

Logos

processing, perception and association

What is a logo?



A logo is...

symbol, name, sign, flag, icon, avatar

- The visual representation of a brand or company.
- The graphics element of a trademark or brand, set in particular typeface and arranged in a particular way.
- May be literal, associative and/or abstract.

Kinds of logos

The Canon logo is the word "Canon" in a bold, red, sans-serif font.

Workmark logo: text only



Lettermark logo: abbreviation + image



Brandmark logo: (symbol): image only



Iconic logo/Combo logo: text + image



Combo logo: abbreviation + image

Why are we talking about logos?

- Logos are clear and simple graphical elements.
- My claim: logos are the most concise graphical vehicle for communicating a message.
- Use logos as a model with which to study the effectiveness of imagery or depiction.
- Study vision, perception and comprehension through logos.

Talk Outline

- Purpose of logos
- Design of logos
- Good or successful logos
- Interpretation of logos
 - visual processing
 - visual perception
 - cognition
- Goodness of a logo

Talk Sources



Paul Rand
Design, Form and Chaos



Margaret Livingstone
Vision and Art: The Biology of Seeing



Richard Zakia Perception and Imaging

goodlogo!.com

<http://www.goodlogo.com>



<http://en.wikipedia.org/wiki/>

outline

Purpose of logos

“The principle role of a logo is to identify, and simplicity is its means.”

- Paul Rand, DF&C

Purpose of logos

“The principle role of a logo is to identify, and simplicity is its means.”

- Paul Rand, DF&C

What a logo is and does *[selected from DF&C]*

- A logo does not sell (directly), it identifies.
- A logo is rarely a description of a business.
- A logo derives its *meaning* from the quality of the thing it symbolizes, not the other way around.

The design of logos

- The general theory of design holds for logo design.
- Designers understand how to exploit traits of our visual and perceptual processes and our cognition of imagery.

The design of logos

- **Content & Form:** Content is the raw material of design. Form, in turn, is the reorganization and manipulation of content... Design is the function of form and content, the realization and unique expression of an idea. [DF&C]
- Design = (Content + Form) >> (Content) + (Form)

The design of logos

- **Concept & Format:** Concept is the idea on which the message is based. Format is the space in which design elements are placed and organized (images and text). [Resnick]

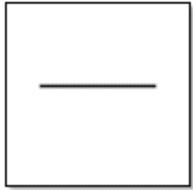
The design of logos

“To design is much more than simply to assemble, to order, or even to edit; it is to add value and meaning, to illuminate, to simplify, to clarify, to modify, to dignify, to dramatize, to persuade, and perhaps even to amuse [...] Design broadens perception, magnifies experience, and enhances vision. Design is the product of feeling and awareness, or ideas that originate in the mind of the designer and culminate, one hopes, in the mind of the spectator.”

- Paul Rand, DF&C

The design of logos

Elements of design [Resnick].



- **line:** organize, direct, separate, join, divide.



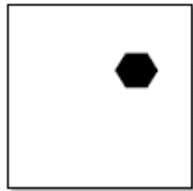
- **shape:** outline of a form.



- **texture:** look and feel of a surface.

The design of logos

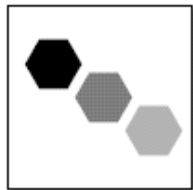
Elements of design [Resnick].



- **space**: distance between shapes and forms, white space or negative space.



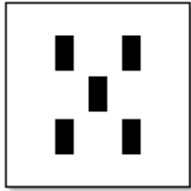
- **size**: big of small wrt other visual element.



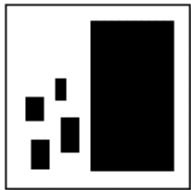
- **value**: relative lightness or darkness of an area or object.

The design of logos

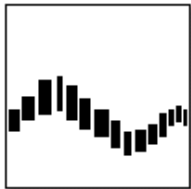
Principles of design [Resnick].



- **balance:** distribution of elements.



- **emphasis:** focal point, created with size, contrast, brightness.



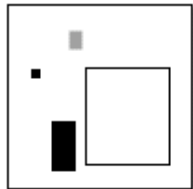
- **rhythm:** pattern created by repeating elements.

The design of logos

Principles of design [Resnick].



- **unity**: elements relate to one another and give a sense of completion or harmony.



- **contrast**: stress visual difference to enhance perception of intended message and create emphasis.

The design of logos

- These principles hold for the design of logos.
- Additional restrictions on logos: spatial restrictions, less repetition and patterns, no spatial interpolation of colour.
- Require clarity and simplicity.
- Almost always work by contrast of light and dark.
- Almost always one figure (the logo) and the ground.

Good logos

“Only after it becomes familiar does a logo function as intended; and only when the product or service has been judged effective or ineffective, suitable or unsuitable, does it become truly representative.”

- Paul Rand, DF&C

- Its effectiveness depends on **distinctiveness, visibility, adaptability, memorability, universality and timelessness.**

Good logos

Distinctiveness

- Usually means original, unique and not trendy, copied or common.
- The **stepping man** and the ubiquitous **swoosh** are examples of indistinctive logos.



from <http://www.50cups.com>

good logos

Good logos

Adaptability & Simplicity



Designer Rob Janoff

Visibility/Exposure



Designer Carolyn Davidson

good logos

Good logos

Memorability / Recognizability



Good logos

Memorability / Recognizability



Designer Paul Rand

Good logos

Universality and Emotions



good logos

Good logos

Timelessness



Designer Paul Rand



- What does timeless mean? Not trendy, can't place in a particular era.
- UPS original lasted 40 years, but strings are no longer allowed on packages!



good logos

Good logos

- These characteristics work on many different levels. Some are purely visual, others perceptual and others are cognitive.
- To understand how a designer makes a good logo, we can consider how a person interprets a logo, and how a designer exploits different aspects of this interpretive process.

Good logos

- Paul Rand splits the judgement of design (the result of the interpretive process) in two:
 1. **intrinsic**: beauty, acuity, sensitivity
 2. **extrinsic**: symbolic, subjective, opinion
- We'll break the process of logo interpretation into: **visual processing, visual perception, and cognition.**

Logo Interpretation



visual processing - where and what



visual perception - gestalt



cognition - higher level understanding



Visual Processing

- colour vs. black and white
- shape
- what and where
- fontface, text
- contrast
- horizontal / vertical lines
- luminance

Visual Processing

- Where: shape recognition, text recognition, spatial organization, luminosity.
- What: colour, emotion, texture. [Livingstone]
- Logos target the quicker, more precise *where* system.



logo interpretation - visual processing

Visual Processing

Designers create logos that are easy to process

- Use of horizontal and vertical lines prevalent in logos perhaps because of the cells that recognize oriented figures.
- Extreme use of outlines or double lines (silhouettes).
- Strong contrasts in luminance scale. Limited palette (though this is changing).

Perspective



Nintendo



inxight

- Visual system places the image in space. Detects depth and position.
- Generally logos are 2D or have an orthographic projection. Sometimes they have perspective and non-orthographic projection.

Text and Wordmarks



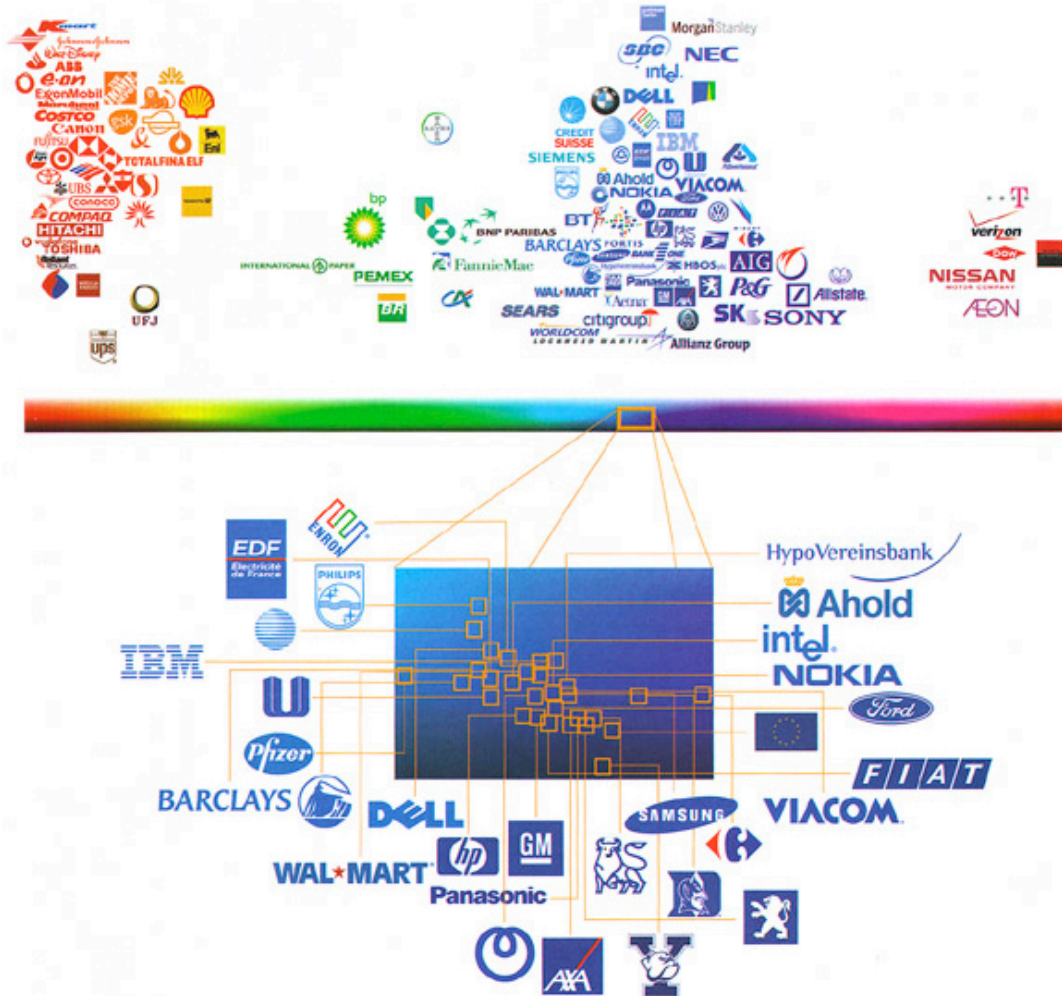
Kellogg's



Canon

- Can be any colour.
- Recognize custom fonts for both letters and form. Even if you can't read the word, a custom font hints at the workmark.

Colour space



- Use contrasting luminance to display image.
- In logos, colour is used to evoke emotion, nuance or memory.
- Logos have to adapt to luminance display.

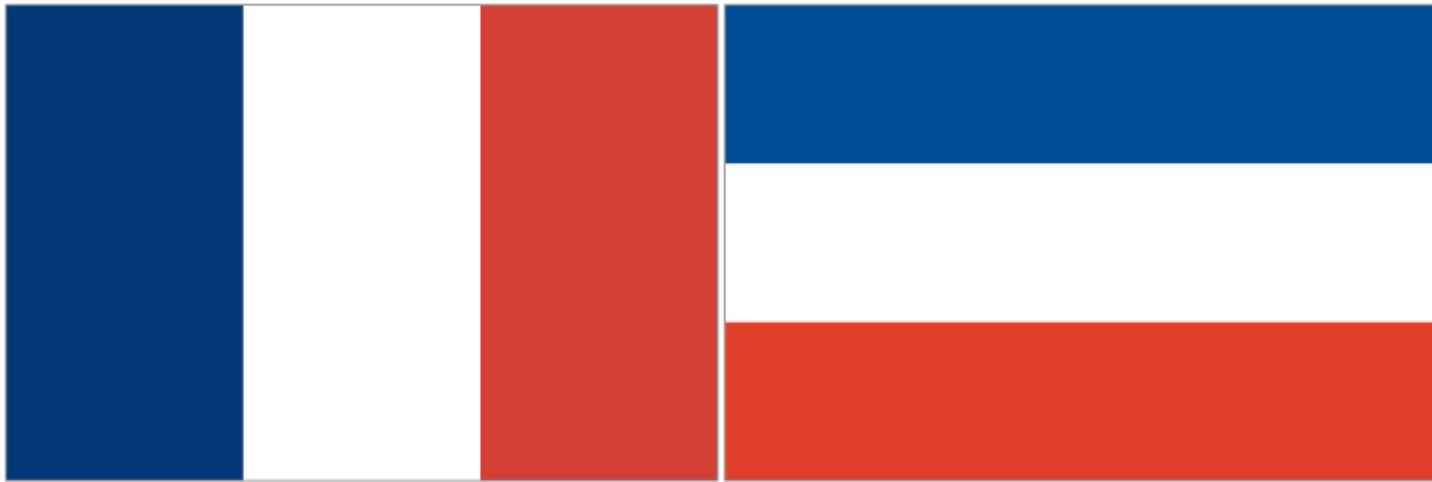
logo interpretation - visual processing

Thailand & Costa Rica



Use only colour to distinguish.

France & Yugoslavia



Use only geometry to distinguish.



Visual Perception

- How the viewer perceives the imagery, the perceptual organization done by the viewer.
- How the arrangement of elements is perceived as a whole.
- Perception is based on our desire to separate the figure from the ground.

Figure and Ground

Designers exaggerate or disguise the figure/ground relationship.



Parker Brothers

Harmony between light and dark, figure and ground, positive and negative space (Notan).

Ambiguity between figure and ground. Brain has to guess at figure, or remain unresolved.



Recycle

logo interpretation - visual perception

Figure and Ground

Designers make clever use of negative space to create more interesting or more understandable logos.



Asea Brown Boveri



Yellow Pages

logo interpretation - visual perception

Figure and Ground



Mac OS 9

- Can create a duality of images. Computer or man? The viewer sees both and struggles to reconcile both images.
- Is this a rare case of two figures that can be seen at the same time?

Gestalt

- Gestalt laws were created by psychologists to explain how people perceive imagery, how they organize visual elements and how they separate figure from ground.
- The laws are similarity, proximity, symmetry, closure and continuity.
- Logos usually exhibit several of these properties so as to direct a person's perception of the image.

Similarity



- Similar elements can be grouped together to be perceived as either figure or as ground.
- Similarity creates a redundancy and predictability of visual information.

logo interpretation - visual perception

Symmetry



Volkswagen

- Symmetric arrangements are often used in logo design.
- Again, symmetry creates a redundancy and predictability of visual information. This increases simplicity and clarity.

Proximity



Designer Saul Bass

- The proximity of these lines creates a reflective sphere, without adding detail or compromising the simplicity of the design.

logo interpretation - visual perception

Continuity



Northwest Airlines



Fuji Film

- Paths, directions and shapes are more easily perceived as being continuous.
- Continuity can direct viewer's visual path over imagery. The Northwest circle leads us from the 'N' to the 'W'. The Fuji film logo keeps us looping.

logo interpretation - visual perception

Closure: Visual Completion



- People complete the visual organization in a predictable way. Designers exploit this to simplify the logo.
- The viewer will fill in details, so the logo can exclude usually important elements, like a face, hands and legs.

Similarity and Proximity

NEXT

EXIT

- People complete the word before reading all of the letters. The proximity of similar letters create a well known pattern.
- Designers have to consider this so that they can avoid people making mistakes when they interpret a logo.



logo interpretation - visual perception

Pragnanz



Woolmark

- Perceived image is that which has the most ‘goodness’, as measured according to the Gestalt laws of perceptual organization.
- The Woolmark sign satisfies Pragnanz. It is symmetric, the proximity of lines create a whole, we see the figure as a continuous entity, the figure is similar throughout.

logo interpretation - visual perception



Cognition

- Beyond our biological and psychological interaction with logos, there is a cognitive process.
- We can associate a logo with previous knowledge, we can feel emotion for a logo, we can be overly-familiar with a logo, we can understand meaning through the juxtaposition of meanings.

Association

“A one to one relationship between a symbol and what is symbolized is very often impossible to achieve and, under certain conditions, objectionable.”
- Paul Rand, DF&C

Association

Literal relationships

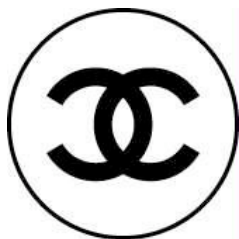
Logos associated with work of the organization or associated with the name of the company.



World Wildlife Federation



Shell



Chanel

Non-literal relationships

Logo associated with status, wealth and prestige of product and company.

logo interpretation - cognition

Emotion



- Evokes emotions. Logo is cute, approachable, unaggressive. Makes us less apprehensive about Linux.
- Usually, these logos have an animal mascot or at least have a face.

Memory



- Nike hasn't put its name on shoes since the 1970's.
- Is this a memorable logo, or the result of billion dollar advertising? Probably a combination of the two.

Juxtaposition and Parody



- Perhaps we interpret these two logos in an identical way until we reach the cognitive level, at which point, we realize that we've been tricked!
- This logo works by tricking us into seeing something familiar, before we recognize the difference.

logo interpretation - cognition

Juxtaposition and Parody



- Recall that a logo communicates a message through a meaningful arrangement of elements.
- In the case of parody logos, the new, and stronger, message is created by opposing it to the original message.
- The clever placement of two horizontal lines makes a cultural and political statement.

Goodness of a logo

- So logo's success works on three levels. Designers exploit biological processes, psychology and cognition to create successful imagery.
- Claim: this tells us that we can't directly use the theory of pragnanz to measure the goodness of a logo.

Goodness of a logo

- Apart from the associative and memory level of logo interpretation, can we identify a good logo by the characteristics we have listed?
- And so, we return to Victor's question about measuring the 'goodness' depiction.
- If we could do this for logos, which recall, we consider to be a model of more elaborate imagery, then should be able to extend to general depictions.

Goodness of a logo

- Is there existing technology to measure logo goodness?
- Market research (designers don't think much of this).
- Logo recognition... which is much more like shape matching.

Conclusion

- We have considered the logo as a model of imagery.
- We have identified aspects of logos, particularly successful logos, and how where these aspects fall in the process of logo interpretation.
- We have reviewed visual processing and perception through logo interpretation.

Conclusion

- Logos are an excellent model with which to understand design, depiction and people's interpretation of imagery.
- Open question #1: Can we measure logo goodness in a scaleable fashion that can be extended to general imagery?
- Open question #2: Would we want to?

References

- Design, Form and Chaos. Paul Rand.
- Design for Communication. Resnick.
- Perception and Imaging. Richard D. Zakia.
- Art for Computer Graphicists. Course notes for Siggraph 1998.

References

- A few logo designers: Paul Rand, Saul Bass, Milton Glaser, Art Chantry, Rob Janoff
- All logos, with few exception, are taken from <http://www.goodlogo.com>.
- Other logos were found with google's image search.
- Definitions from <http://en.wikipedia.org/wiki/>.
- <http://www.50cups.com/swoosh/>
- <http://www.e-normicom.com>
- <http://www.logo-mojo.com>
- <http://www.aiga.org>