The same message can be communicated in different ways, using different elements, and different arrangements. The graphic designer has numerous typefaces, colors, signs, layout compositions to choose from. And these decisions made during the design process are going to define how the message is communicated to the viewers. Therefore it is necessary to incorporate rhetorical thinking in this process. Designer should keep the intended meanings in mind in every step. When choosing a typeface, a color, the format of a page—all of this influences the way the content is perceived.

From the initial talks with clients/publishers/etc, the designer should learn the purpose of the project. The goals to be achieved will be the basis to answer every question that comes up during the design process. The first ones are those about the core of the project:

What image should the pieces project? How should the content be perceived by the audience? What is the communication objective? What is the message? What story should the piece tell? What is the desired outcome?

Doing extensive **research** on the project topic is the next step to answer those questions. In order to convey a concept efficiently, it is necessary to know your viewers. Gathering and analyzing information about the target audience allows the designer to make conscious decisions. Audiences can be defined not only by gender, age, and geographical origin, but also by many different aspects. The piece can be directed to broad audiences like “Europeans” or “People with access to internet anywhere in the world”; but also to more specific audiences like “bicycle engineers”, “mothers with more than three children”, “owners of cats”, “local politicians”, and so on. Which conventions are understood by this audience? How do they respond to certain issues? The lack of good comprehension about the audience usually leads to ineffective and even harmful communication.

“A baby food range was introduced in Africa with the same advertising as used in the United States, showing a cute baby on the label. The company was not aware that the practice at the time was, for images on food products in parts of Africa with low literacy levels, to show the contents on the label. The products were withdrawn and relaunched with more appropriate labeling.”¹

After the research and analysis phase, designers are ready for the **definition** stage. This is the time for planning the future steps thoroughly. What is going to be designed? What will be the format? In which media will it be applied? Which will be the tone of the project?

One of the aspects to be defined then is the content. When it comes to **selection**: What should viewers see? What should be omitted? Which part of the content would assist/harm the project’s goals?

Emphasis: Which parts of the content should be emphasized/unstated? Is this what should draw the viewers’ attention? What do you want the viewers to remember the most?

Accuracy: Is the content accurately represented? How can the design distort or support accurate perception?

Association: Which parts of the content should appear connected to others? Which parts should be clearly disassociated? How does the grouping of content assist/harm the project’s goals?

Once the content is structured, the **development** phase is often the next. In this stage, there is the selection, design and arrangement of graphic elements, such as colors, typography, icons, symbols, and so on. These elements should be in tune with the goals of the project, and in accordance with the target audience.

All of these methods of invention develop a rhetorical relationship between the designer and the reader in which the designer constantly anticipates how the reader will interpret conventional elements in a given document. The report designer who selects, adapts, and integrates convention for displaying data about the company’s performance must anticipate how each decision affects the reader’s interpretation.²

The development phase presents specific questions for different aspects of graphic design:

PROCESS OF INFORMATION DESIGN

—*What kind of diagram, chart or map is best suited for this data?*

Besides the target audience and the purpose of the piece, the selection of data display also depends on the data themselves. Different kinds of data require different kinds of displays. Connecting the kind of data, the information about the viewers and the purpose of the piece, the designer can decide which kind of data display tells that story more efficiently.

Is it the goal to show change over time?

Line charts are suited for presenting data when the variable plotted along the x-axis has more than four or five data points and is

¹ From the brochure *I want to... adapt my brand, communications and packaging for an overseas audience* from the UK Trade & Investment (March 2008)

² (Hasset and Kostelnick 2003) p.72

continuous, like time, distance or temperature, for example. It is therefore appropriate for presenting trends in a series over time. The angle of the line allows viewers to see the direction of the trends at a glance.

If, however, the goal is to emphasize quantity at a few discrete—discontinuous—times, then *bar/column charts* may be more appropriate. The bars can be presented as both vertical and horizontal, but since viewers naturally associate the passing of time with left-to-right movement, vertical bars are the most efficient.

Mean Happiness

For decades, the World Database of Happiness has tracked how happy people are—not at all happy (1), not very happy (2), quite happy (3), or very happy (4). As it turns out, most of us are mostly happy, even when things aren't going so well. Here's a look at how happy some people said they were (on average) over the last 30 years.



Chart from GOOD magazine, displaying the results of a study about how happy people said they were (on average) over the last 30 years in different countries.

GOOD, April, 2010

On the next page: a page from The Fraport 2009 annual report showing pie charts. The thin line against a photographic background fits the style of the publication, but it compromises the clarity of the data.

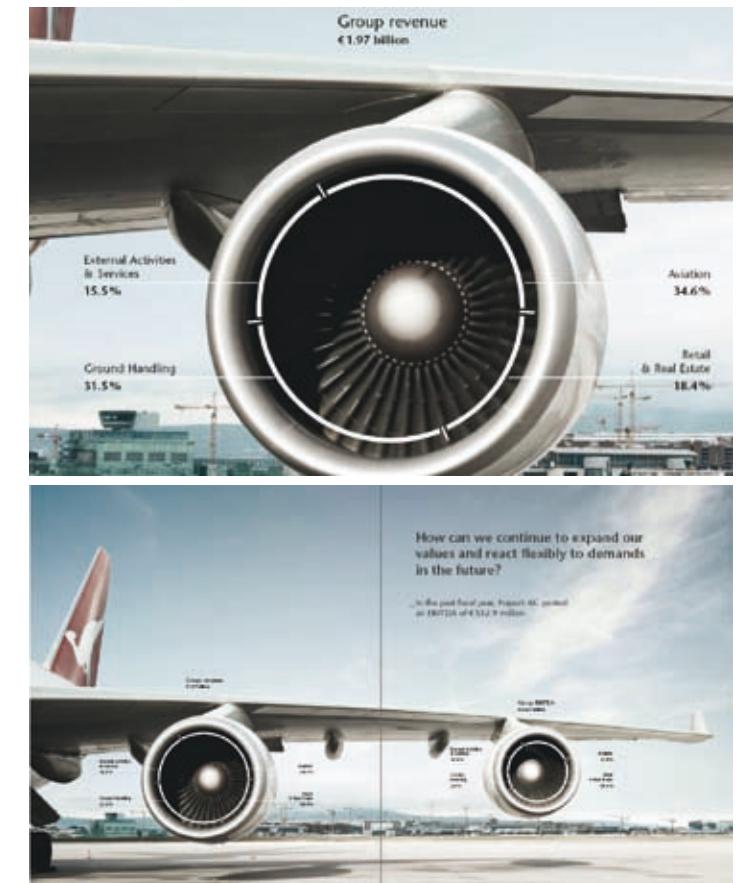
Is it the goal to compare items at one point in time?

Since it deals with discontinuous data, this situation calls for *bar/column charts*. These charts are usually the best way to compare items.

When the purpose is to establish an order of value, the use of horizontal bars can be more efficient, because viewers relate the top-to-bottom to rankings.

Is it the goal to compare parts of a whole?

Pie charts are often used for showing shares of a whole, but *bar charts* can sometimes be more efficient for this purpose. Pie charts are more effective for comparing one share with the whole, while bar charts compare values among shares—and between different data sets—more clearly.



PROCESS OF DESIGNING A MAP

What is the subject of this map? What kind of information it displays? What should it be used for? Is this map supposed to show the route to a specific place? Or should it show the location of an item? Is it a topographic map? What questions should this map be able to answer? Who will be using it and under what circumstances? Will it be read from a distance or closely?

What is the purpose of this map? What is the argument it promotes? What should it be stating clearly? How can this map assist/harm the project's goal? What story should this map be telling?

What is the tone of this map? How can the map build an image for itself? How is its "voice"? Should it be technical? Funny? Attractive? Is the audience technically knowledgeable? How to improve the map's credibility with this audience?

Which projection assists/helps the project goal? Equidistant? Equal-area? Shape-preserving?

How much information can be edited out? What is really relevant? What is indispensable? Is the project goal assisted by adding or subtracting information?

Which graphical elements—such as titles, legends, symbols, colors and so on—should the map show? Which elements assist/harm the project goals?

What is the hierarchy of information in this map? What should be emphasized? What should be in the center/margins? What should be larger/smaller than the rest? How can the colors put information in the foreground/background? How can line thickness be changed to assist/help the project goals?

PROCESS OF SELECTING TYPEFACE

How has the company/institution in charge of the piece worked with typography before? Which typefaces have been used? What image have they built? Is the intention to change/keep the image?

How does the target audience relate to certain typefaces? What typefaces have been used in pieces directed to this audience? In which circumstances they were used?

What tone should the typeface express? Should the typeface convey seriousness, objectivity, or humor? Classic and traditional or modern and innovative?

“Even in the astonishing world of the computer and the simulation machine, it must be remembered that, at least initially, it is we who will give them a program. (...). It is **up to us** to decide what we want.”¹

PAUL AND ANN RAND

¹ (Rand and Rand 1999) p.143

CONCLUSION

GRAPHIC DESIGN IS NEVER NEUTRAL

—And that ain't bad

"A message must be convincing. Every visual communication has a persuasive metacommunicational component, something that convinces the observer that it is worthwhile spending time on it, and that it is believable."¹

Every communication is rhetorical. Graphic design is communication. Graphic design is always rhetorical.

What may not be clear to graphic designers sometimes is that this lack of neutrality is not harmful to the integrity of their work. It can be that sometimes rhetoric is mistaken for distortion, and lack of neutrality is mistaken for lack of principles. **But being accurate and fair does not require being neutral.**

By acknowledging that they must make rhetorical decisions, designers take greater control over the meaning expressed by their work. Since some meaning will be perceived anyway, it is the designers' responsibility to take charge and conduct the process.

"(...) the ideal of the value-free design is a dangerous myth. In fact all design solutions carry a bias, either explicit or implicit. The more honest designers acknowledge their biases openly rather than manipulate their audiences with assurances of universal "truth" and purity."²

Each graphic element carries information and incorporates decisions. Type size, line spacing, color, framing: every decision taken by the graphic designer during the creative process influences the perception of the message. The goal of this project is not to establish a set of rules or a formula for controlling the perception of viewers, since there are no such things. The hope is that, after observing some examples of visual rhetoric, designers can be more attentive and incorporate rhetorical deliberation and more conscious decisions in their everyday creative routine.

"Most introductory graphic design courses are based on abstract formal exercises inherited from the Bauhaus and the classic Basel school projects. The detachment problem begins here. These projects either deal with completely abstract form—point, line, and plane, for instance—or they remove imagery from context. The Basel graphic translation projects, so effective in training a keen formal sense, unfortunately use a process of abstractual analysis, thereby stripping imagery of its encoding symbolism. (...) Divorcing design form from content or context is a lesson in passivity, implying that graphic form is something separate and unrelated to subjective values or even ideas. The first principle is that all graphic projects must have content."³

¹ (Frascara 1997) p.15

² (McCoy 1997) p.215

³ (McCoy 1997) p.217

THE DEVELOPMENT OF THIS BOOK

“The White Rabbit put on his spectacles. ‘Where shall I begin, please your Majesty?’ he asked.

‘Begin at the beginning,’ the King said gravely, ‘and go on till you come to the end: then stop.’”

From Lewis Carroll’s *Alice’s Adventures in Wonderland & Through the Looking-Glass*.
London: CRW Publishing, 2004. p. 121.

CONTENT

—words

The research for this work included reading books, searching the internet, having conversations with colleagues and professors, observing media and remebering personal experiences.

The collection of material started from the selection of the topic, and the selection of initial readings, from which new references came for further readings, and so on. Research on the internet included the gathering of articles written by specialists in the fields of graphic design, semiotic and art, among others. The internet was also a big source for bibliographical references, mainly through *Google Books*. From discussions with fellow graphic designers, former professors and my advisors for this work, I received precious references for further reading. Observing newspapers, magazines and publications in general, I could study how graphic design elements influence the construction of meaning.

After the gathering of material, it was time to analyze it. After the reading of texts, there was a selection and analysis of the most pertinent content. From this analysis, there was reflection on the subject, and then production of more content, through writing and editing.

In the book, the content follows a main text flow, with occasional boxes, which work like “extended parenthesis”, exploring some subjects further.

ICONOGRAPHY

—images

Since the content deals with visual rhetoric, it was necessary to have images accompanying the text, in order to construct stronger arguments. The use of **real life examples** for the discussed situations brings credibility to the work. Newspapers, magazines, books and annual reports were examined and the adequate examples were digitalized or collected from the internet. The selection of iconography aimed at diversity of origin and style, in order to show different possibilities of graphic communication.

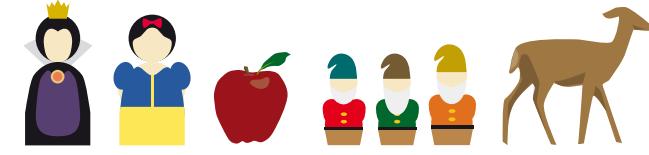
New examples were also produced specifically for this work, in order to exemplify some of the discussed rhetorical devices. For the purpose of consistency, all the produced examples had the same overall theme. This way, it could be clearer, when the example was produced for this work, or when it came from a real life source.

The chosen theme for the designs was Children Tales, using characters and situations from children's books *Snow White and the seven dwarfs*, *Cinderella*, *The Wizard of Oz*, *Alice in Wonderland* and *Harry Potter*, which are well-known in the Western world.

Using a children's book theme for information graphics, maps and newspaper pages is a rupture from the way these stories are usually visualized, which can create impact from unfamiliarity. Viewers usually have an opinion about real life topics like politics or social issues, which could jeopardize the perception of the examples, but a playful theme is less likely to meet viewers' prejudice. After all, who hates Cinderella?

The examples were designed based on the discussed content. After content analysis, **sketches were produced**, and then the **designs were developed** using *Adobe Creative Suite (Illustrator, Photoshop and InDesign)*.

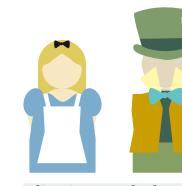
Each new example is accompanied by a set of **pictograms**, identifying the book where the information comes from.



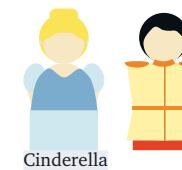
Snow White and the seven dwarfs



The Wizard of Oz



Alice in Wonderland



Cinderella



Harry Potter

BOOK

—page design

The **format** of the book—closed 148x210mm and open 296x210mm—was chosen with the production means in mind, and also the practicality and mobility.

The **grid** consists of one column for text and an extension for accommodating pictures. The inside margins are bigger than the outside margins, because of the binding.

At the bottom of the page, there is a **footer** consisting of a blue bar with the page numbers and the topic covered on that page.

The **colors** used for type are black and **blue**. The main text uses black type against a white background.

For the boxes, there is black type against a blue background. **The quotes are written in blue.**

The captions are written in black type against a blue background.

In the main text, emphasis of selected parts is achieved by using a bright yellow highlight for the **higher level** of emphasis, and dotted blue underline for the **lower level**. In the boxes, the **highlight** is in blue.

The type families used are ITC Charter and Auto.

Bitstream Charter, was designed in the 1987 by Matthew Carter. The typeface was designed with the limitations of low- and middle-resolution output devices in mind; hence the squared off serifs and lack of excessive diagonals and curves. ITC bought the Charter designs in 1993. Bitstream retains the right to sell the original designs.

It is suited to the digital printing of this work, and the possible ink-jet printing of the online published PDF format. Another reason for using Charter is that it offers small cap and oldstyle figures, making it more versatile and functional.

Auto is family of three fonts with different italic variations, designed by Akiem Helmling, Bas Jacobs, and Sami Kortemäki in 2004. Originally designed for a publication and exhibition about Maire Gullichsen and the Pori Art Museum in Finland, the family was expanded to twelve fonts for the 50th anniversary of the Finnish printing house, Salpausselän Kirjapaino Oy. It was chosen one of the “Favorite Fonts of 2004” by *Typographica* and it was one of the winners of the 2005 Type Directors Club Type Design competition. Auto has character and it is a good sans serif match for Charter.

Charter is used for body copy, headlines, captions and notes, in the main text. Auto is used for body copy and headlines in the boxes.

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“Just because something is legible doesn’t mean it communicates; it could be communicating completely the wrong thing. Some traditional book titles, encyclopedias, or many books that young people wouldn’t want to pick up, could be made more appealing. It is mostly a problem of publications sending the wrong message or not a strong enough message. You may be legible, but what is the emotion contained in the message?”

DAVID CARSON

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