

# Designing visual interfaces



- "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." - Paul Rand

# Elegance & Simplicity

- Elegance = design that solves a problem completely yet in a highly economical way
- Economy = minimisation of components & simplification of the relationship between parts
- Best design is the result of a continuous simplification process
  - Learnability
  - Recognisability
  - Immediacy
  - Usability

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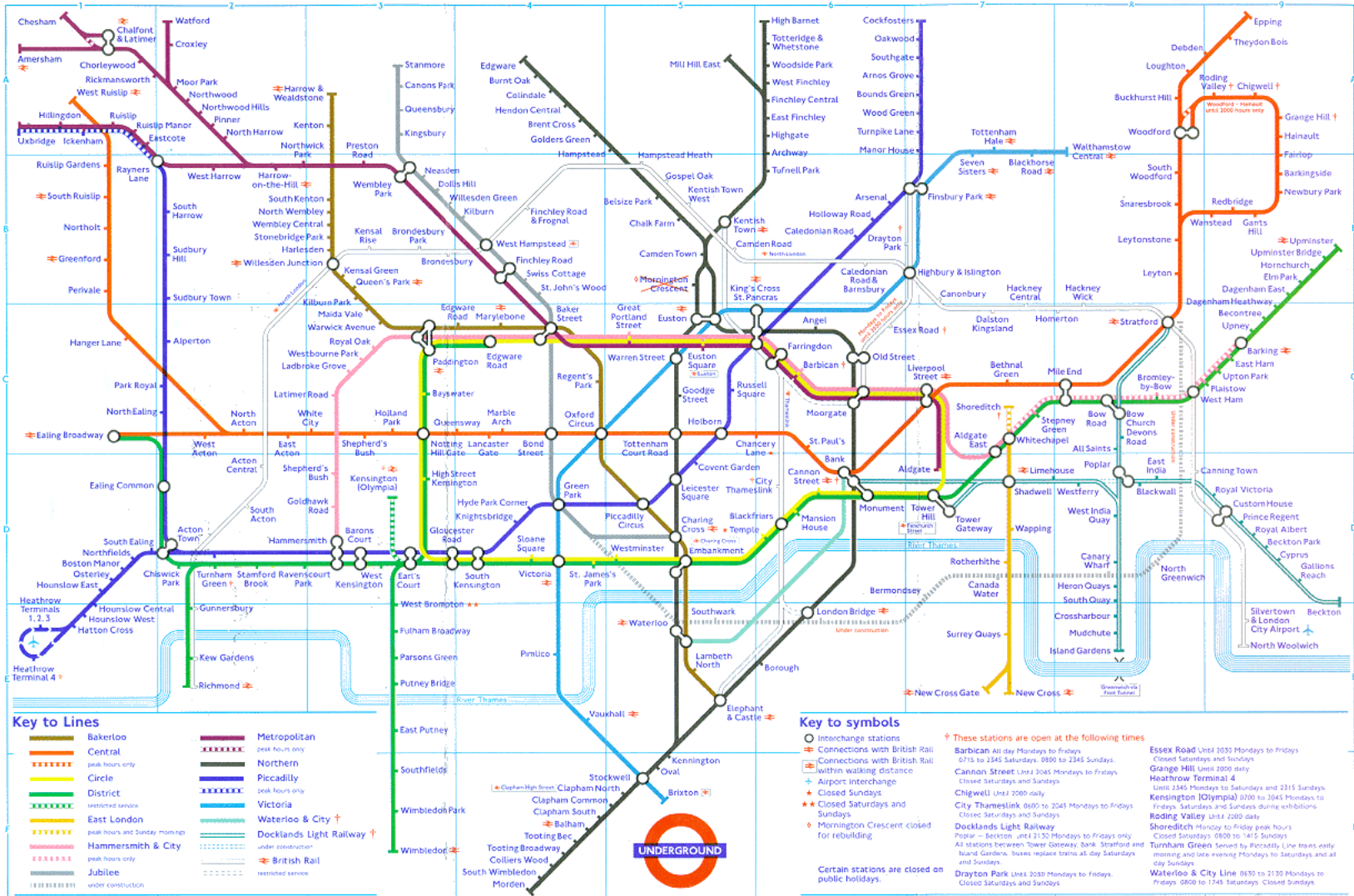
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# Principles

- Unity: The elements in the design must be unified to produce a coherent whole
- Refinement: The parts (& the whole) must be refined to focus the viewer's attention on their essential aspects
- Fitness: The fitness of the solution to the communication problem must be ensured at every level



# Techniques

- Reducing a design to its essence
- Regularising the elements of the design
- Combining elements for maximum leverage

# Reduction

- Reduce the interface elements to the absolute minimum
- Check
- Are all the elements needed?
- Are all the control necessary?
- Is it there any form of repetition? Redundancy?
- Reduction through successive refinement is the only path to simplicity



# Reduction

- Determine the essential qualities (typically a short list of adjectives) that should be conveyed by the design, along with any fixed formal elements (label, an essential control, an image, a logo, a colour)
- Critically examine each element in your design and ask yourself why is it needed, how it relates to the essence of the design, and how the design would suffer without it. If you can't answer any of these questions, remove the element.
- Try to remove the element from the design anyway. What happens? If the design collapses, either functionally or aesthetically, the elements must be replaced. Otherwise, consider omitting it from the final solution.

# Regularisation

- When further reduction is no more possible, the remaining elements can be regularised to further simplify the design
- Regularity can be achieved by aligning or reflecting elements along common axes, by standardising or repeating sizes and spacing of components, or by reducing components to basic geometric shapes

# Regularisation

- Use regular geometric forms, simplified contours, and muted colours wherever possible
- If multiple similar forms are required, make them identical, if possible in size, shape, colour, texture, lineweight, orientation, alignment, or spacing
- Limit variation in typography to a few sizes to one or two families
- Make sure critical elements intended to stand out in the display are not regularised

# Combining elements for maximum leverage

- The most challenging means of simplification is finding point of leverage at which design elements play multiple roles
- It requires insight into the user task
- Effective design utilizes every component to its fullest
- Not all GUI elements need a label

# Leverage

- Review the functional role played by each element in the design
- Look for situations where multiple elements are filling (or partially filling) the same role
- Question whether an elements role could be filled as well by an adjacent component, possibly after minor modifications
- Combine redundant elements into a single, simpler unit or replace the lot with a common higher-level unit.
- Careful with modes!!!!

