

Thursday, 5.45-8pm



Department of Geography, Earth, and Environmental Science (GEES)

Annual Career Night

What Can You Do With Your Degree?

Calling Students Interested in Pursuing a Career in Geography, Earth, and Environmental Science

- Meet UNBC alumni and other professionals from the government, private sector, and industry.
- Short presentations from speakers followed by a panel discussion session
- Come prepared to ask questions!

Pizza & Soft Drinks Provided

Speakers

James Adamson

Founder
Northwater Consulting

Vanessa Foord

Climatologist, Ministry of Forests,
Lands, Natural Resource
Operations and Rural Development

Shane Doddridge

Cultural Heritage Coordinator
Tsilhqot'in National Government

Tyler Garden

Project Manager,
McElhanney, Prince George

Date

Thursday, Jan 26, 2023

Time

5:45 PM – 8:00 PM

Location

Lecture Hall
8-166, UNBC

Contact

Siraj ul Islam
sirajul.islam@unbc.ca

Ellen Petticrew
ellen.petticrew@unbc.ca



Taranaki / Mt. Egmont



Second name: in Brackets or Italics e.g. London (Londres) / *Londres*

Map Lettering

'labelling'

General rule:

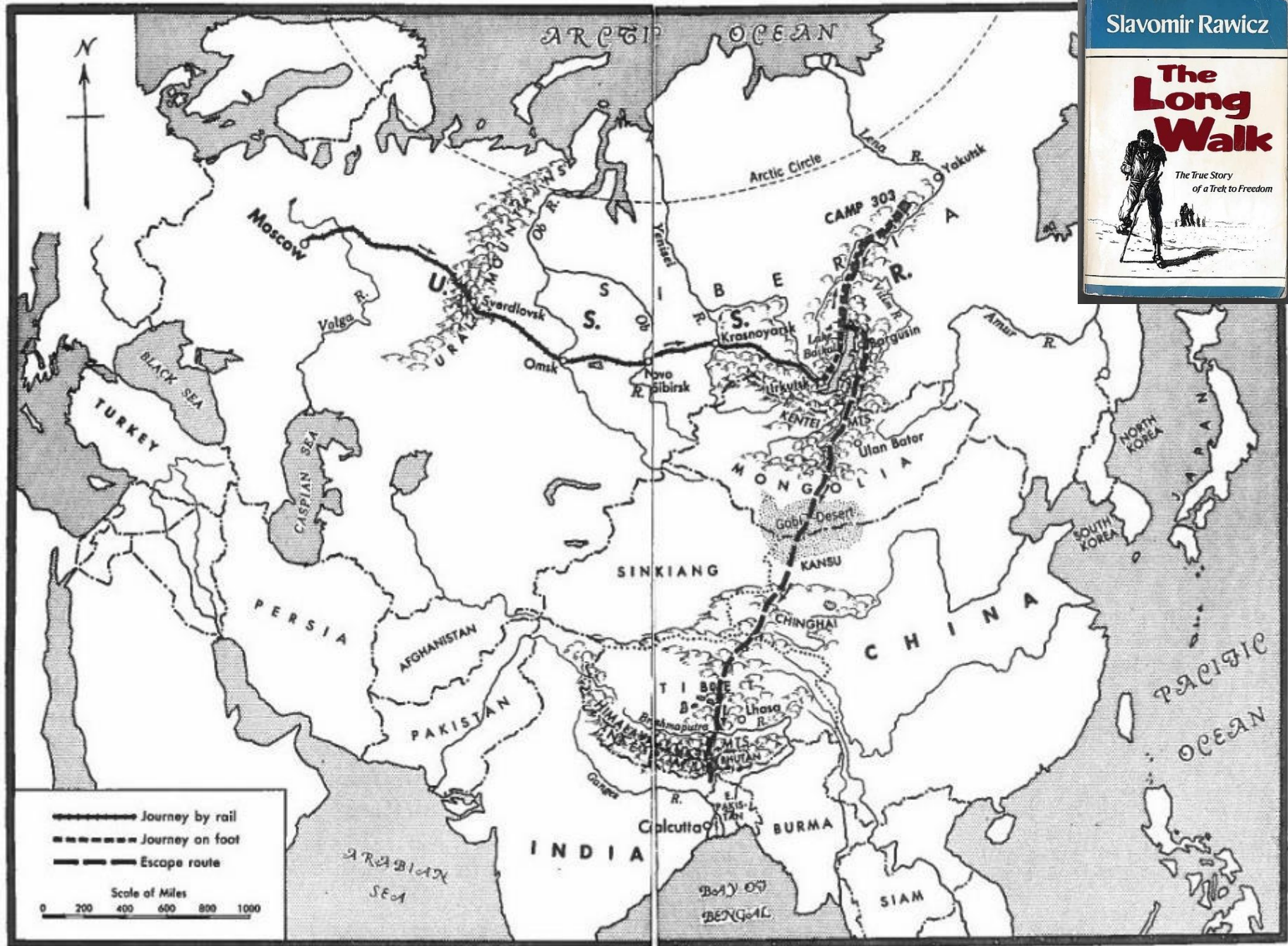
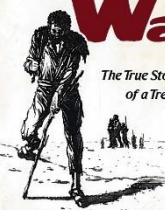
Lettering is an extension of the symbol itself, and should be 'automatically' attached to it in the mind of the reader, both in design and positioning: 'good lettering' is barely noticed

Lettering is like a soccer/hockey referee - if he doesn't make any mistakes, you don't notice him

Slavomir Rawicz

The Long Walk

The True Story
of a Trek to Freedom



Lettering – overview

Perhaps the most challenging part of digital mapping
[early computer maps were obvious by their lettering]

Consists of:

a. Typography – lettering design

b. Positioning – lettering placement

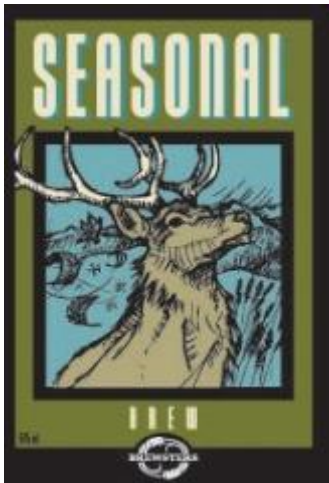
a: can be easily automated in GIS software

b: can be more subjective - needs manual input

1. Visual Design Variables

a. Font (~shape)

- serif (e.g. Times)
- sans serif (e.g. Geneva)
- decorative (e.g. Joker)



Sans serif



Serif
Decorative



Serif 2015

Google™

[Google Search](#) [I'm Feeling Lucky](#) [Advanced Search](#)
[Language Tools](#)

Google
Canada

Sans-serif 2016



Font Humour



I shot the serif.

Bob Marley / Eric Clapton:

<https://www.youtube.com/watch?v=tRgcwT9X2J8>

Font Choice is mostly based on preference ..

... except for some nominal associations:

e.g. historical oldies

Stonehenge, battles

Serif for natural features ?

Sans-serif for human features ?

Choice of Lettering fonts

Wide range of choices in software -as in MS Office

Legibility: good distinction between letters in the alphabet

Visibility: good contrast between lettering and background

Aesthetics: avoid ugly letter proportions and faces

Don't use Courier (typewriter) !!

Comic Sans ?



comic sans

still a better choice
than trump



EXAMPLE OF POOR FONT LEGIBILITY:

Would you sign your boys up for this league ?



Spruce City Minor Boys Softball

Ages 7 - 19

FINAL REGISTRATION

Call: Darlene 562-3119

Lorry 561-9171

157758

b. Form: *italic* or upright

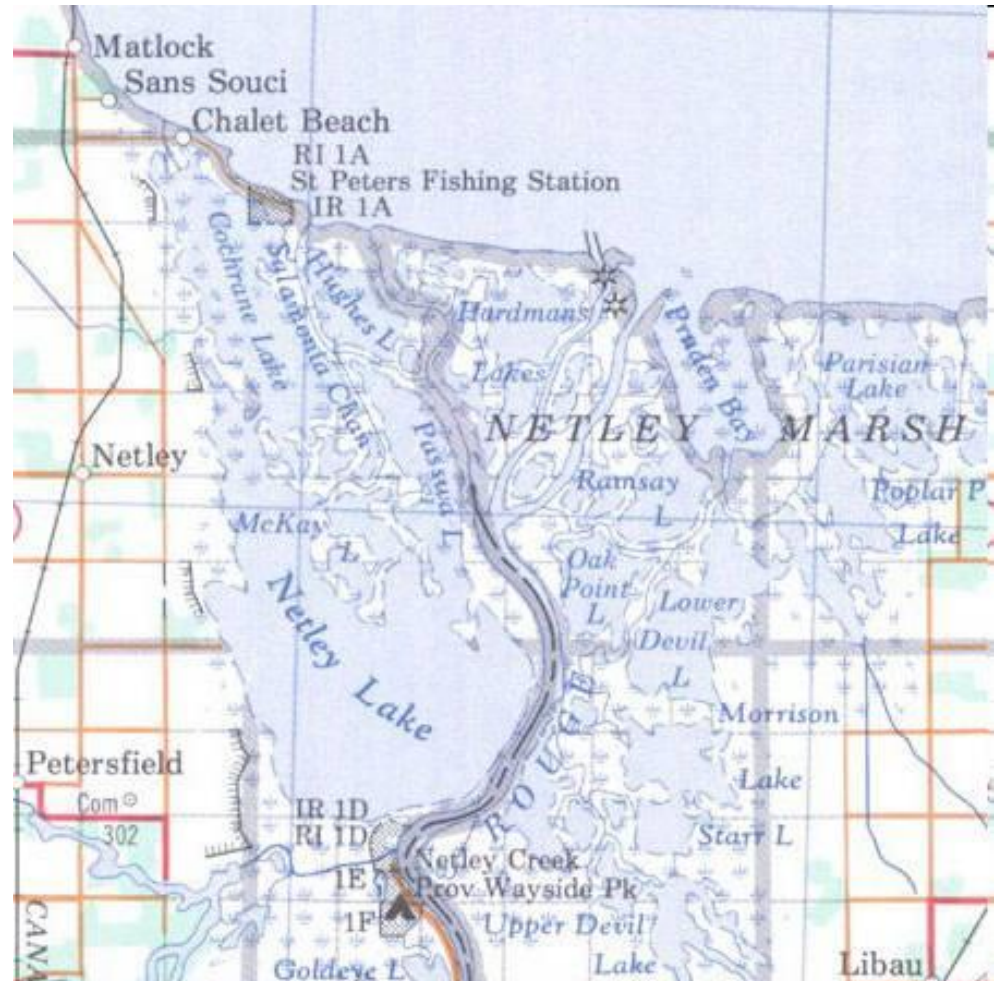


- *Italics* are reserved for hydrographic features (rivers, lakes, etc.)

Why ?

Underlining is **not** generally used

Why?



c. Form: bold or plain

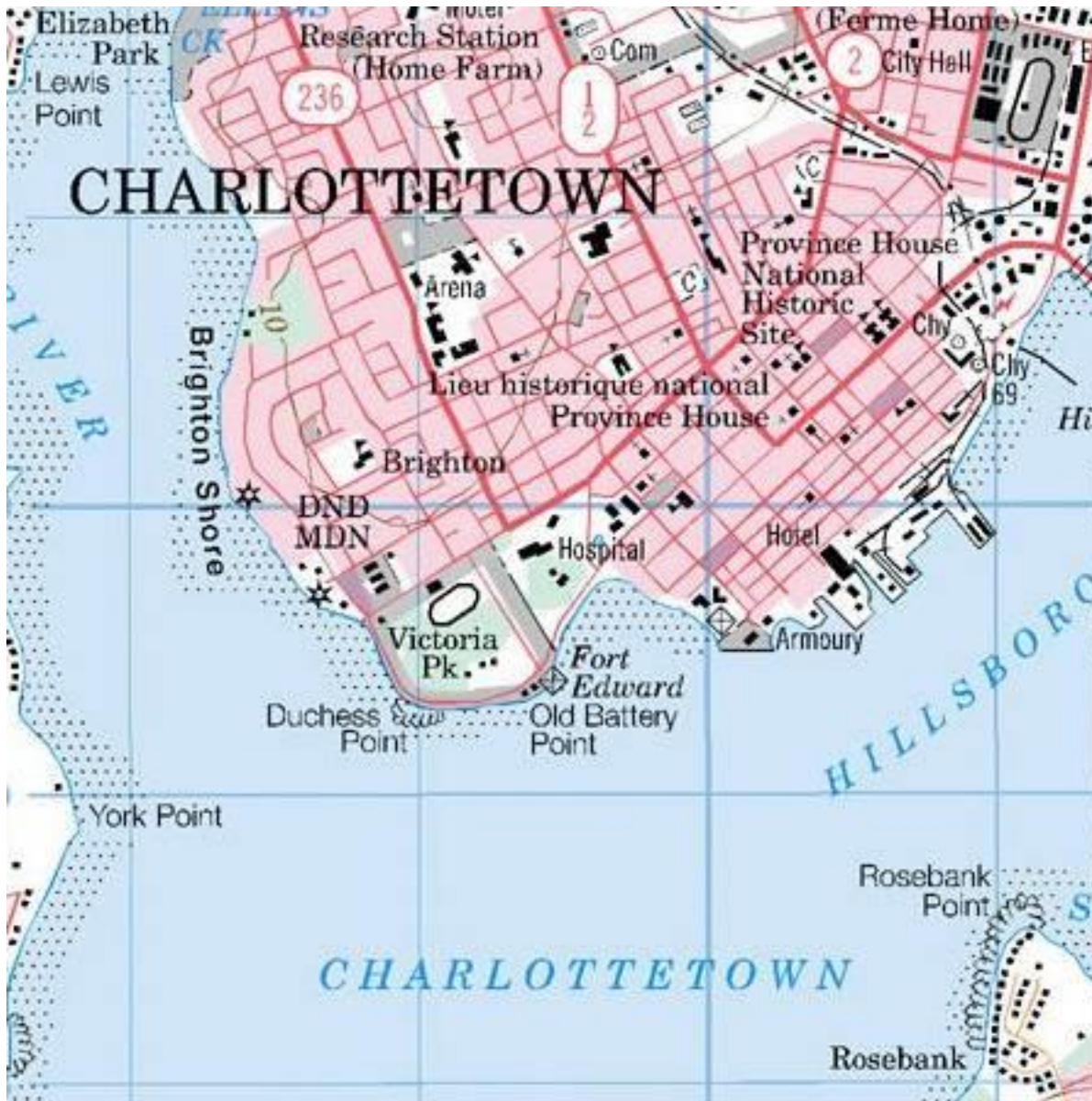
e.g. **Vanderhoof** Vanderhoof

Bold implies
prominence

-its more visible
... useful on dark
backgrounds



d. (Form) UPPER or Lower case



UPPER CASE
implies major
features

PRINCE GEORGE

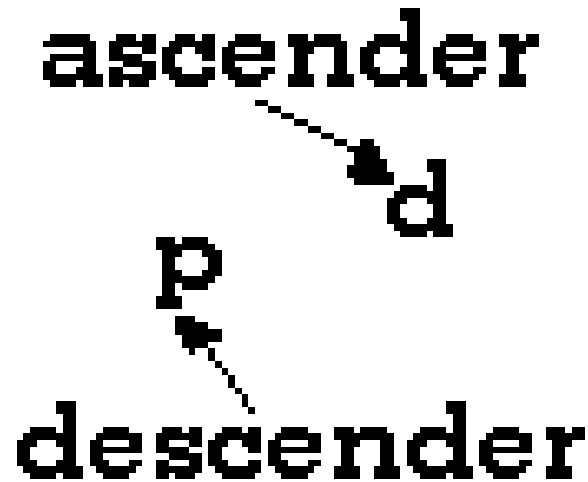
Prince George

Use UPPER case
sparingly - why ?

Why are map labels
and books mostly in
lower case ?

Use UPPER case sparingly - why ?

.. it is (13%) less readable than lower case due to the extra information provided by 'ascenders' and 'descenders'



The diagram shows the words 'ascender' and 'descender' in a monospaced, pixelated font. A dashed arrow points from the top of the letter 'd' in 'ascender' down to the letter 'p' in 'descender', illustrating the vertical distance between the two. Another dashed arrow points from the top of the letter 'p' in 'descender' down to the bottom of the word, illustrating the descender's extent below the baseline.

This is why we don't print books in UPPER Case and shouldn't use it in emails

(why are they called UPPER and lower 'case' ?)

why are they called UPPER and lower 'case' ?



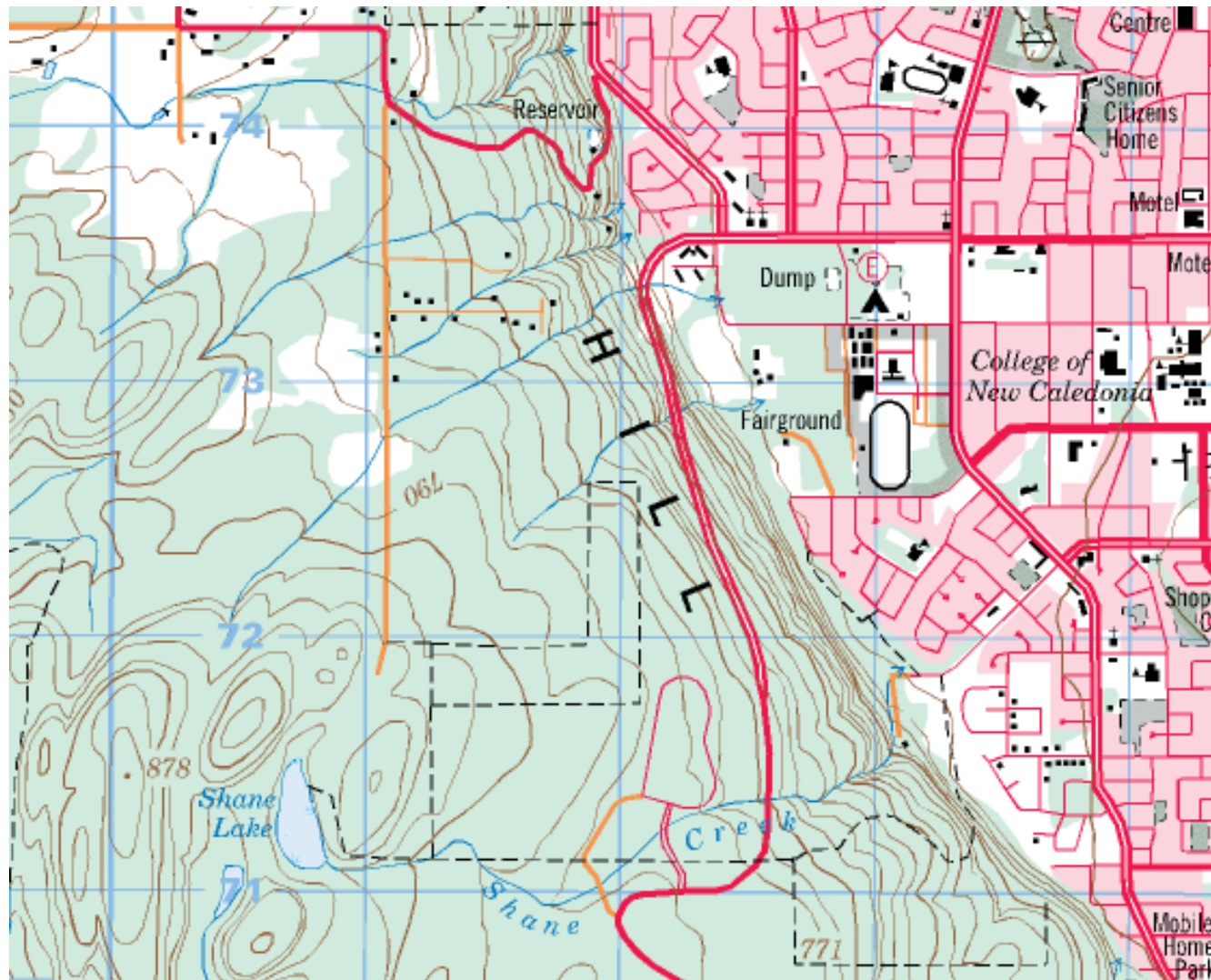
e. Colour (hue) : nominal / qualitative .. is used associatively

Blue: hydrography

Brown: contours

Black: standard

Red: important



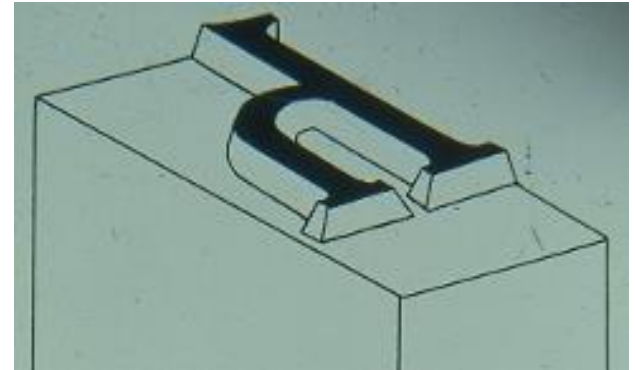
Quantitative Variables

a. **Size** : size denotes importance

It is commonly measured in 'points' (you knew this !)

72points = ~ 1" (inch)

minimum size = 6 points



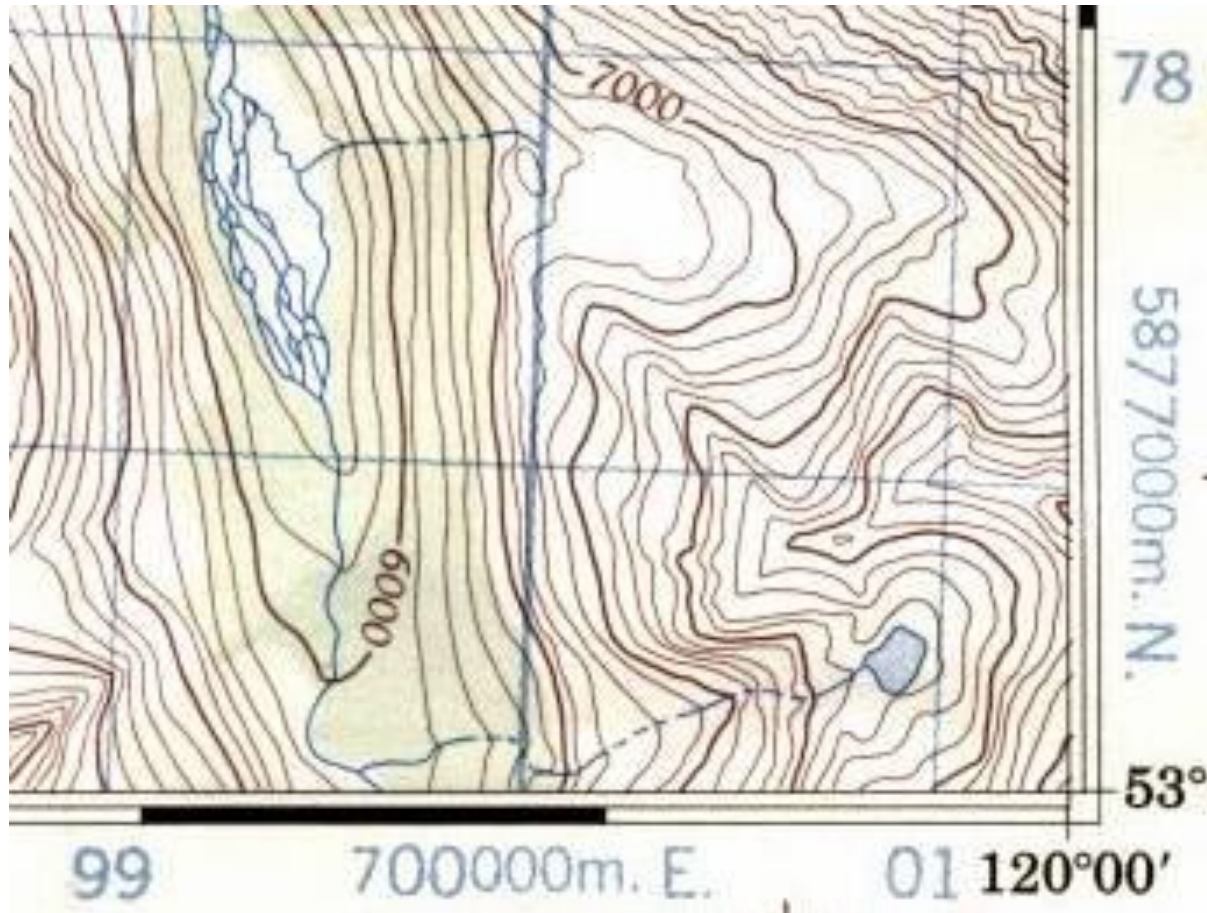
Larger size text is associated with larger / more important features (DUH!)

Large lettering should not be overpowering

Also: UPPER CASE and **Bold** imply some size/importance

Quantitative Visual Design Variables

b. Tone / chroma (colour): 'screened' lettering for background features (low saturation e.g. UTM digits)

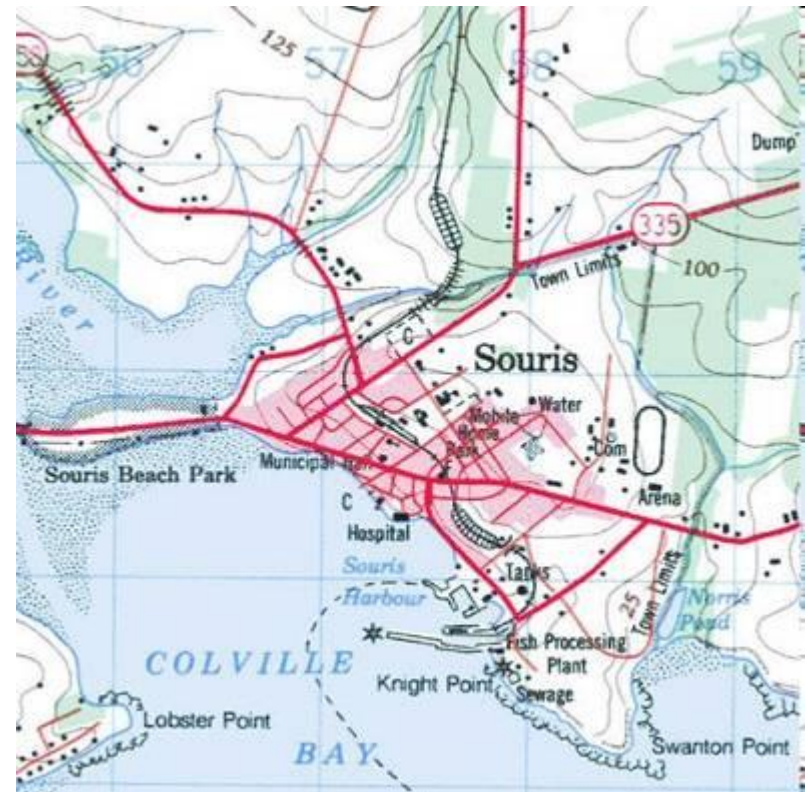


Choice of combinations of colour, fonts and form

Consistency: lettering within a class should be the same (e.g. all major rivers)

Contrast: should be higher between major classes than within a class type

Harmony: avoid many type faces (fonts); use different forms instead



2. General rules of Positioning

Positioning is an **extra** visual variable that symbols don't have:
- This can complicate digital mapping

General rules:

A> Minimize ambiguity as to what the name refers to

B> Choose minimum interference with other map elements:
lettering is movable - symbols are not

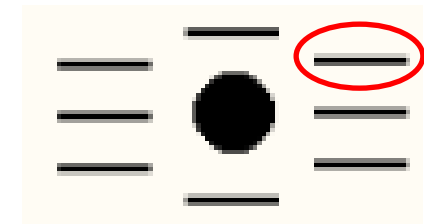
C> Horizontal lettering where possible, except:
..... if there is no space available (points) or
.....feature is not horizontal (areas/lines)

Points: ArcGIS default, top right label position

There are 8 possible positions for names.

Top right is best default but not always

- Based on manual cartography methods

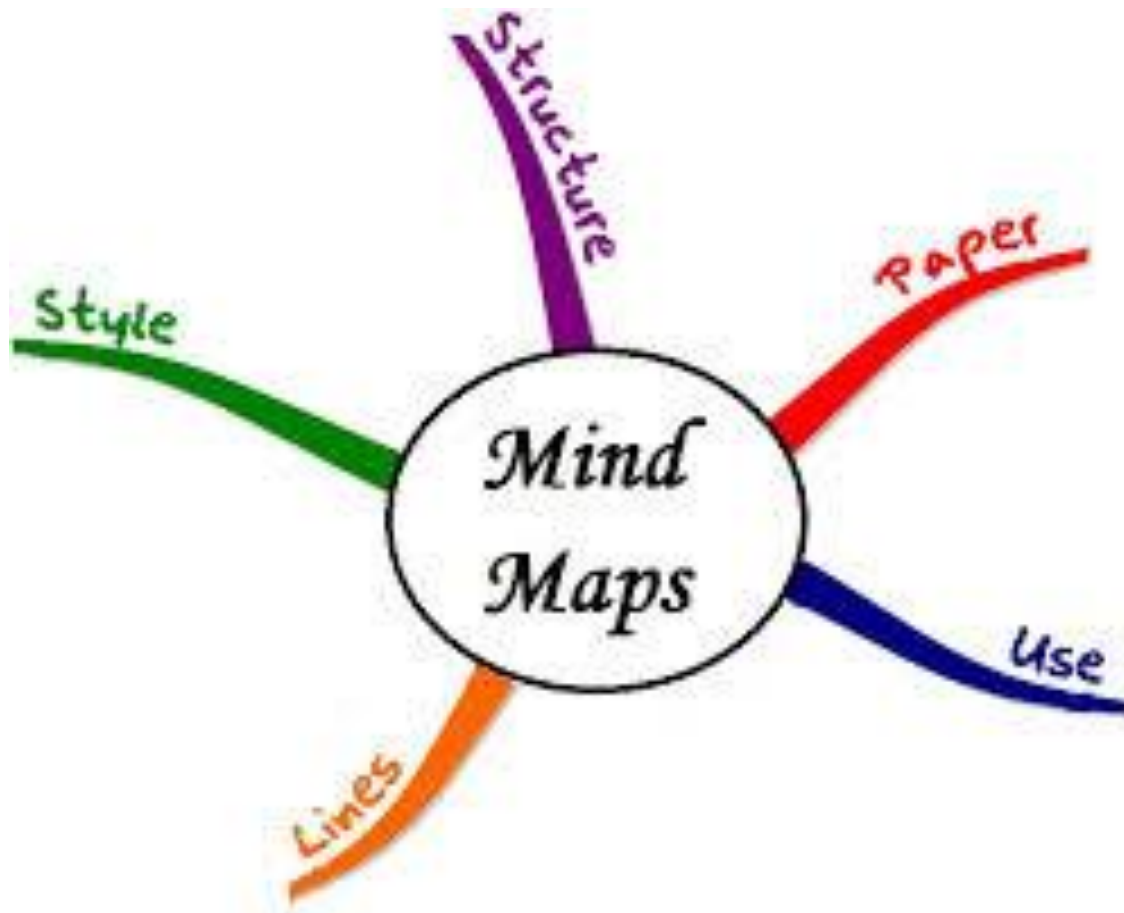


OOPS!

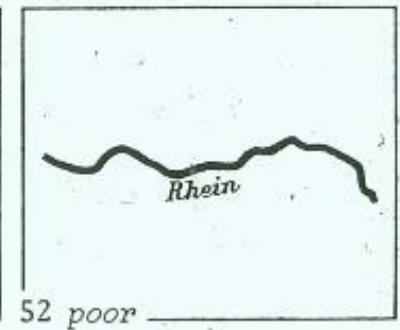
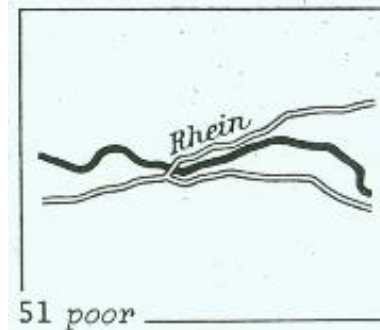
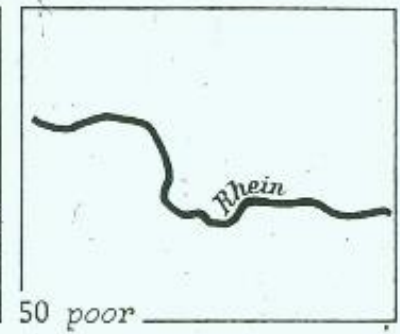
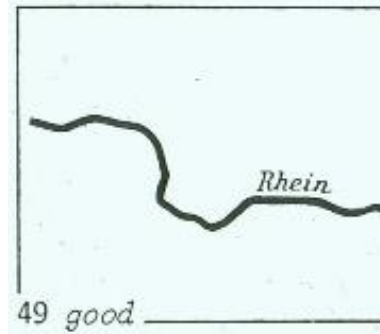
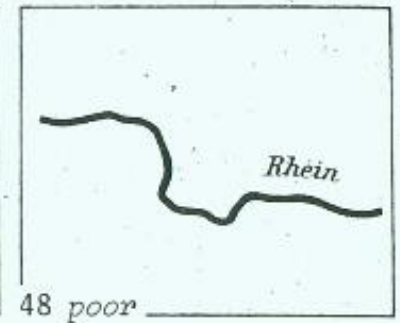
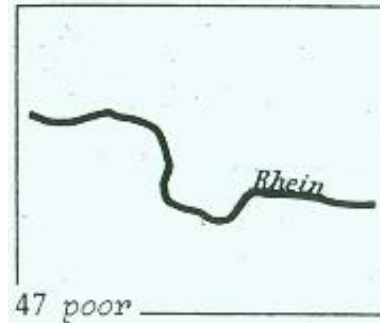
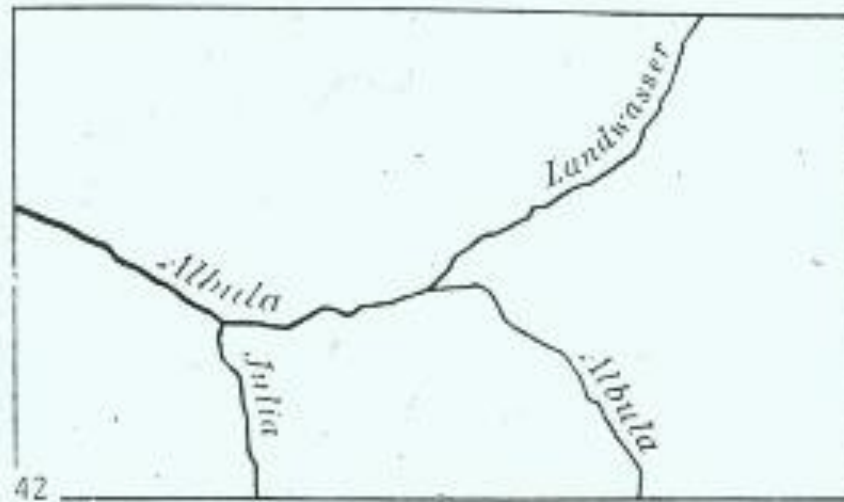


Line symbols labels

- A> Follow the orientation of the line (river, road, etc.)
- B> Find a relatively straight piece to label
- C> Label above the line, far enough away so descenders don't cross it

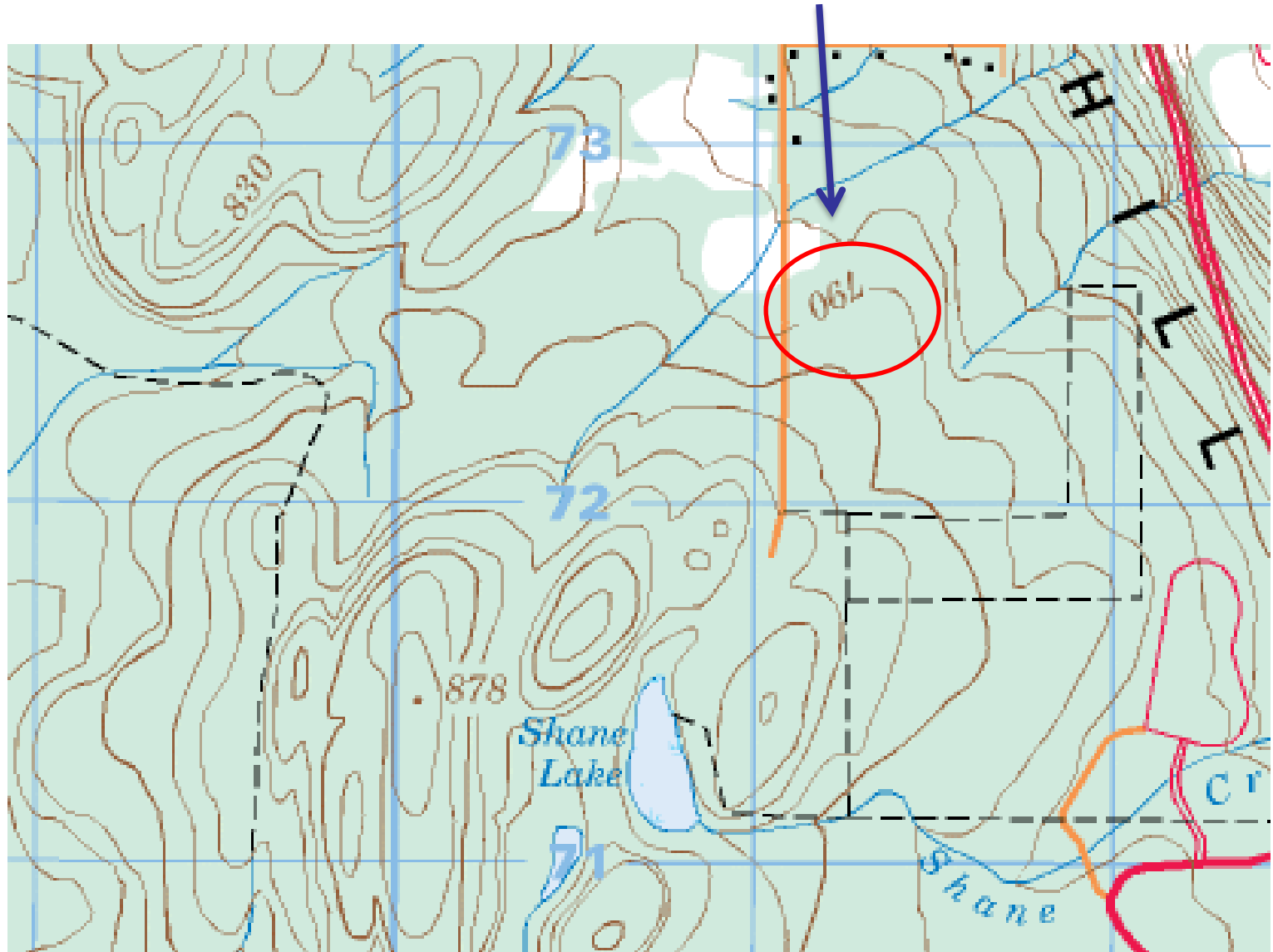


Line symbol labels



Examples from Eduard Imhof 'Swiss Guru'

Lettering should not be beyond the vertical ... the **only** exception (?) is contour lines, where lettering tops can 'point uphill' to show terrain form



.... And not 'just a bit off vertical' which looks like an accident

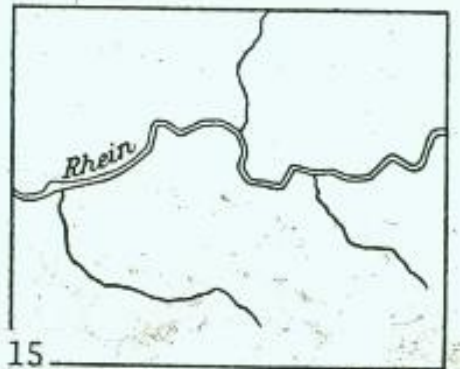
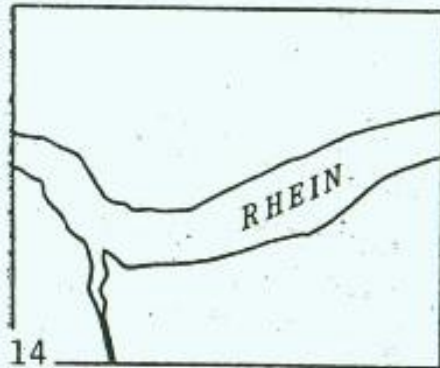
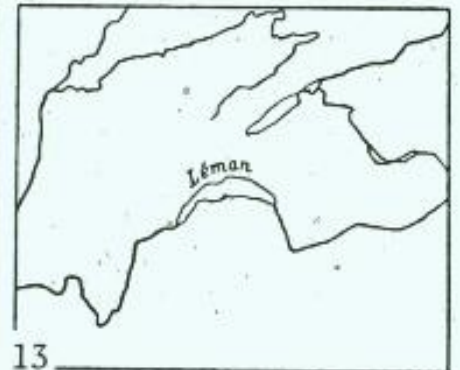
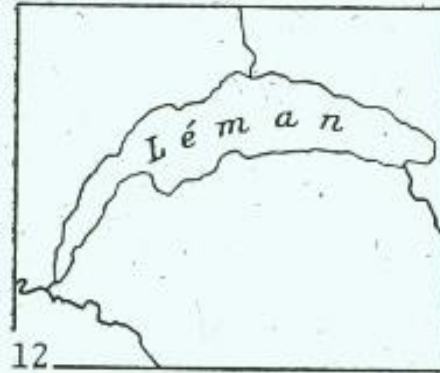
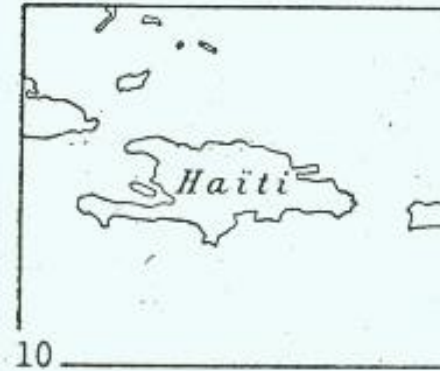
Area symbols

A> Lettering totally inside the area
a

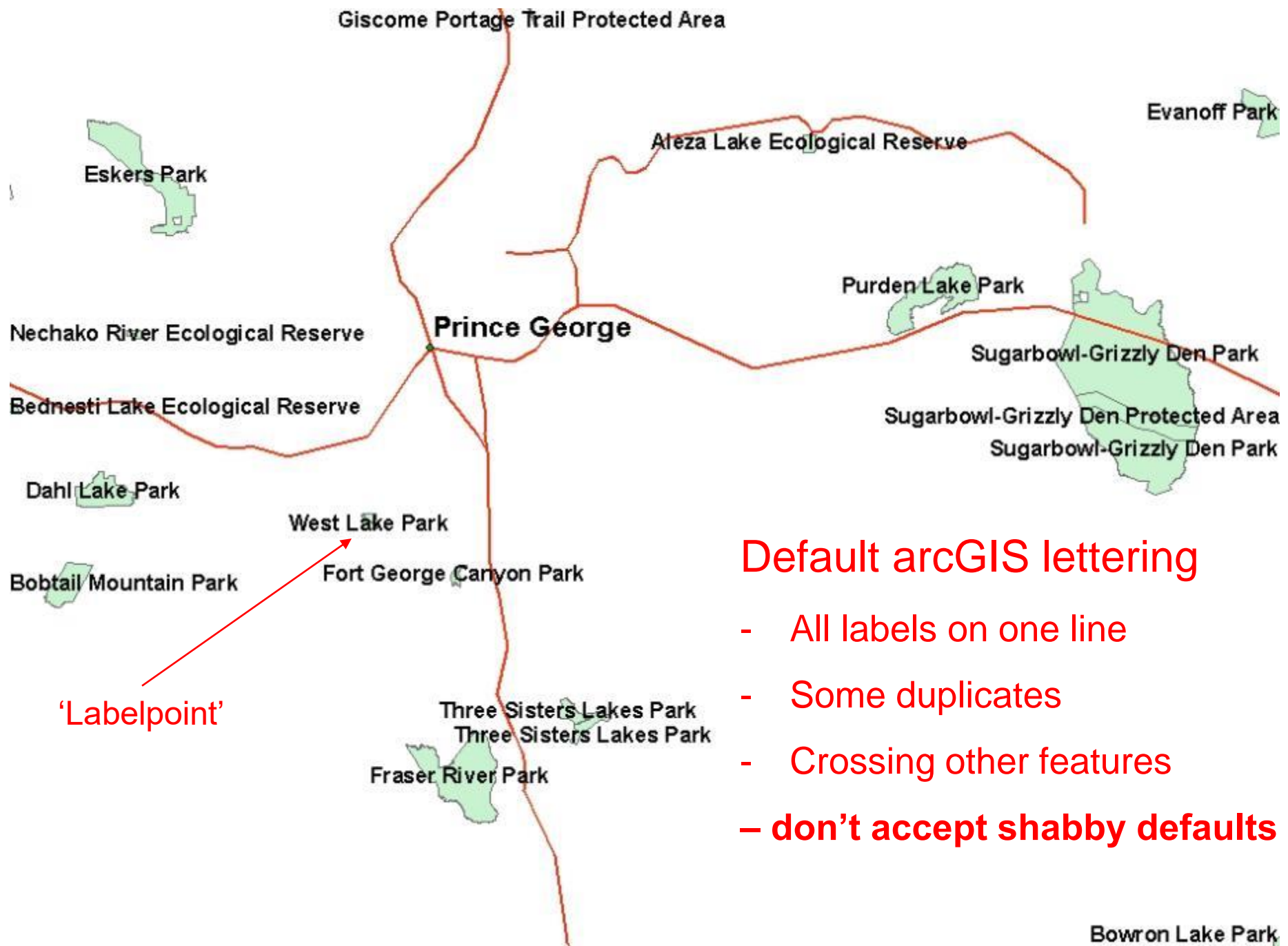
B> If too small, label as if a point

C> Orient lettering to fit area
shape, curve as needed

D> Space lettering if area is large,
evenly but not $> 4 \times$ letter height,
Serifs are useful in spaced names



Examples from Eduard Imhof



Default arcGIS lettering

- All labels on one line
- Some duplicates
- Crossing other features
- **don't accept shabby defaults**

Points

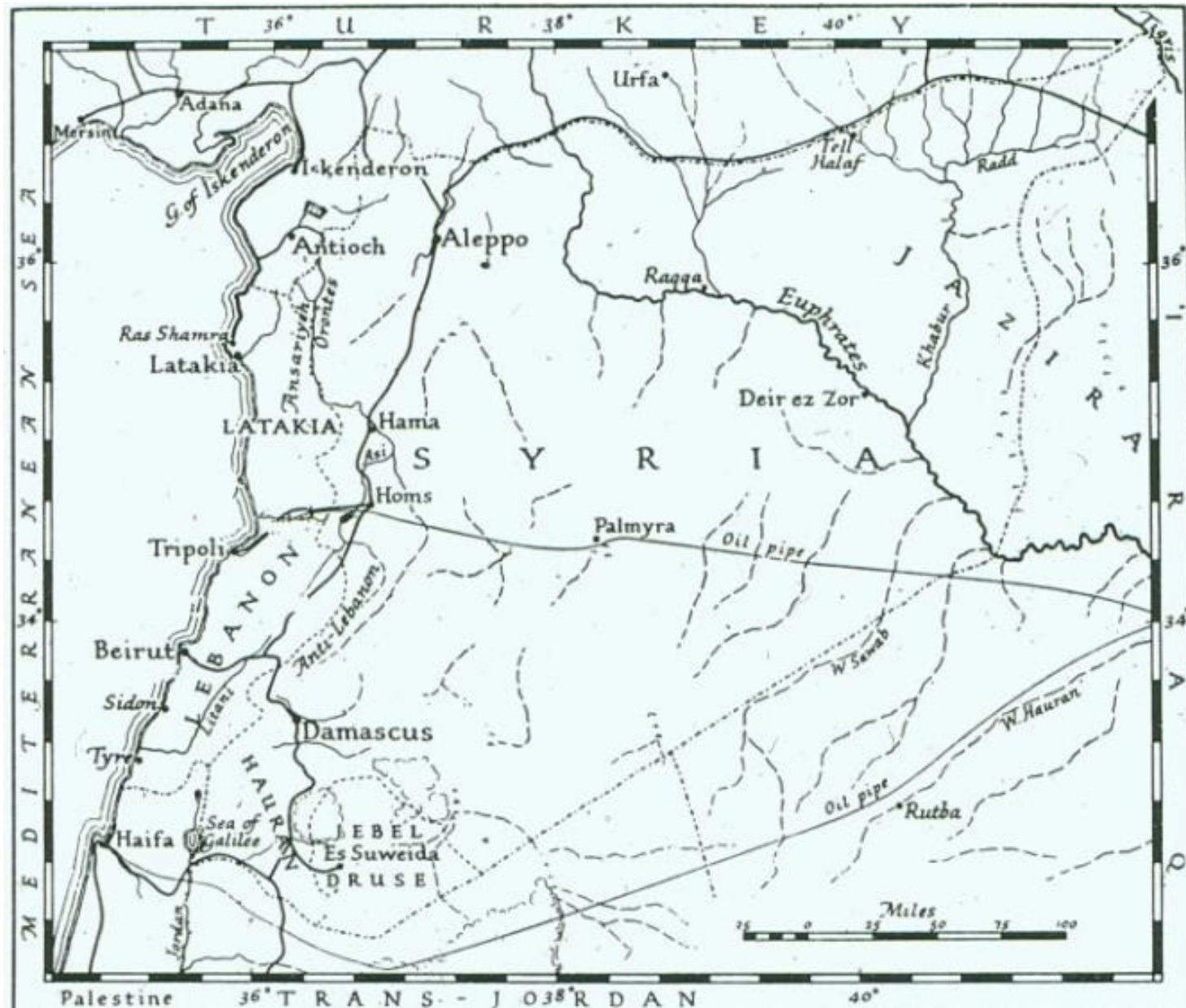
horizontal,
close to point

Lines

Along(above)

Areas

centred, with
spacing and
orientation



Good example of hand lettering

Mount Robson Provincial Park

Berg Lake Trail



LEGEND

Facilities

	Ranger Cabin		Emergency Services
	Hiking		Campground
	Viewing		Meals, Gasoline
	Parking		Wilderness Camping
	Picnic Area		Telephone
	Information		Shelter - day use only
	Washrooms		Mountain Biking

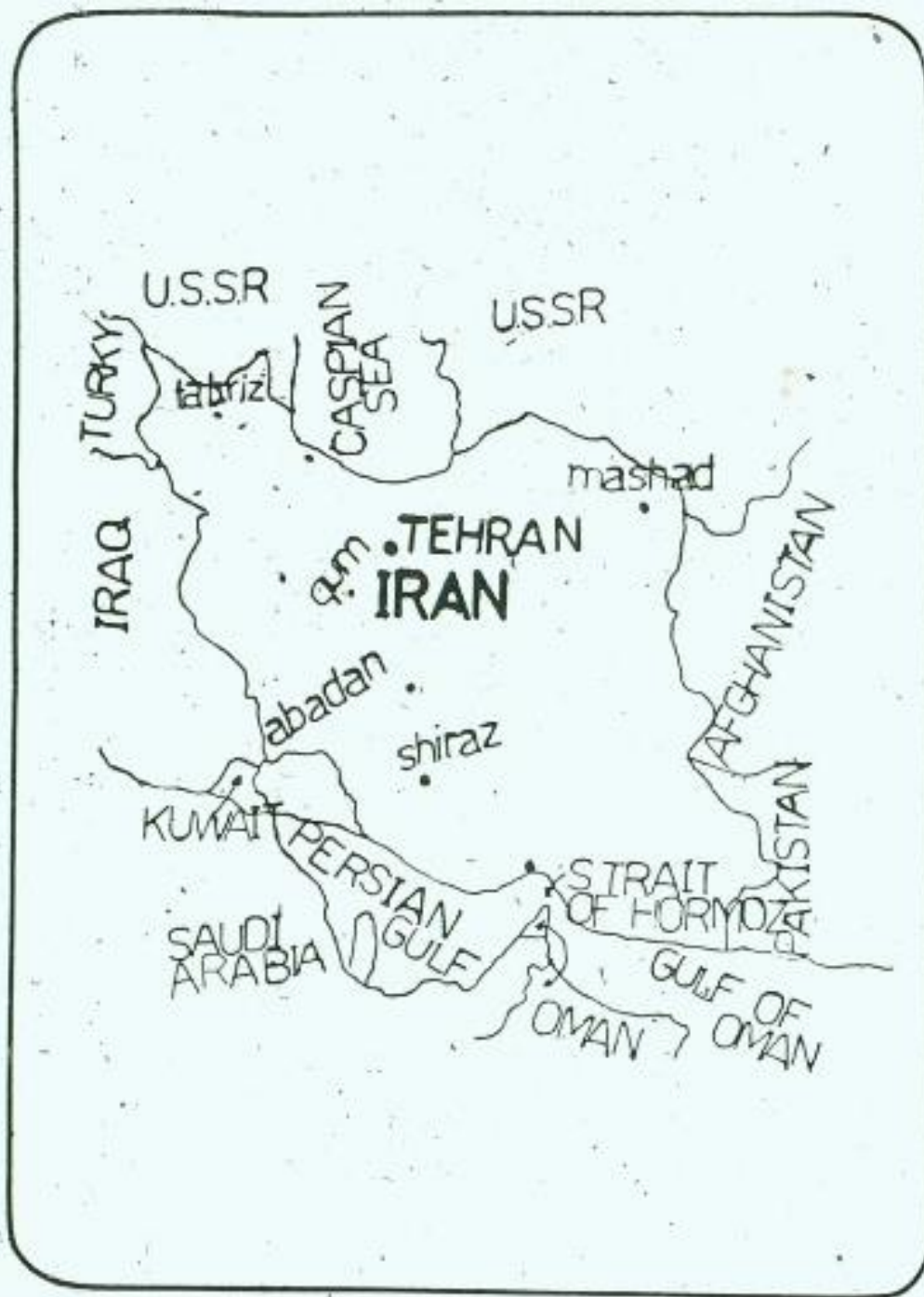
1978

(Iran hostage crisis)

What went wrong?

What went right ?

Murphy's Law



Part of a World map - following all the lettering rules



Lettering is like a hockey/soccer referee - if he doesn't make any mistakes, you don't notice him

ArcGIS lettering / labelling guide: (the main points are covered in the lab)

<https://pro.arcgis.com/en/pro-app/latest/help/mapping/text/labeling-basics.htm>

Toponymy: the study of placenames

English place name endings and meaning

by	village, town
dal /dale	meadow / valley
ford	ford
hurst	wooded hill
knock	hill (gaelic)
minster	large church
pool	harbour
shaw	wood
stead	place
ster	farm

These can tell us about the local geography ... we have similar in Canada, the indigenous names

Indigenous place name examples

Lheidli Confluence

Nagwentled Landslides

Nanaimo Big strong tribe

Kakwa Porcupines

Poboktan Burrowing Owl

Winnipeg Muddy waters

Canada (Kanata) village - settlement

Place name types in Canada

Listed based on merit: (my list - very unofficial)

1. Indigenous names based on geography / people
2. Early settlers or features or explorers
3. Home places elsewhere
4. Friends / sponsors / saints
5. Minor royal family members and explorers' cats

Canada's longest placename:

Pekwachnamaykoskwaskwaypinwanik Lake



"where the wild trout are caught by fishing with hooks."

Wales: longest placename in Europe 2nd longest in the world

Also known as Llanfair PG



Translation: "Mary's house in the hollow of the white hazel rapid whirlpool at the church of the red cave." (19th century 'fake name')

World's longest placename



Translates as: "The summit where Tamatea, the man with the big knees, the climber of mountains, the land-swallower who travelled about, played his [nose flute](#) to his loved one

One of the equal shortest: Å, Lofotens, Norway

