



MAP DESIGN PRINCIPLES

(BRITISH CARTOGRAPHIC SOCIETY DESIGN GROUP)

We all know that there are good maps and bad maps, the problem is defining which is which. The reason for this is that whenever we discuss the principles of map design, we have to admit that we don't know what they are.

The following principles were presented to the recent British Cartographic Society Design Group meeting at Glasgow University. They did not go unchallenged.

Principles were differentiated from rules such as those for placement of type. Whilst contributing to the design process, rules are not principles.

THREE STATEMENTS

- *The purpose of design is to focus the attention of the user.*
- *The Principles of Cartographic Design are timeless, the results are not.*
- *The Rules of Cartographic Design can be taught and learned, principles and concepts have to be acquired.*

THE FIVE PRINCIPLES OF MAP DESIGN

1. CONCEPT BEFORE COMPILATION

Without a grasp of concept, the whole of the design process is negated. The parts embarrass the whole. Once concept is understood, no design or content feature will be included which does not fit it. Design the whole before the part. Design comes in two stages, concept and parameters, and detail in execution. Design once, devise, design again. User first, user last. What does the user want from this map? What can the user get from this map? Is that what they want? If a map were a building, it shouldn't fall over.

2. HIERARCHY WITH HARMONY

Important things must look important, and the most important thing should look the most important. "They also serve who only stand and wait." Lesser things have their place and should serve to complement the important. From the whole to the part, and all the parts, contributing to the whole. Associated items must have associated treatment. Harmony is to do with the whole map being happy with itself. Successful harmony leads to repose. Perfect harmony of elements leads to a neutral bloom. Harmony is subliminal.

3. SIMPLICITY FROM SACRIFICE

Great design tends towards simplicity (Bertin). It's not what you put in that makes a great map but what you take out. The map design stage is complete when you can take nothing else out. Running the film of an explosion backwards, all possibilities rush to one point. They become the right point. This is the designer's skill. Content may determine scale or scale may determine content, and each determines the level of generalization (sacrifice).

4. MAXIMUM INFORMATION AT MINIMUM COST (AFTER ZIFF)

How much information can be gained from this map, at a glance. Functionality not utility. Design makes utility functional. All designs are a compromise, just as a new born baby is a compromise between its father and mother. The spark which makes a map special often only comes when the map is complete.

5. ENGAGE THE EMOTION TO ENGAGE THE UNDERSTANDING

Design with emotion to engage the emotion. Only by feeling what the user feels can we see what the user sees. Good designers use Cartographic fictions, Cartographic impressions, Cartographic illusions to make a map. All of these have emotive contents. The image is the message. Good design is a result of the tension between the environment (the facts) and the designer. Only when the reader engages the emotion, the desire, will they be receptive to the map's message. Design uses aesthetics but the principles of aesthetics are not those of design. We are not just prettying maps up. The philosophy is simple, beauty (aesthetics) focuses the attention. Focusing the attention is the purpose of map design!