



UNIVERSITÀ
DEGLI STUDI
DI BERGAMO

Dipartimento
di Lingue, Letterature
e Culture Straniere

Academy of Research Methodologies

Geourbanistica

Planning and Management of
Tourism Systems

Text Sciences and Culture
Enhancement in the Digital Age

Dott. Umberto Fede

Dott. Edmondo Pietrangeli

Università degli Studi di Bergamo,
sede di Via Salvecchio, 19

Modulo Mapping and Drone

Lesson 3: How to design a map: goal, target and criteria

What is a MAP?

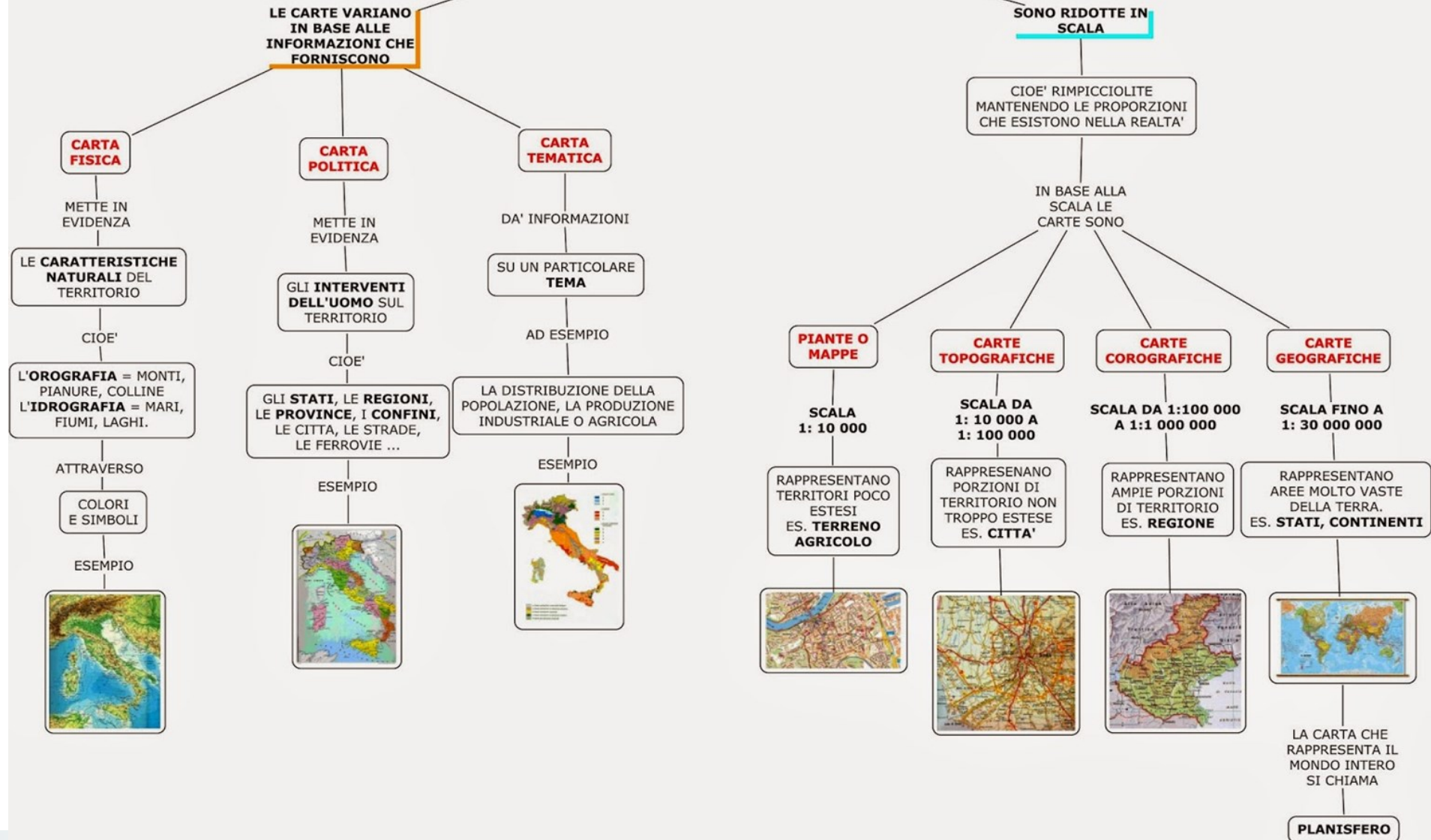
How to design it?



UNIVERSITÀ
DEGLI STUDI
DI BERGAMO

Dipartimento
di Lingue, Letterature
e Culture Straniere

TIPOLOGIE DI CARTE GEOGRAFICHE

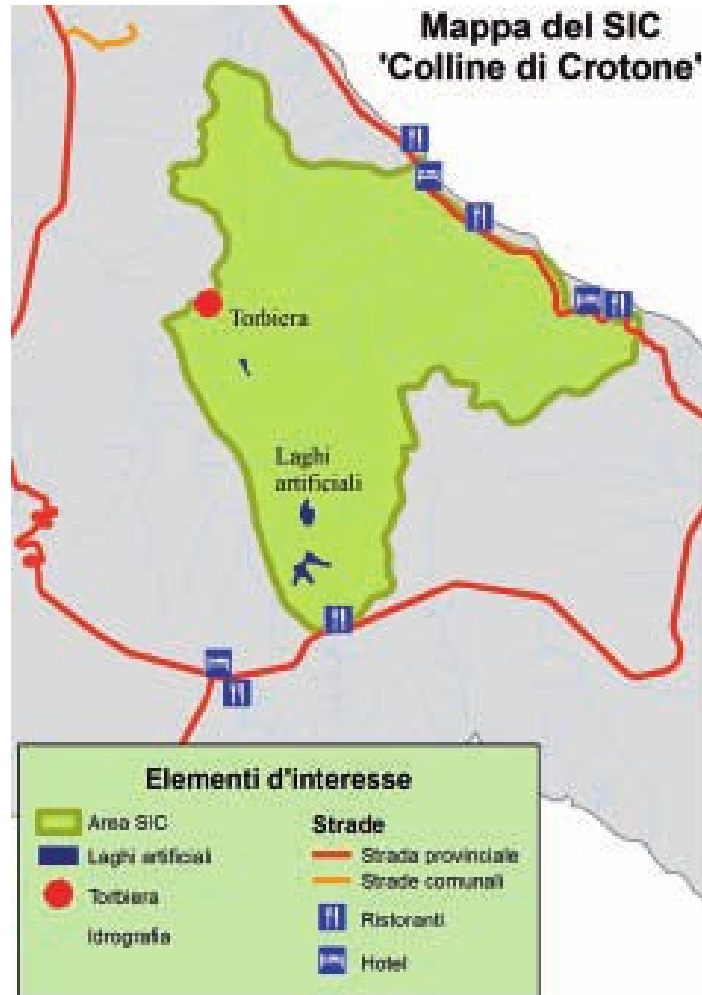


- What information should you enter?
- What is the target of the cartography?
- Is the content of the map consistent with the written text (if it accompanies a text)?
- What size should the printed output have?
- What media will be used for distribution of the map? (pc, print: book, article, GPS....)
- What are the timeframes and budget constraints?

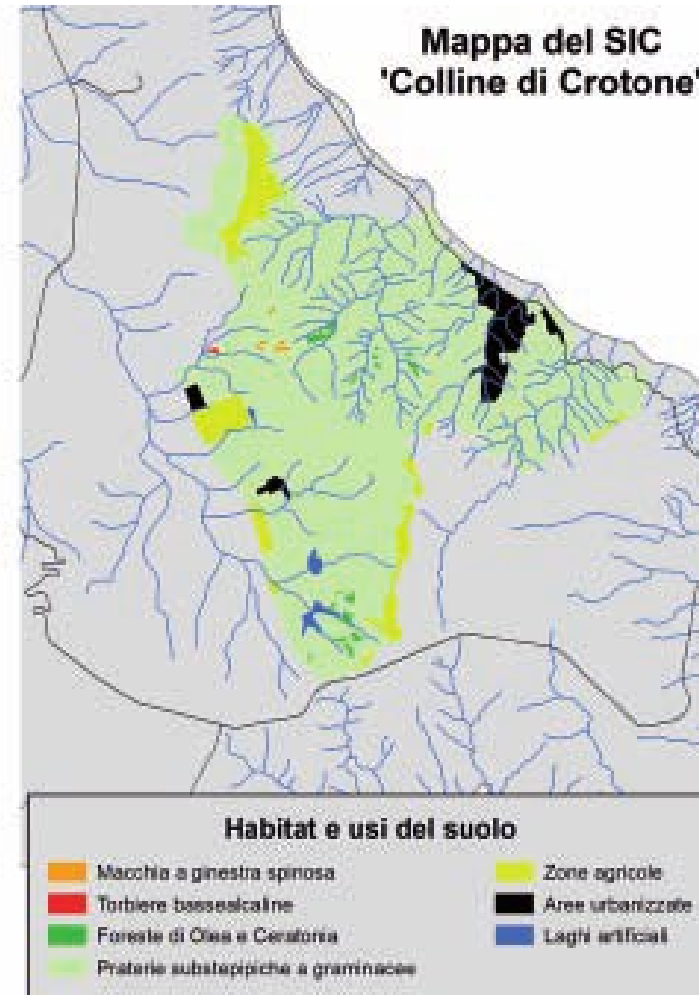


It depends on the target

tourists



experts

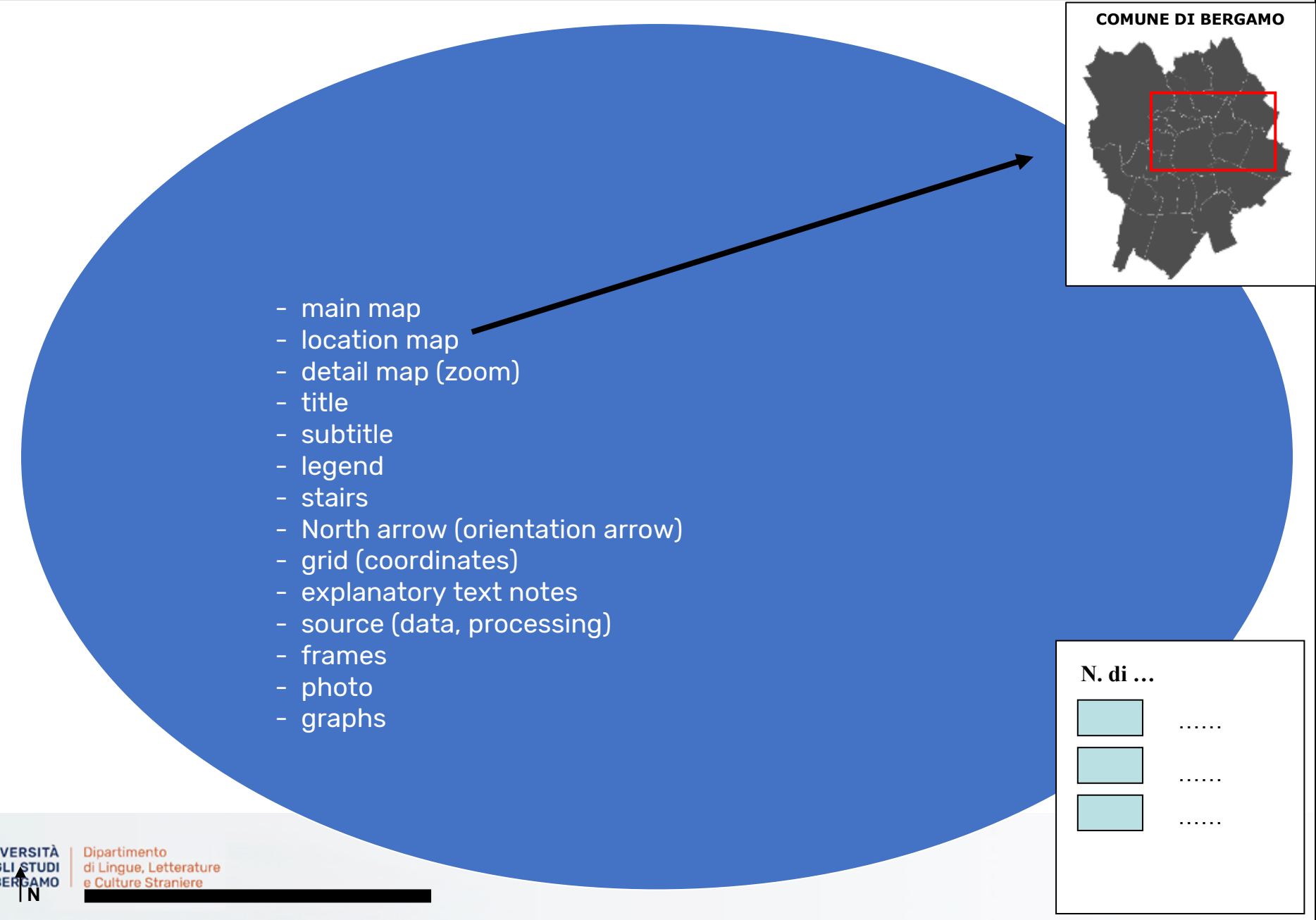


The elements of a map

- main map
- location map
- detail map (zoom)
- title
- subtitle
- legend
- stairs
- North arrow (orientation arrow)
- grid (coordinates)
- explanatory text notes
- source (data, processing)
- frames
- photo
- graphs



Title of the map



legenda

anthropic elements
(towns, cities...)

CARTA FISICA

Type of map

scale



Administrative boundaries

Geographical elements
(rivers, lakes,
mountains...)



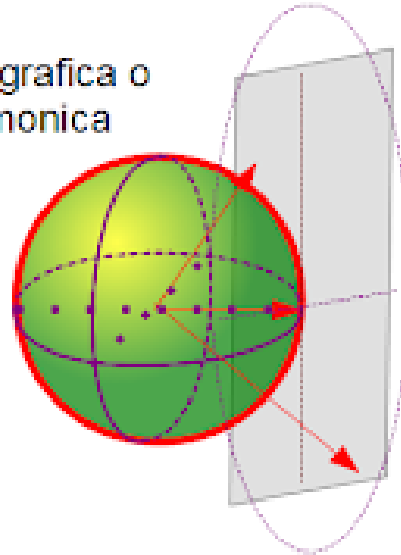
Graphic aspects

- Projection
- Visual hierarchy
- Balancing white spaces (empty)
- Alignment of elements
- Character
- Color

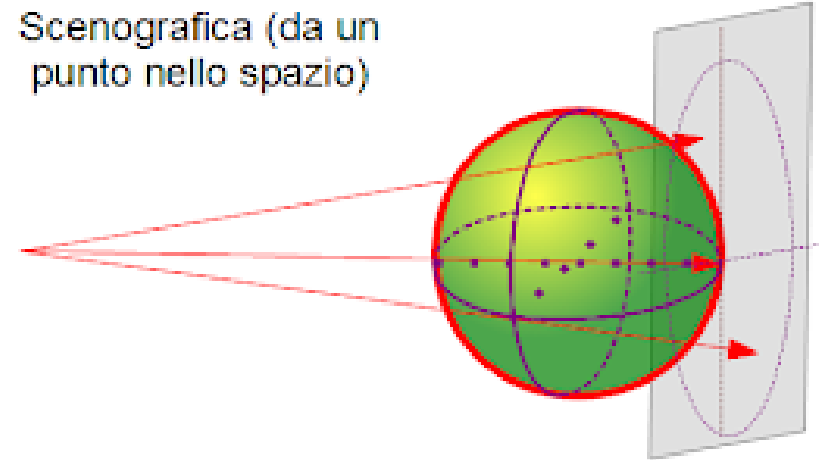


Projection

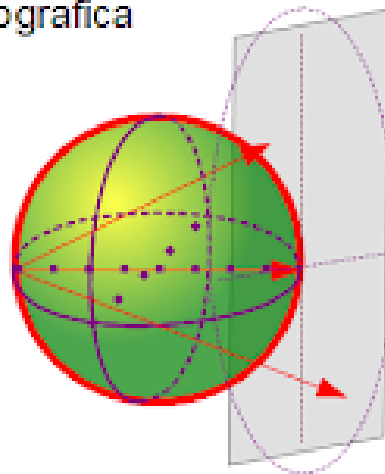
Centrografica o
gnomonica



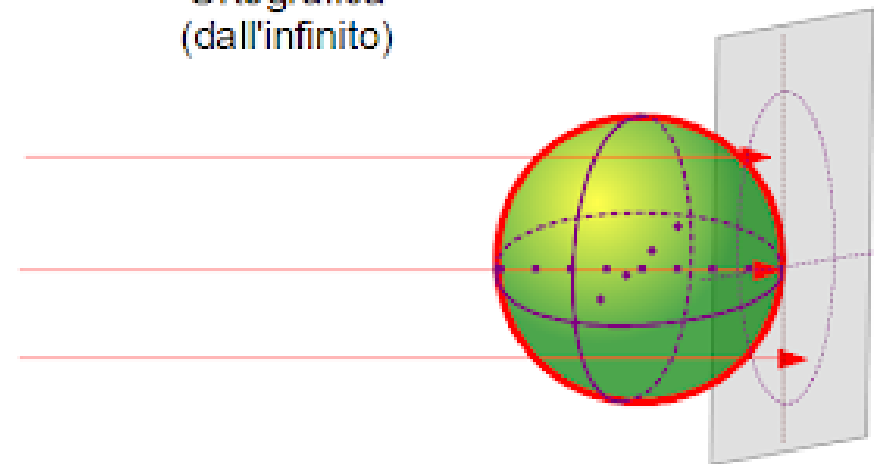
Scenografica (da un
punto nello spazio)



Stereografica



Ortografica
(dall'infinito)

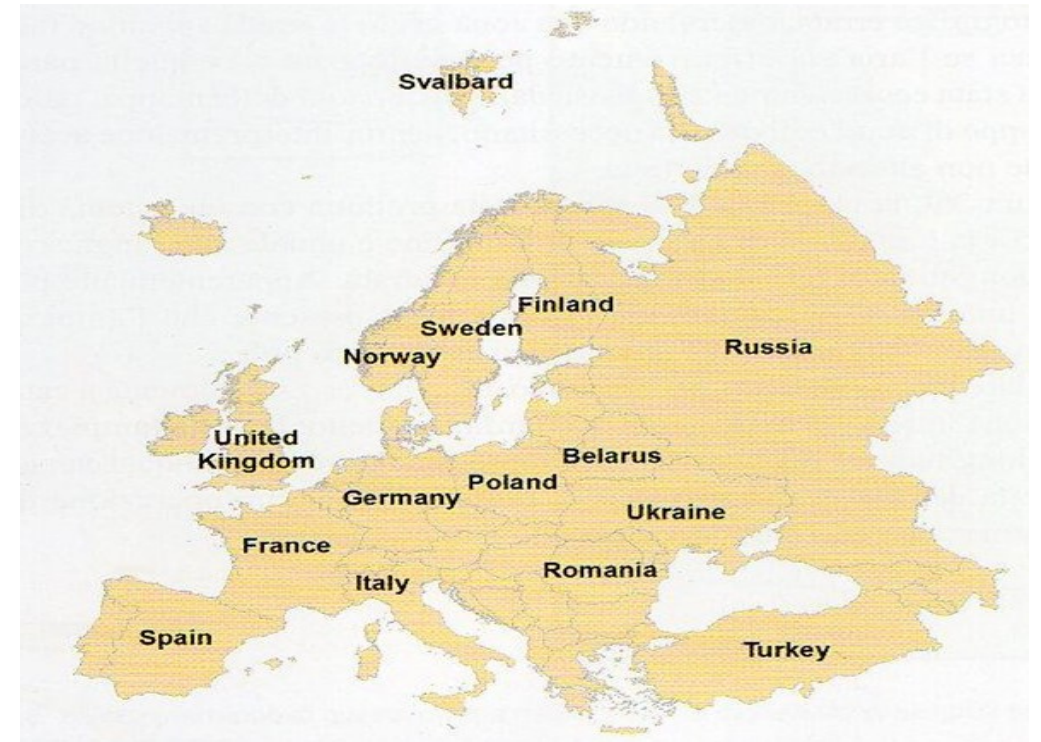


Projection

Geographic projection



System of projected coordinates



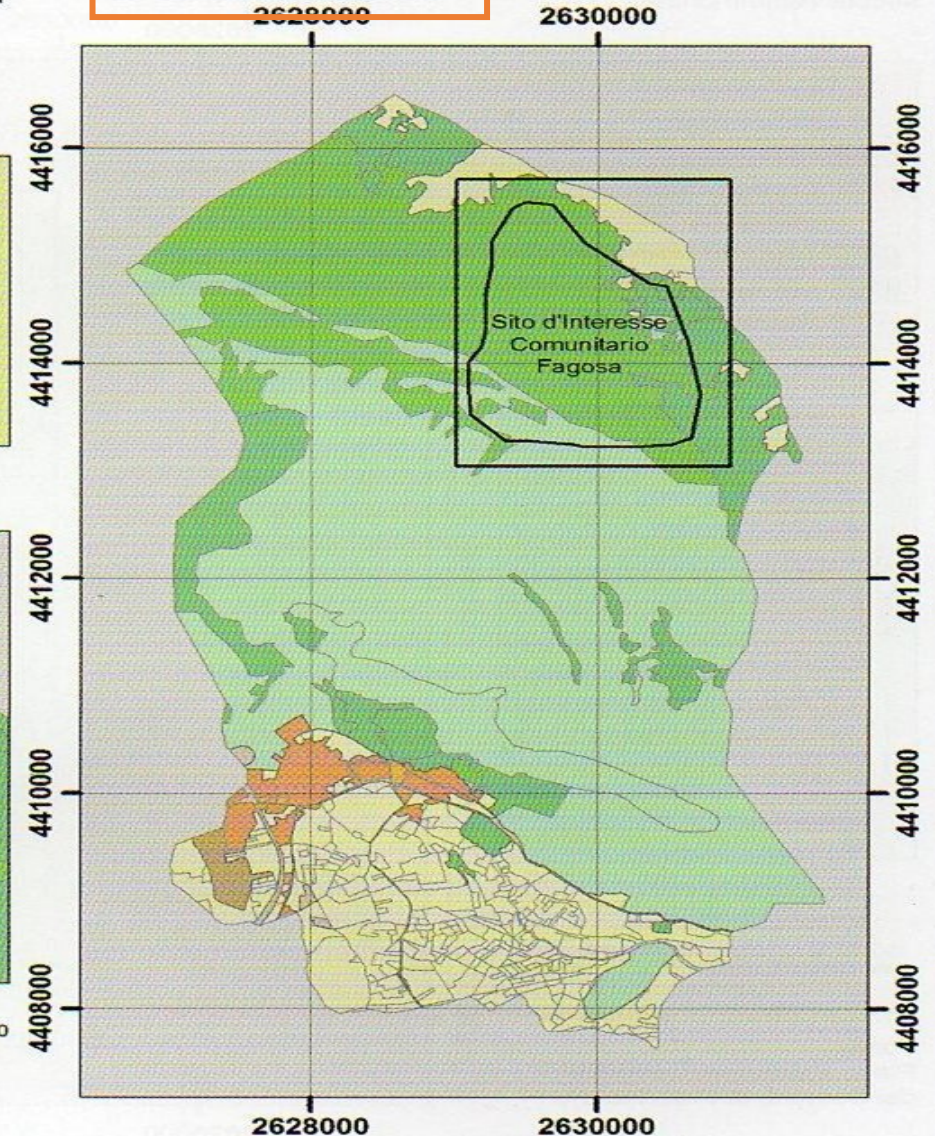
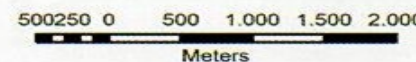
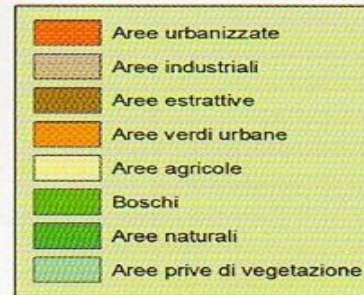
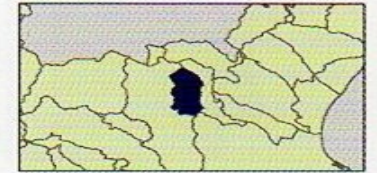
Visual hierarchy

The hierarchy is established by the layout of the table, the position on the page (or on the screen) and the size of the elements

Carta dell'uso del suolo del Comune di Frascineto

Localizzazione area:
Provincia di Cosenza
sette settore settentrionale

Fonte:
Piano Strutturale Comunale
del Comune di Frascineto



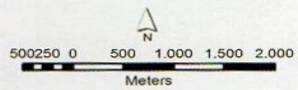
UNIVERSITÀ
DEGLI STUDI
DI BERGAMO

Dipartimento
di Lingue, Letterature
e Culture Straniere

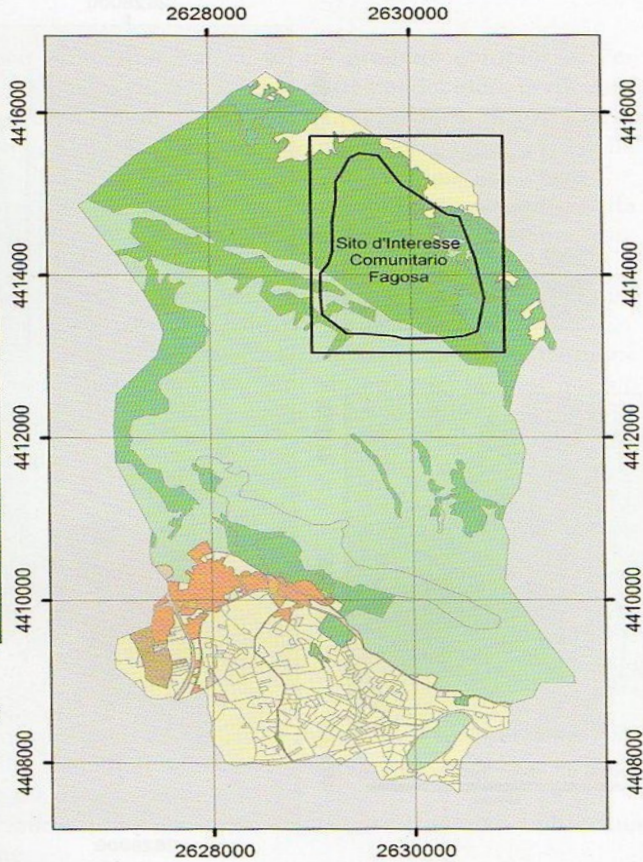


Localizzazione area:
Provincia di Cosenza
settore settentrionale

Carta dell'uso del suolo del Comune di Frascineto

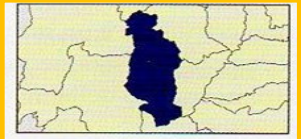


Fonte:
Piano Strutturale Comunale
del Comune di Frascineto

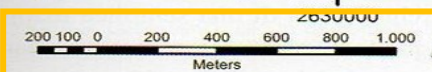
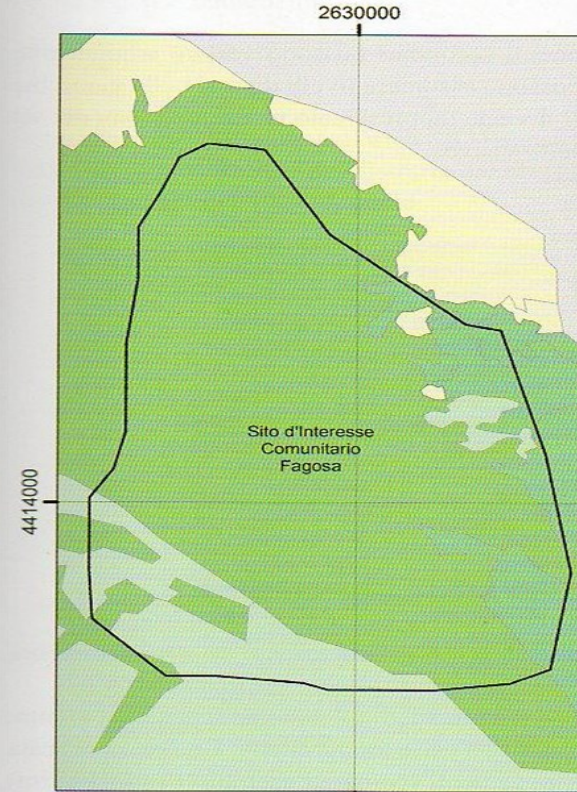


land use detected in the municipal
territory

Carta dei tipi forestali SIC località Fagosa



Localizzazione area:
Sito d'interesse comunitario
località Fagosa



Fonte:
Piano Strutturale Comunale
del Comune di Frascineto

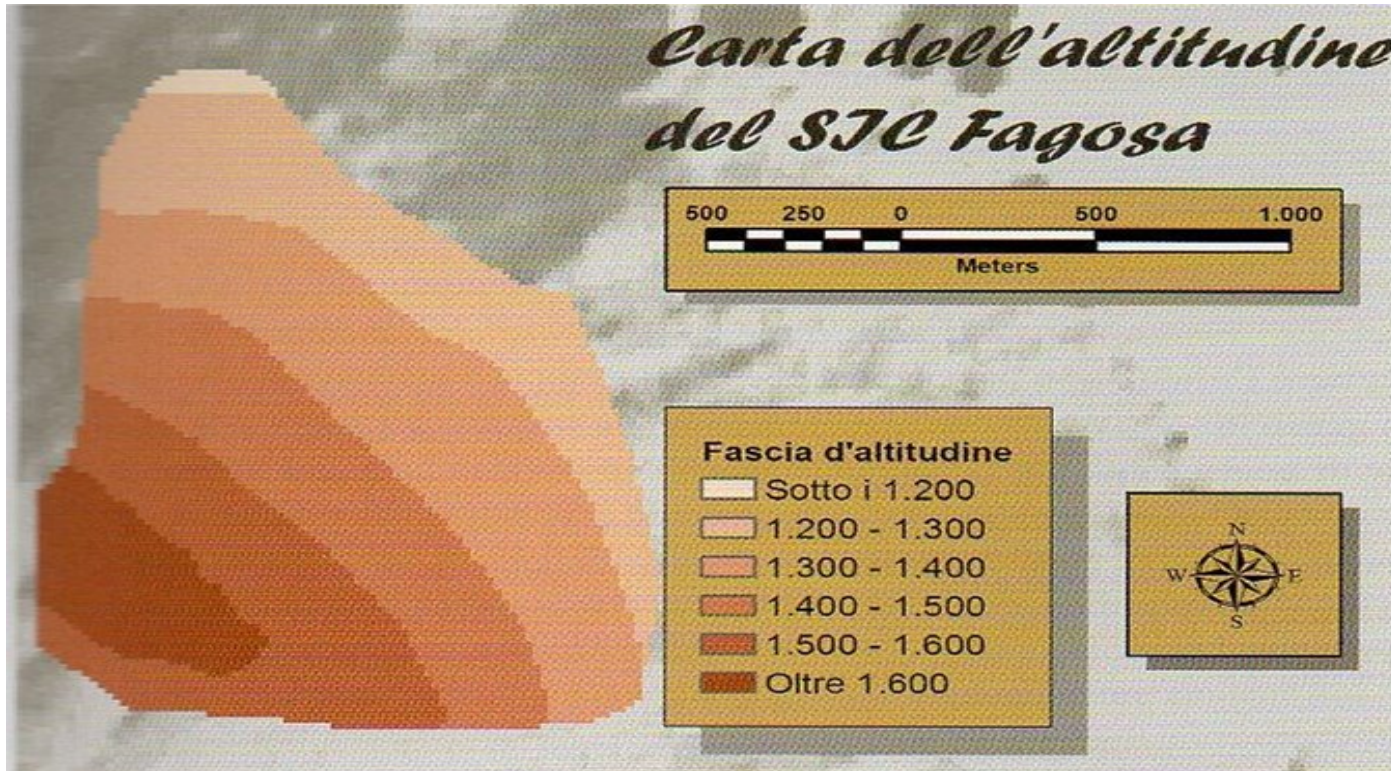
land use in the SCI in the Fagosa area



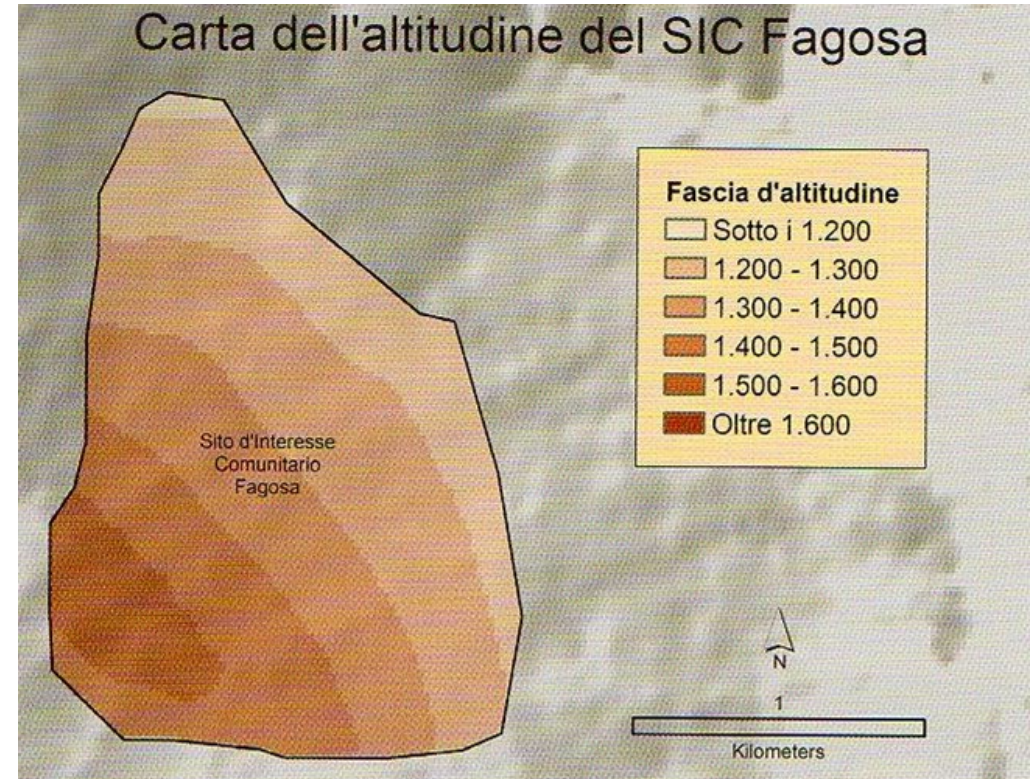
UNIVERSITÀ
DEGLI STUDI
DI BERGAMO

Dipartimento
di Lingue, Letterature
e Culture Straniere

Visual hierarchy

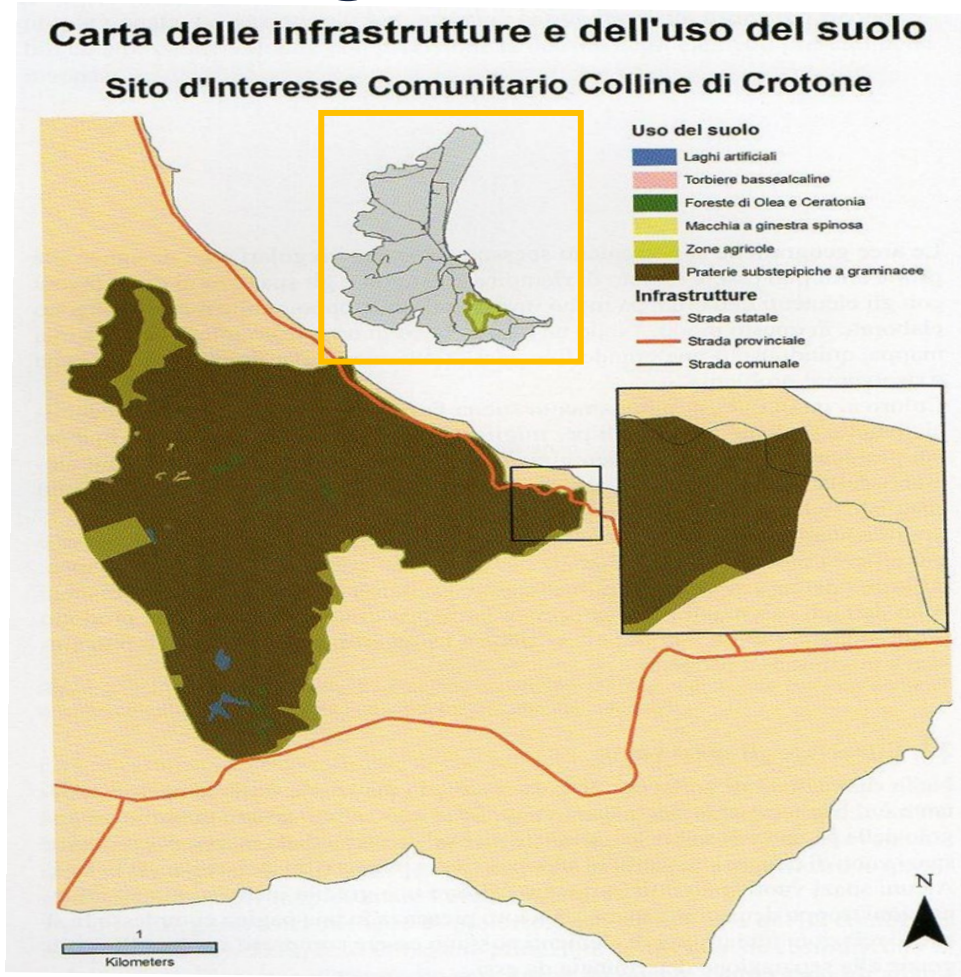


Pay attention to the decorative elements

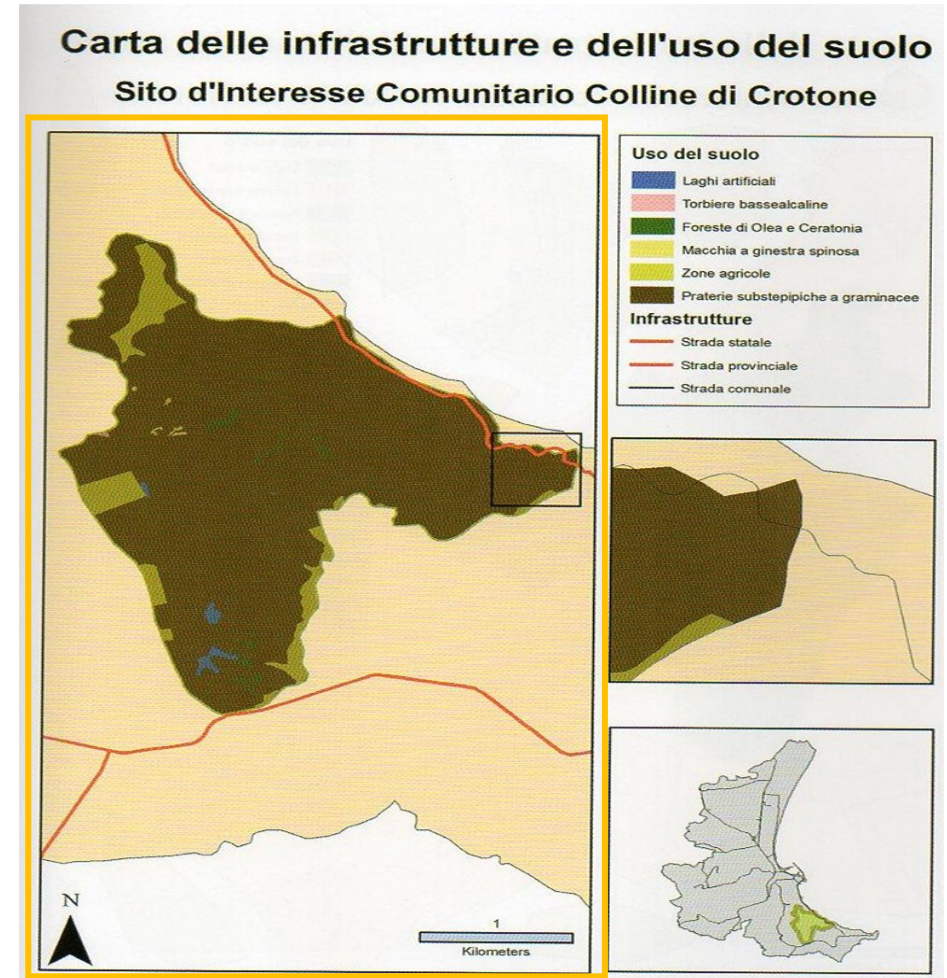


Simplify the elements

Balancing spaces



Pay attention to the density of information



Balancing of white spaces



UNIVERSITÀ
DEGLI STUDI
DI BERGAMO

Dipartimento
di Lingue, Letterature
e Culture Straniere

Use of fonts



Use of fonts

Carta delle infrastrutture
(Times New Roman)



Carta delle infrastrutture
(Verdana)



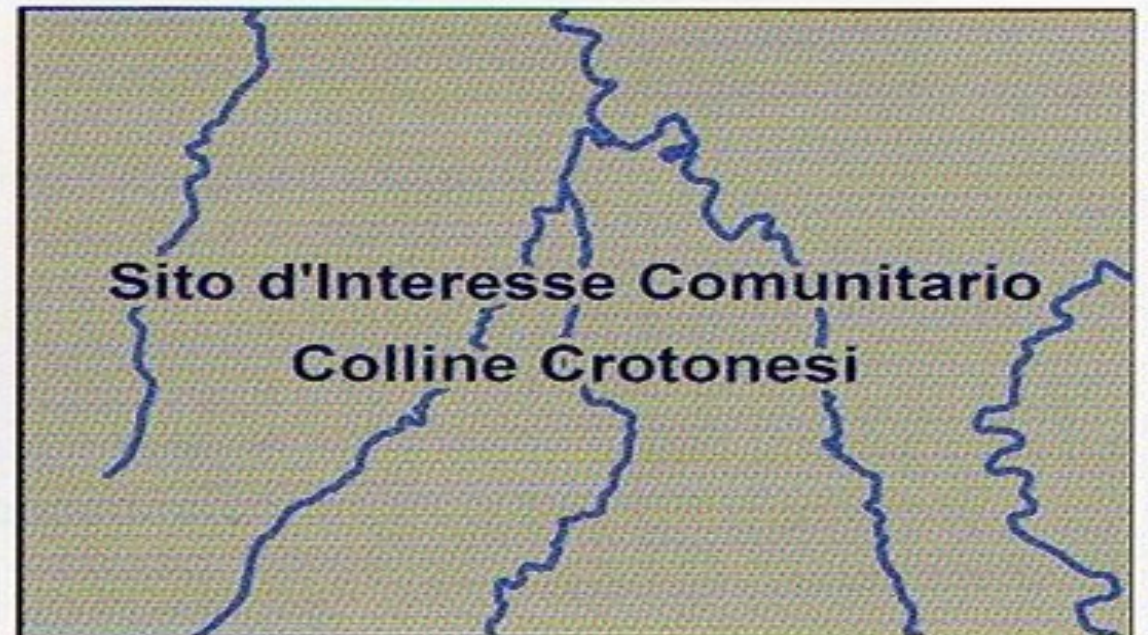
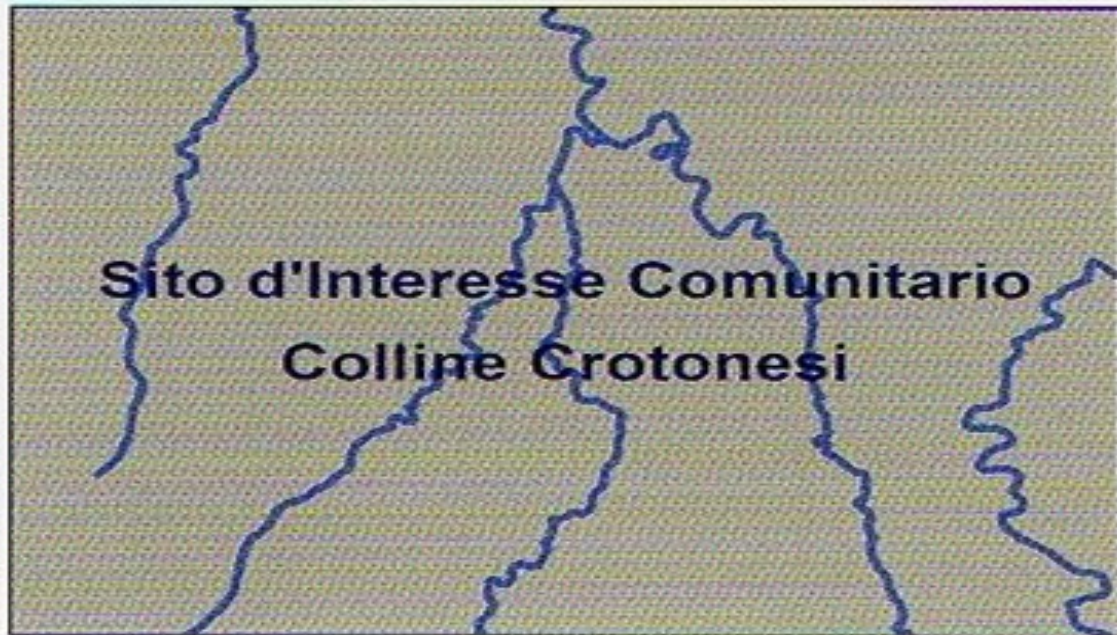
Carta delle infrastrutture
(Haettenschweiler)



Carta delle infrastrutture
(Rage Italic)



Use of fonts



Use of fonts

Use of buffers and shades



The colors

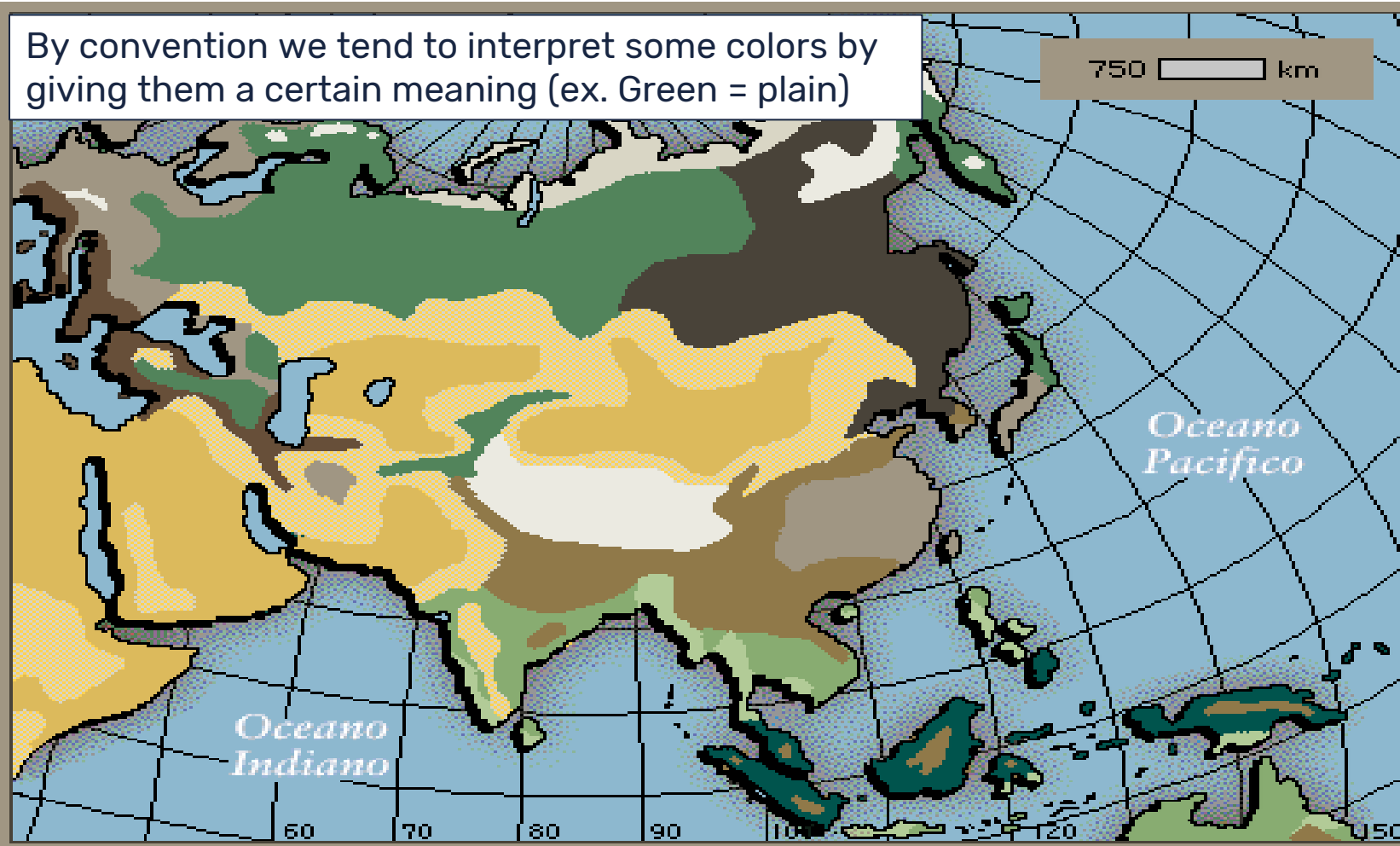


UNIVERSITÀ
DEGLI STUDI
DI BERGAMO

Dipartimento
di Lingue, Letterature
e Culture Straniere

The colors: climate map

By convention we tend to interpret some colors by giving them a certain meaning (ex. Green = plain)



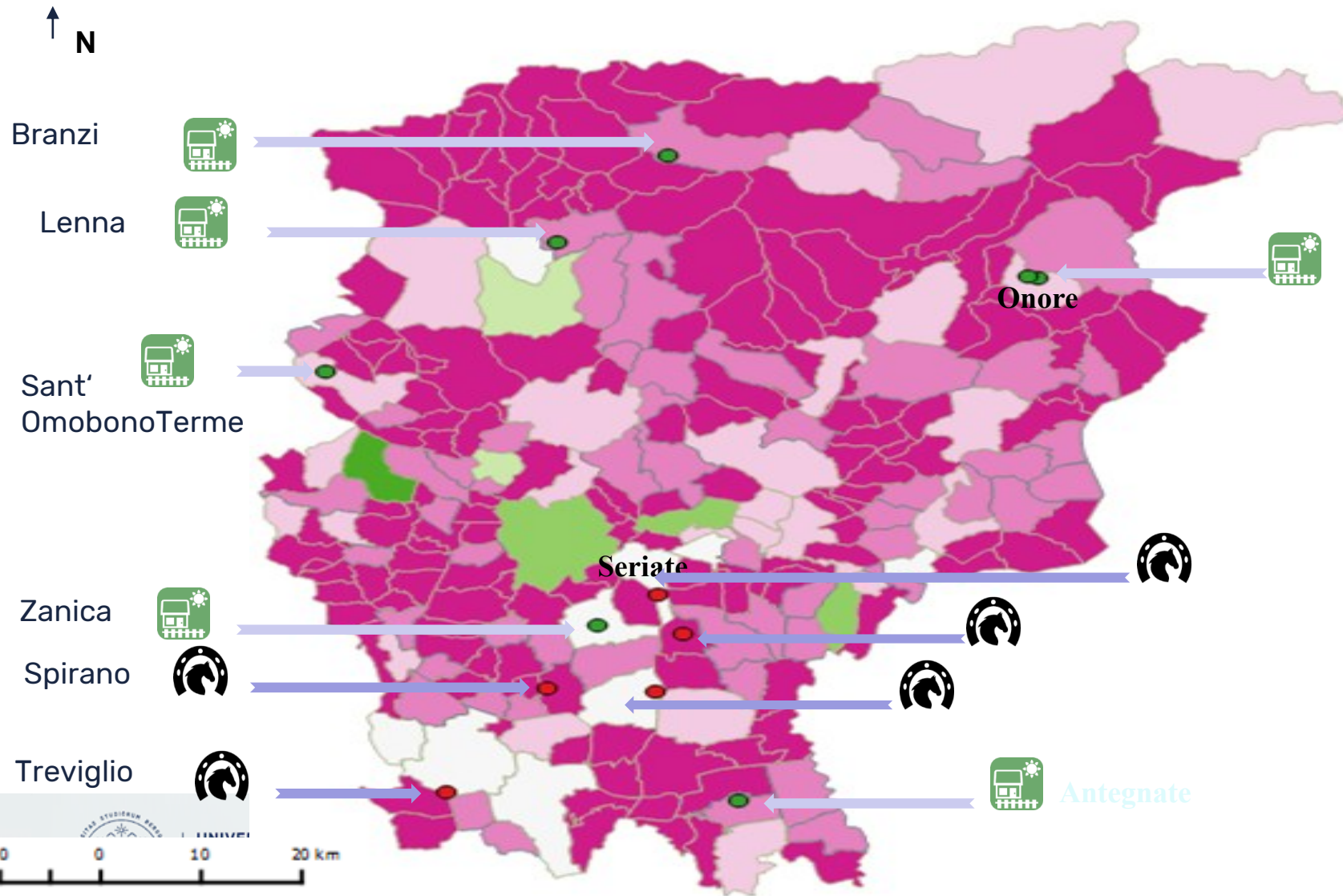
CALDO UMIDO (Foresta pluviale e savana)
Assenza di stagione secca
Breve stagione secca
Inverno secco
TEMPERATO UMIDO (Foresta mista e prateria)
Assenza di stagione secca
Inverno secco
Estate secca
FREDDO UMIDO (Conifere e foresta mista)
Assenza di stagione secca
Inverno secco
SECCO (Steppa e deserto)
Semiarido
Arido
POLARE E ALPINO (Tundra, regioni alpine e polari)
Ghiacci perenni e permafrost
Tundra

The colors

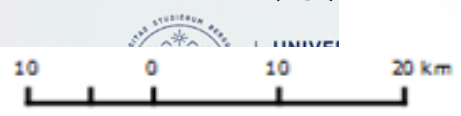


The colors: farmhouse map

Usually, a more intense color is used to indicate a more intense phenomenon (a higher value). Associating dark pink with the value of zero and white with the value of 3 is misleading for those reading the map

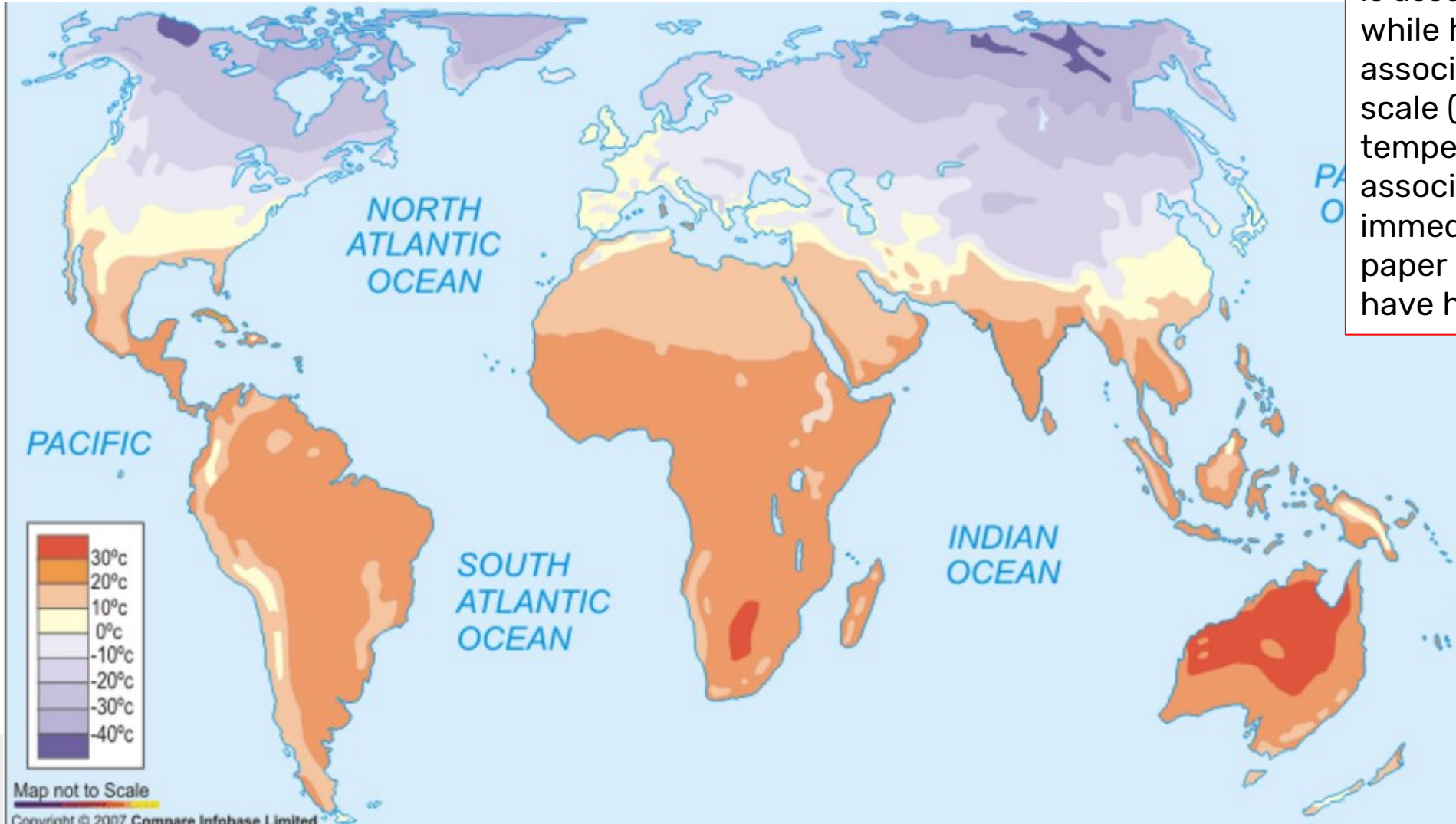


Number of Agritourism on territory	
	0
	1
	2
	3
	4
	5
	6
	Agritourism with manege
	Manege and Equestre centers

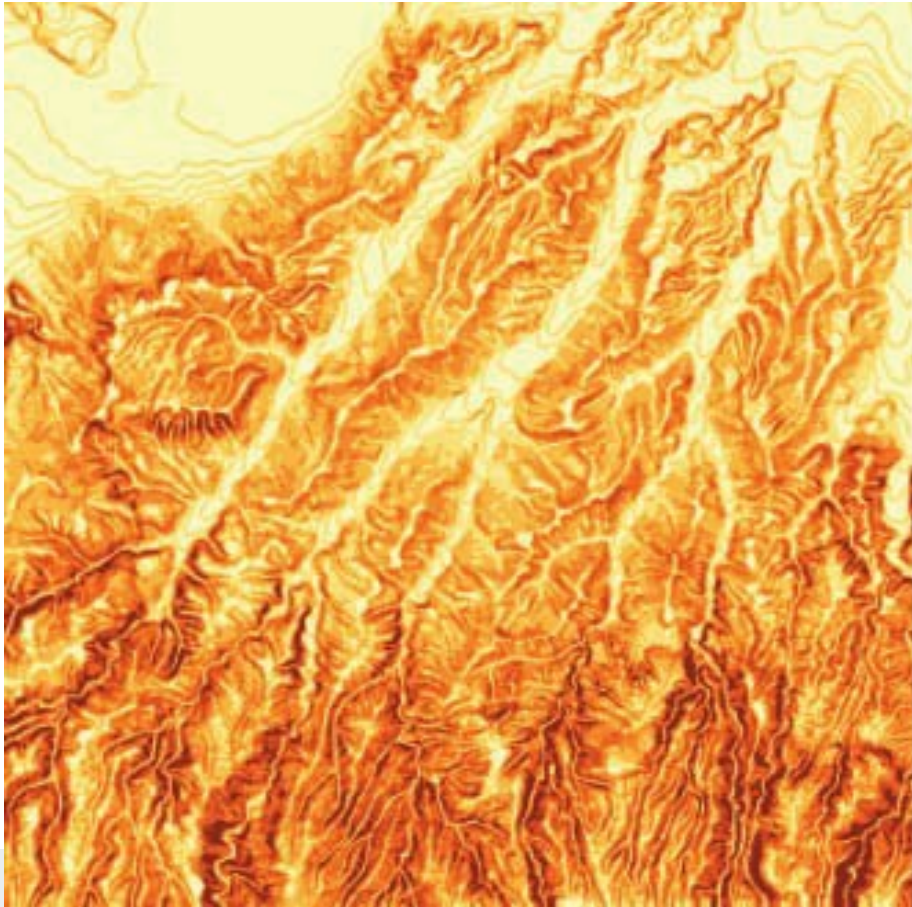


The colors: temperature

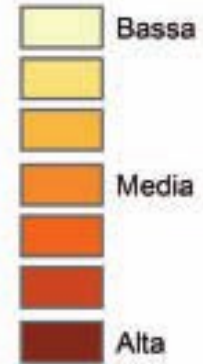
In this case the value zero (degrees) is associated with a neutral colour, while high temperatures are associated with colors in the red scale (warm colour) and temperatures below zero are associated with a purple color (cold), I immediately allow those who read the paper to understand which areas have higher temperatures



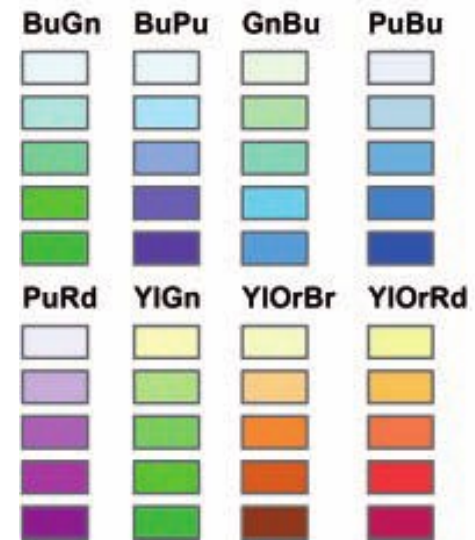
The colors: gradient tones



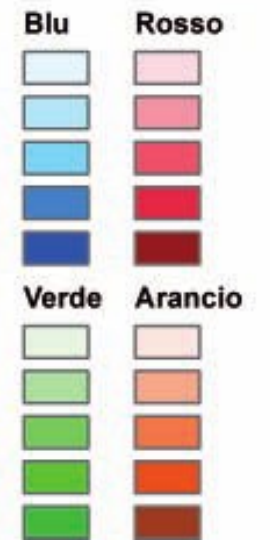
Carta delle pendenze



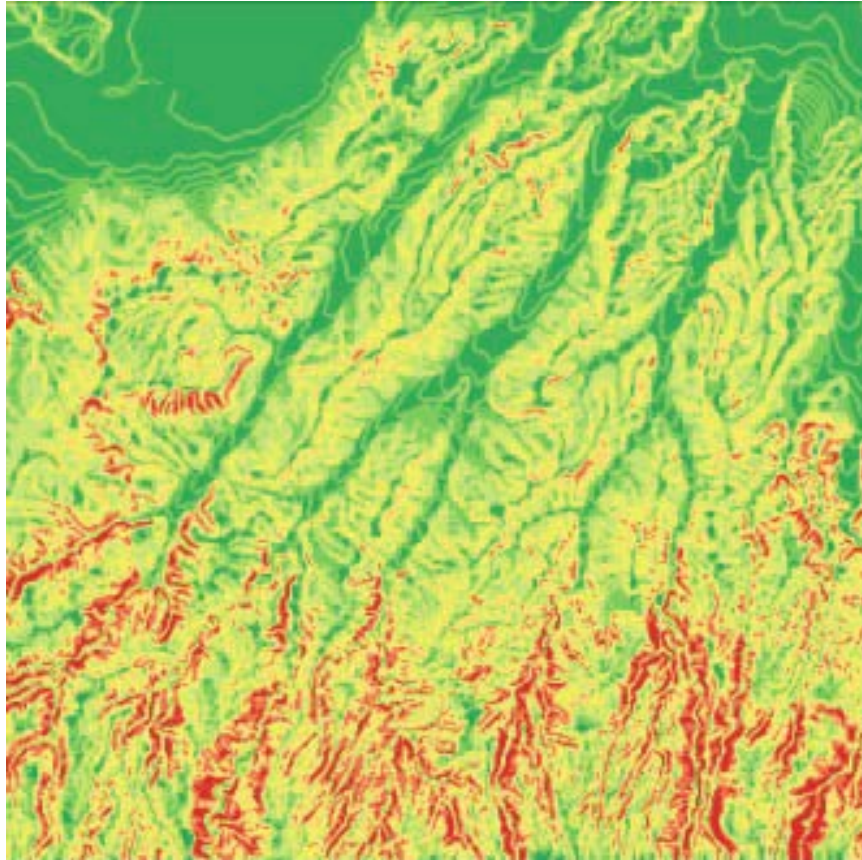
Tonalità multiple



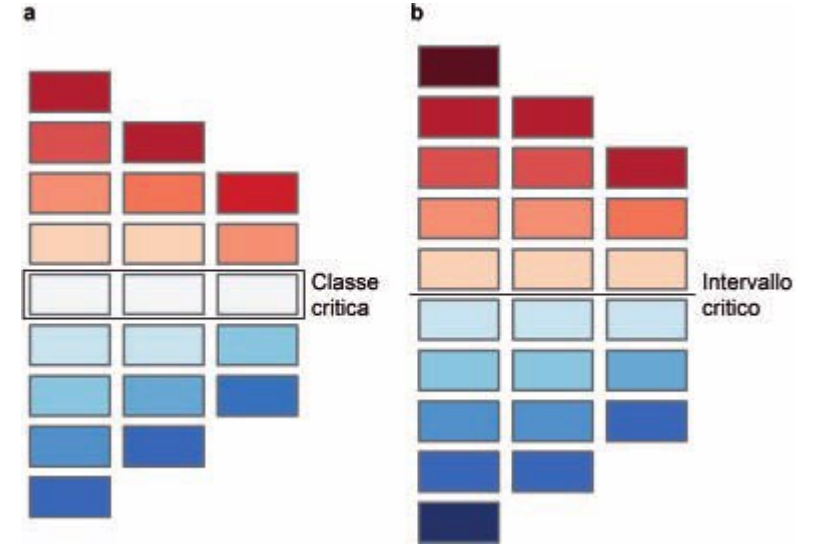
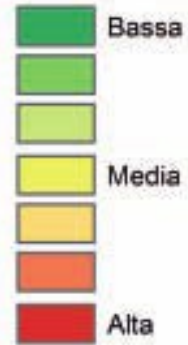
Tonalità singole



Colore: divergent tones



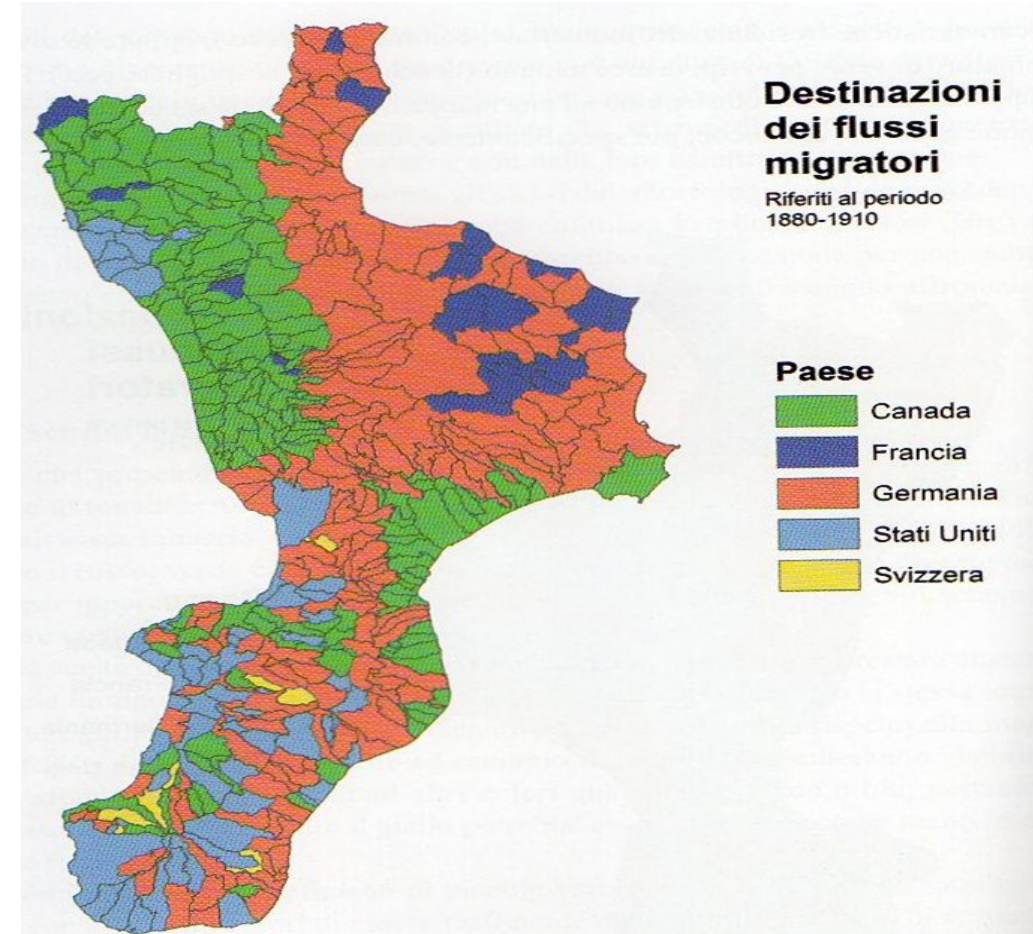
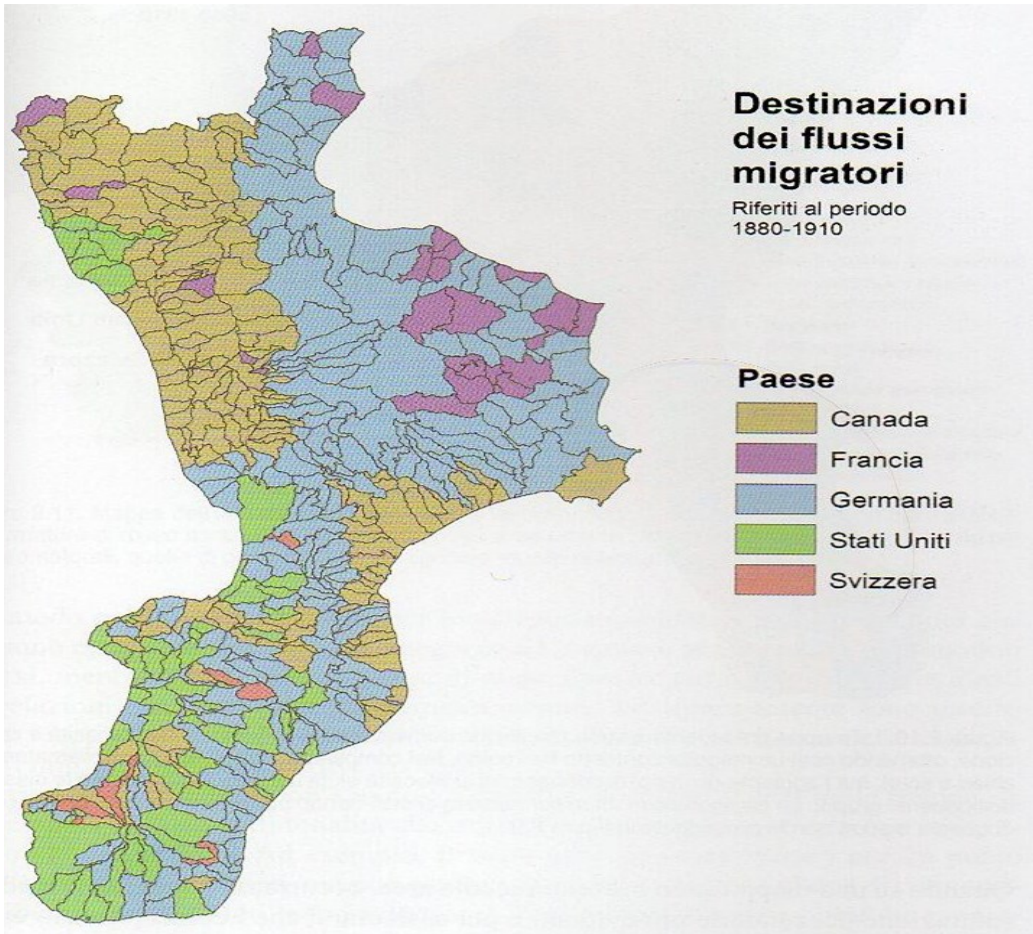
Carta delle pendenze



Classi dispari: classe media con colore neutro

Classi pari: valore limite che divide i due colori

The colors: qualitative tones



constant brightness and saturation with hue variation

increase in brightness and saturation = greater contrast



UNIVERSITÀ
DEGLI STUDI
DI BERGAMO

Dipartimento
di Lingue, Letterature
e Culture Straniere

Cartographic examples

- Evaluation of some cartographic examples together with the students
- Individual work by students to draft some maps





UNIVERSITÀ
DEGLI STUDI
DI BERGAMO

Dipartimento
di Lingue, Letterature
e Culture Straniere

Questions?

Second part: Lab activity

Geourbanistica

Planning and Management of
Tourism Systems

Text Sciences and Culture
Enhancement in the Digital Age

Dott. Umberto Fede

Dott. Edmondo Pietrangeli

Università degli Studi di Bergamo,
sede di Via Salvecchio, 19