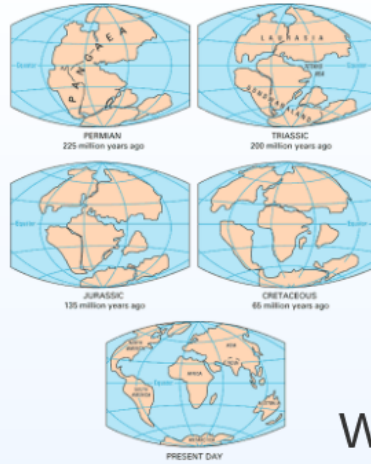




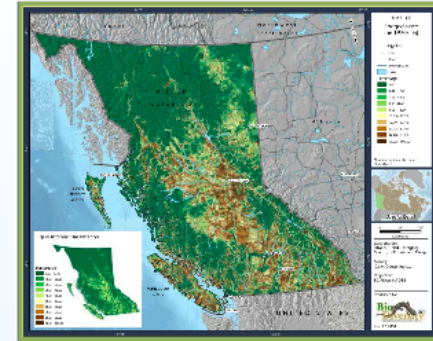
## What

- a model ... representation ... abstraction
- shows features on Earth's surface
- typically 2D (flat, planar)
- to scale?



## Why

- USES (not a complete list by any means)
- where ... navigation
  - size & boundaries
  - patterns, distribution & relationships
  - abundance (trees inventory, population)



## Components

- Mappped Area itself
- **mapline** bounds the mapped area
  - **graticule** = grid of lat./long.
  - may have insets

- Map Surround (map collar)
- Typographical info:
    - title
    - publisher, year
    - datum & projection

- Other Elements:
- legend
  - **SCALE**
  - north (arrow and/or graticule)
  - border (keep eyes on map)

# Map Basics



## Forms & Types

- Different Media (Forms) of Maps
- mental
  - paper & digital
  - orthophoto
- Two Broad Categories (Types) of Maps
- general reference
  - **thematic** (any special purpose)
- thematic
- demographic
  - topographic



## iPad & Maps



- Topographic Maps  
Canada
- very nice (free app)
  - free maps for download
  - "Take Canada" 1:50,000
  - detail varies with scale



- Topo Maps
- nice app (\$)
  - uses "original mapsheets"
  - details not scalable
  - easy to manage downloads



- PDF Maps
- great app (free)
  - need to download maps
  - uses geo-referenced PDFs
  - we can make our own!



- GPS Kit
- great for navigation (\$)
  - need to cache
  - but variety of map types



- National News (Canada)
- very nice app (free)
  - good for driving
  - all of Canada ... at once



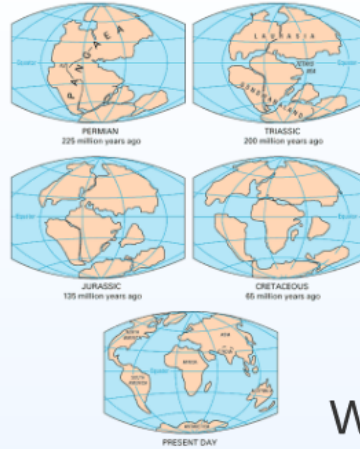
## Map Systems





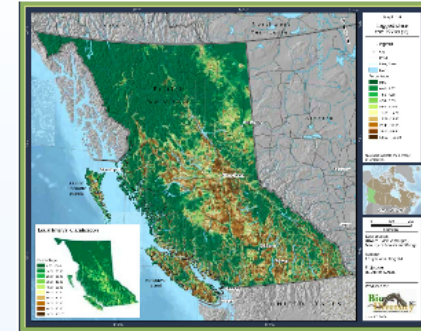
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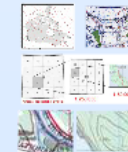
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## Map Systems







What

# what

- a **model** ... representation ... abstraction  
**shows features on Earth's surface**  
typically 2D (**flat**, planar)  
to scale?





**PERMIAN**  
225 million years ago



**TRIASSIC**  
200 million years ago



**JURASSIC**  
135 million years ago



**CRETACEOUS**  
65 million years ago



**PRESENT DAY**

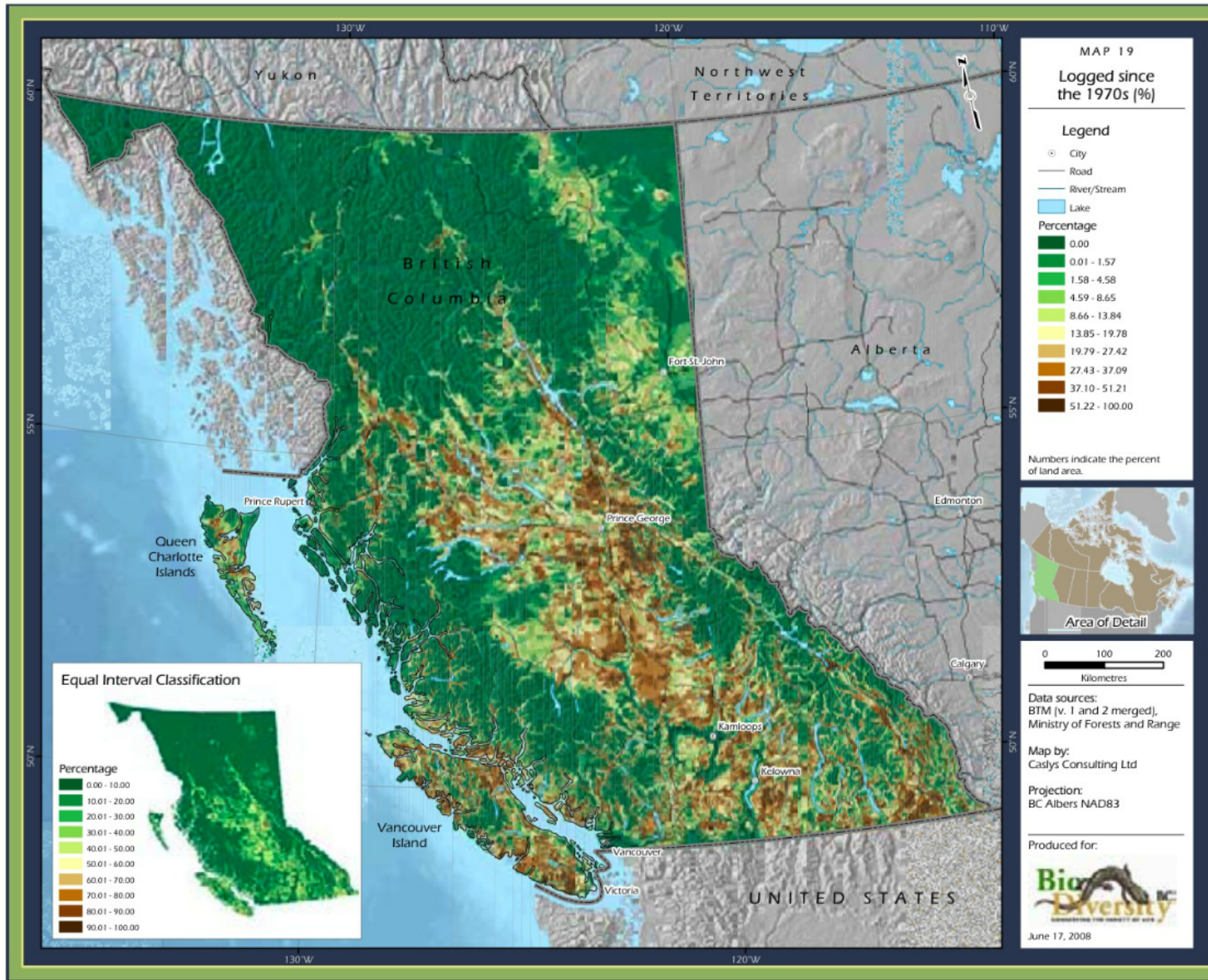
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# Components

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- Typographical info:

- **Title**
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- Other Elements:

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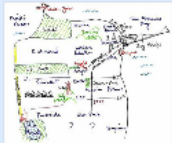


# Forms & Types

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## Different Media (Forms) of Maps

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<https://www.google.ca/maps/@49.163263,-124.0363835,12z>



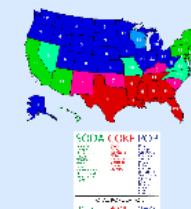
## Two Broad Categories (Types) of Maps

- general reference

thematic

any special purpose

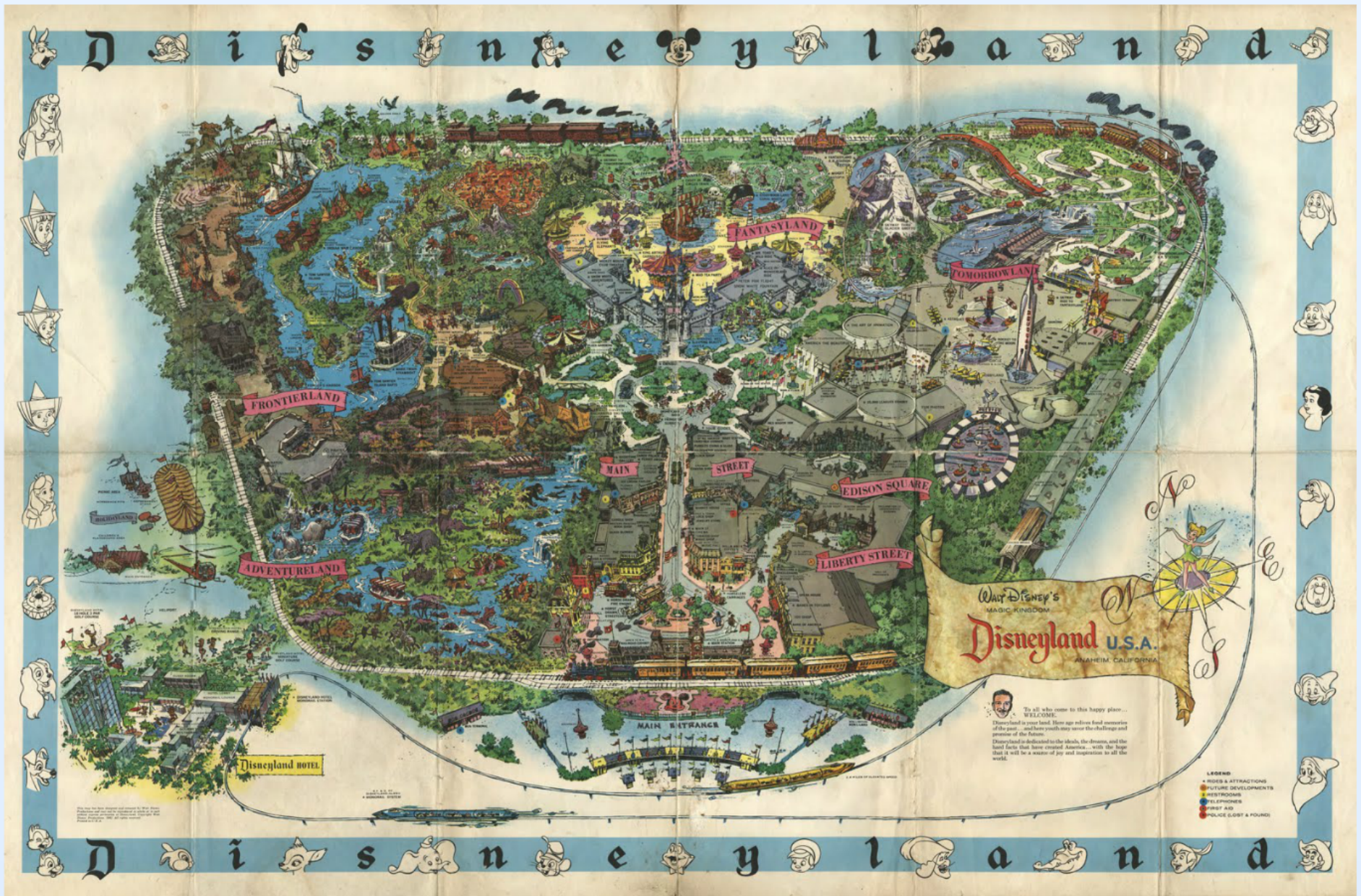
planimetric



topographic



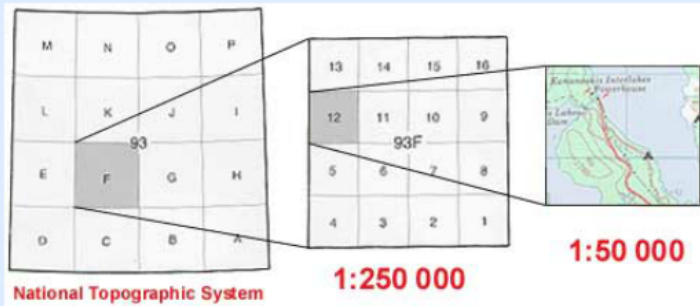
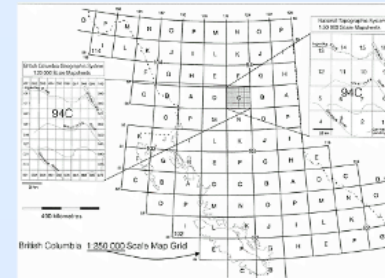
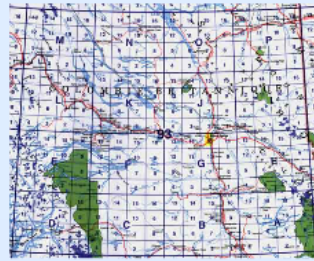
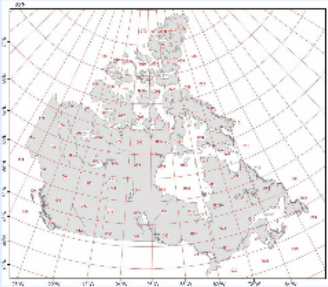




# Map Systems



# Map Systems



**British Columbia Geographic System**

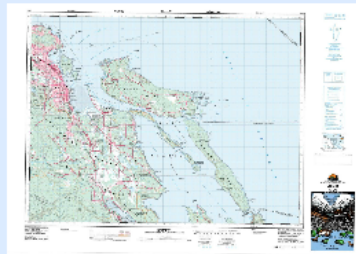
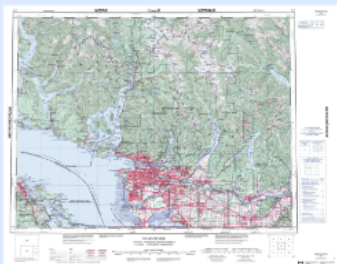
The BCGS is a geographic system in which the coverage in meters and seconds of longitude is double the coverage in meters and seconds of latitude for sheets of all scales. The smallest scale in the system is 1:250,000 derived from a breakdown of the NTS 1:250,000 sheet into 100 parts. A map matrix consists of the opposite NTS 1:250,000 map number followed by the number of each successive breakdown as illustrated in table 1 and figure 4 and 5.

Scale	Map Number	Longitude	Latitude
1:250,000	093F025	12"	6"
1:125,000	093F0251	6"	3"
1:50,000	093F02512	3"	1"30"
1:25,000	093F025122	1"30"	46"
1:12,500	093F0251224	45"	22.5"

Table 1

093F025 - 1:250,000					093F025 - 1:250,000														
09	3	F	0	2	5	1	2	3	4	09	3	F	0	2	5	1	2	3	4

Figure 4



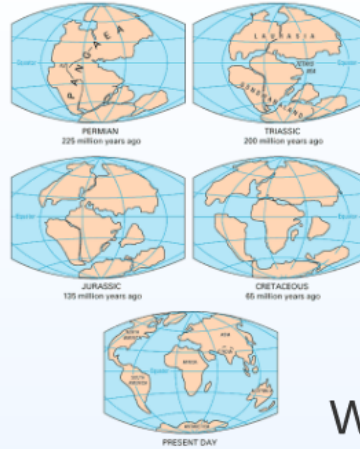
<http://www.canadamapstore.com/>

<http://geobc.gov.bc.ca/base-mapping/imagery/topographic.html>



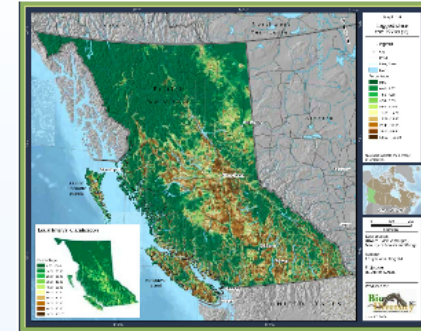
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  - **Thematic**
    - any special purpose
- Examples include: planimetric, topographic, and various thematic maps.



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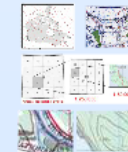
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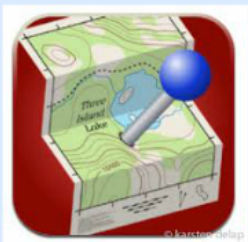
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