Names placement on maps (by Tjeerd Tichelaar)

Guiding principle: "An optimal association should be achieved between the name and the named object".

Take into account:

- Spatial characteristics of the objects: point line bounded/unbounded area
- External factors: non-textual map content
- Graphic variables of text
- Esthetic & readability

Spatial characteristics of map objects

(1) Point objects

- explicitly symbolized named objects: towns, mountain tops, passes, ruins
- implicitly symbolized named objects: capes
- not symbolized: sea depths

(2) Linear objects:

- explicitly symbolized named objects: streams, canals
- implicitly symbolized named objects: coasts
- independent objects: streams, roads, railroads
- derived from area objects: boundaries, coastline = land area boundary (generally unnamed)

(3) Area objects:

- explicitly symbolized (= cartographically bounded) named objects: lakes, islands administrative areas
- implicitly symbolized named objects: swamps, mountain ridges, depressions, trenches, basins
- id., partly symbolized: peninsulas, delta areas, gulfs and bays, seas, straits
- id., collectivities: archipelagos, lakes areas
- not symbolized: historic areas, uncategorized physical areas (boundaries variable or disputed)

Non textual map content

- avoid horizontal lines
- where possible, avoid crossing of lines (especially black and high density)
- avoid erroneous association
- do not cover important detail (cf.: stay clear of Samosir!)

Graphic variables

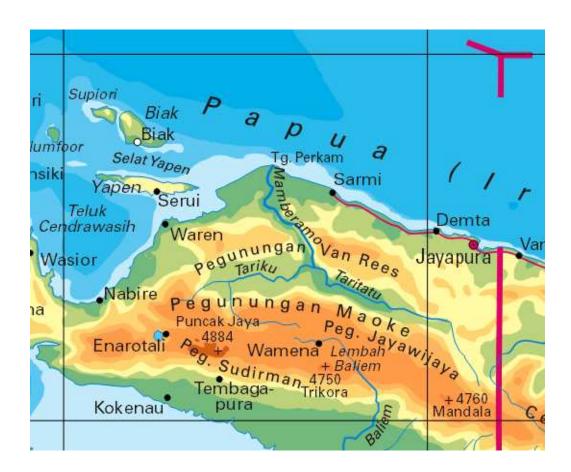
- (1) colour
- (2) size
- (3) spacing & lead
- (4) plasticity
- (5) type style: slant, case, letter width, line width, underline

Colour

- systematic colour differentiation (water/land/...)
- only if technically possible
- monocolour only
- halftone possible
- possibilities defined by colour content of map

Size

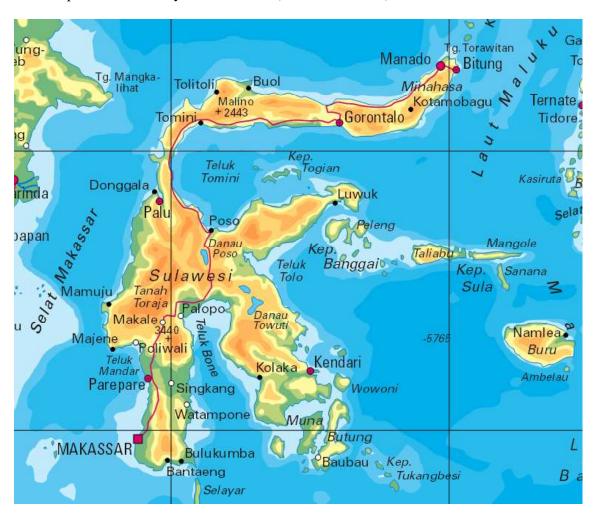
- fixed vs. variable type size
- type size variability in combination with plasticity
- use limited & discrete type sizes
- size represents hierarchy (cf. Irian)



Spacing/lead

Use:

- spacing may be appropriate for area features
- optional for visually bounded areas (islands, countries) cf. Sulawesi



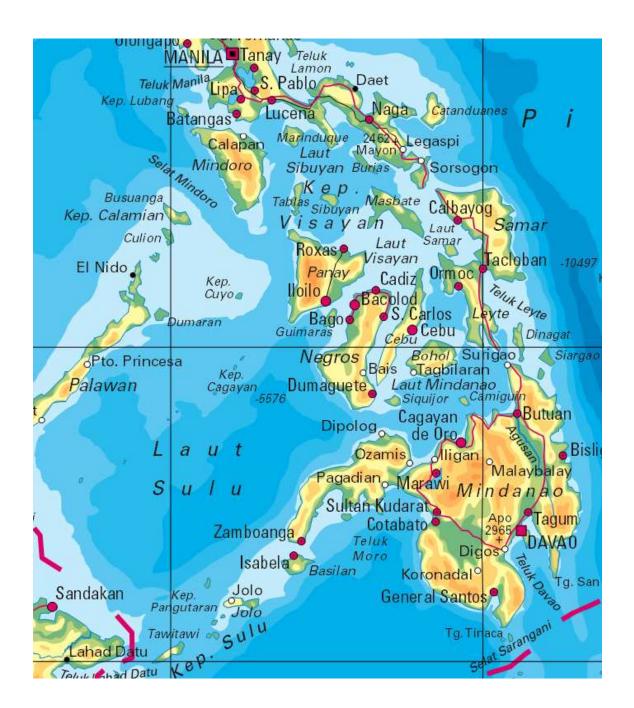
- mandatory for larger objects without visible boundaries cf. Aceh
- in combination with plastic name placement cf. Aceh
- if not plastic, fixed kerning is preferable





Preconditions for letter spacing:

- the named object should be an area feature
- in case of non-plastic name placement, the name should fit inside the boundaries of the named object cf. Visayan



Plasticity

Use:

- to support association name-object
- to avoid confusion with other names
- for efficient use of space

N.B.:

- take care of unwanted associations (cf. border-crossing areas)
- guard coherence
- maintain esthetic appearance (smoothen curved names following rivers)





Type style

Slant

- roman vs. italic type style
- logically used to distinguish two major object classes: e.g. features of high relief (mountains, plateaus) vs. features of low/no relief (valleys, lowlands)
- backward italic (third option) rarely used

Case

- capital vs. mixed case
- suitable for hierarchical as well as qualitative distinction
- capitalized text allows smaller type

Letter width

- condensed fonts require larger type size
- suitable for qualitative object class distinction

Line width

- bold medium bold type varieties
- suitable for hierarchical and qualitative object class distiction

Underlines

• single or double underlines (cf. for administrative capitals)

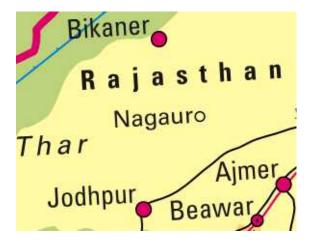
- solid or dashed lines, or combinations of these
- suitable for distinction of order

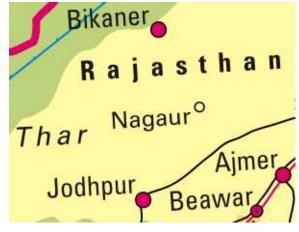
Esthetic & readability

- relative location symbol name (positioning)
- coherence of name (in spaced or divided words)
- orientation of name
- abbreviation/division
- general impression of map

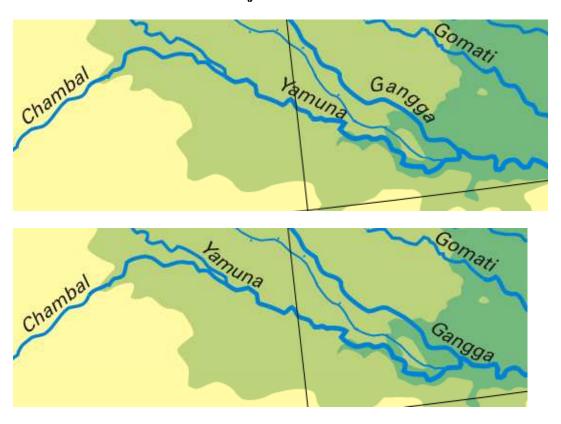
Positioning:

- 'rule bases' for names placement 'justification'
- avoid confusion of symbols and text
- offset (names at linear elements)
- plasticity level of curvature
- external factors require individual decisions
- visual impact (even distribution)
- wanted vs. unwanted variability



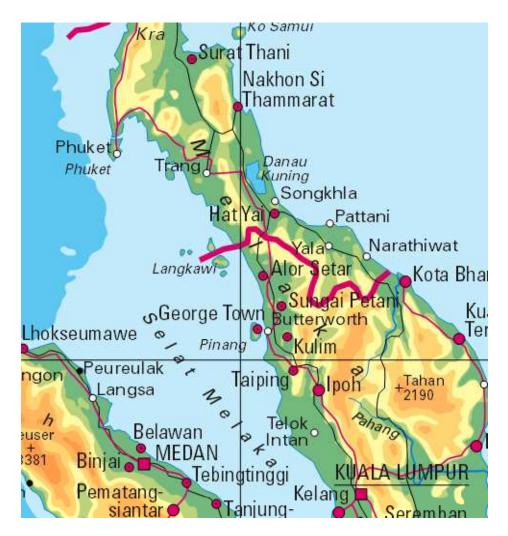


• N.B. Remember the guiding principle: position the name so as to optimize the association between name and object!



Coherence:

- kerning/spacing
- spaced vs. compact (cf. Melaka) long vs. short forms (Ural, Andes)
- take care of ligatures
- lead & spacing: dependent of map (names) content



Orientation:

- 'horizontal' = following grid
- systematically rotated (cf. Jawa)
- plastic names approaching vertical line: define logical reading direction (cf. river delta)



Abbreviation/division:

- word division should be linguistically correct
- divide between generic and specific elements
- division required by space OR clarity
- use standard abbreviations

General impression:

- a map should not appear unpleasantly crowded
- do not use an unnecessary overdose of style variables
- amount of graphic text variation is commanded by purpose of map