

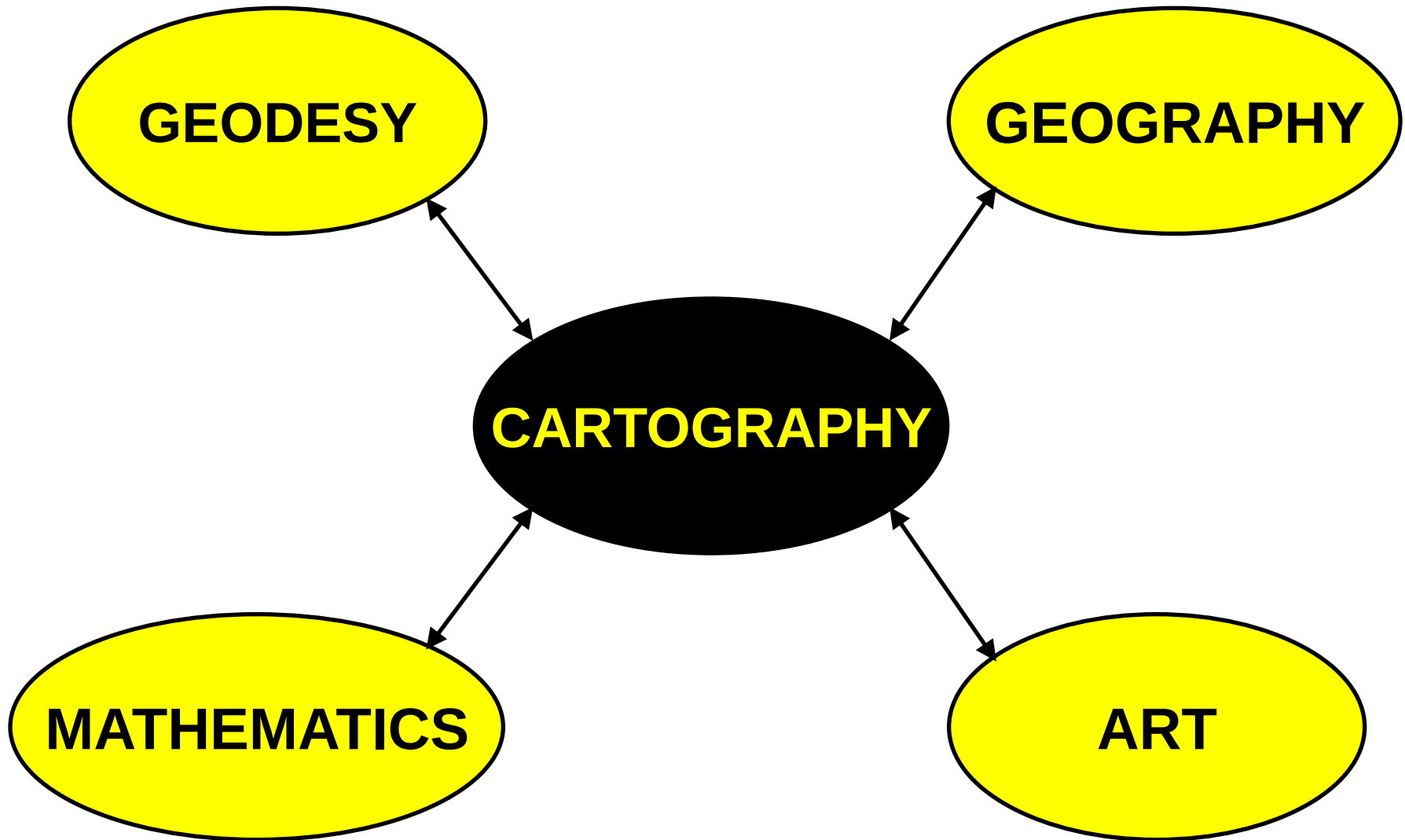


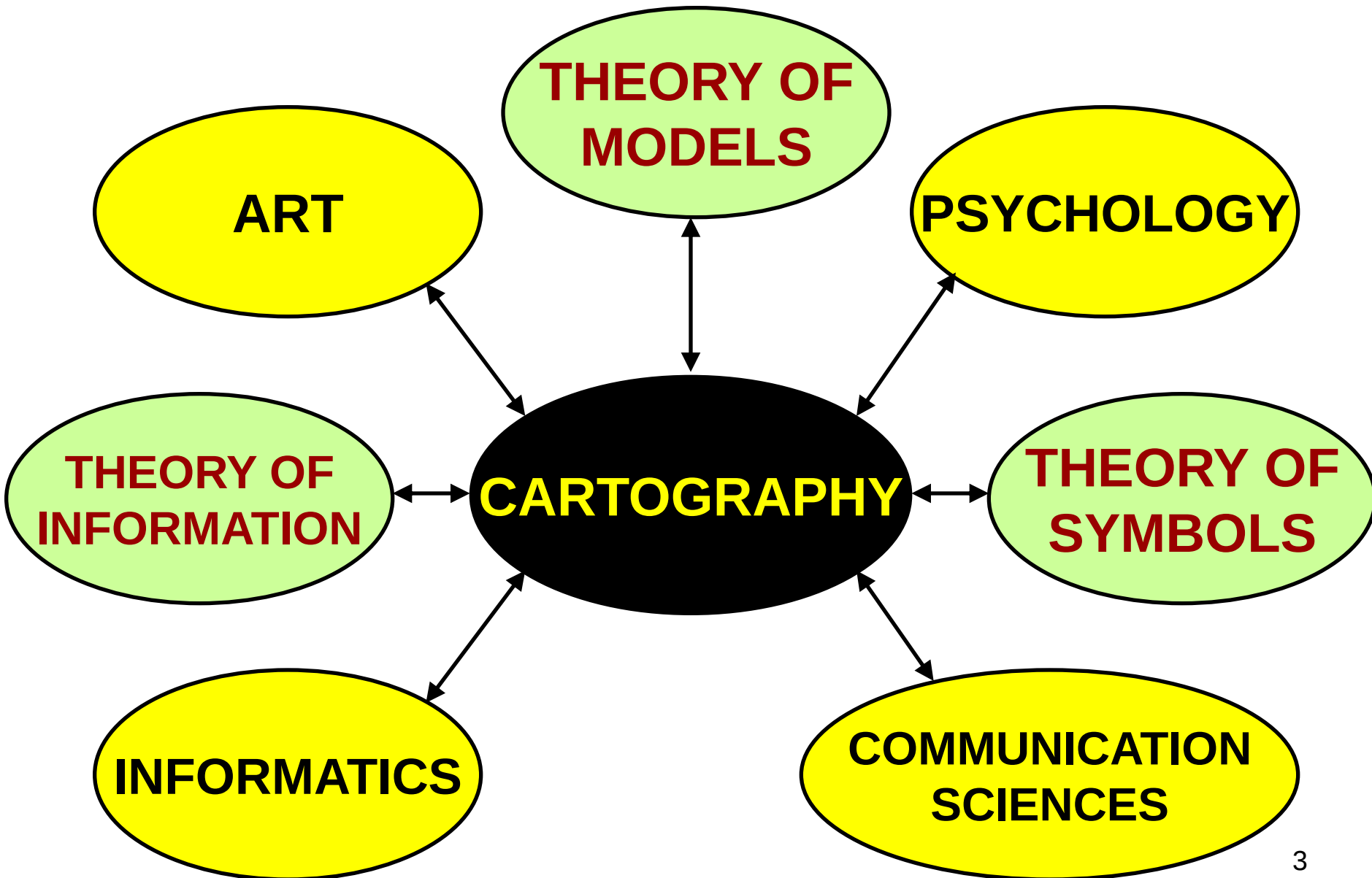
ELEMENTS OF ART ON CARTOGRAPHIC REPRESENTATIONS – yesterday, today, tomorrow

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WORK OF ART

- Result of free, subjective experience

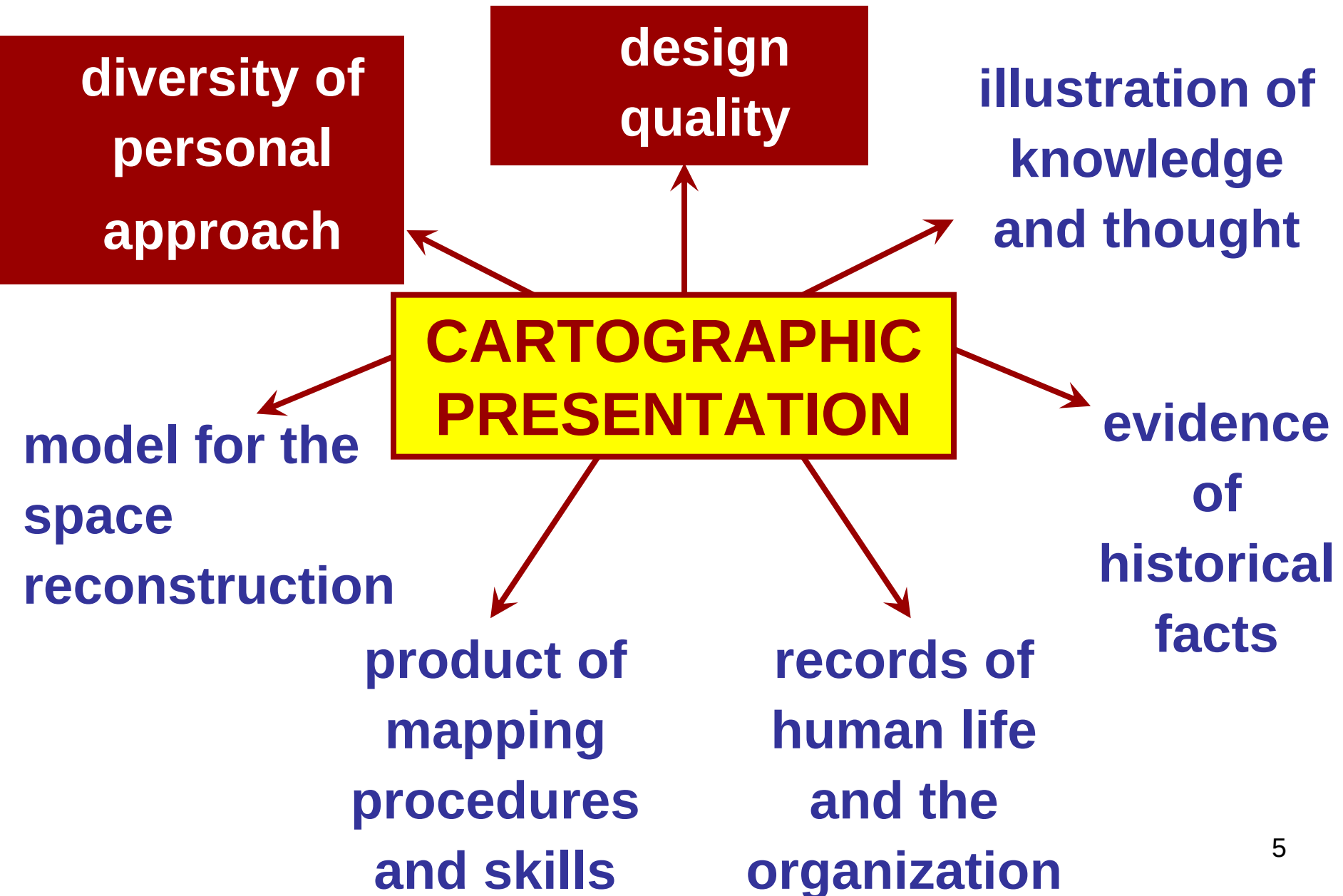


CARTOGRAPHIC PRESENTATION

- Most objective view of space, usually in a different scale, with pre-defined means of expression – map graphics



Link between cartography and art



Link between cartography and art



MAP – a symbolised image of geographical reality, representing selected features or characteristics, resulting from the **creative effort of its author's execution of choices**, and is designed for use when spatial relationships are of primary relevance (ICA 1996)





WORK OF ART

CARTOGRAPHIC PRESENTATION

MEANS OF EXPRESSION

- **Drawing:** form, **rhythm**, composition, **dominance**
- **Painting:** color, color-tone, space, composition, **harmony**
- **Graphics:** **contrast**, composition, pattern (texture), **harmony**
- **Applied Art:** composition, symbols, **rhythm**, **contrast**, pattern (texture), **unity**

- **Map graphics:**
 - **contrast**
 - **harmony**
 - **rhythm**
 - balance
 - proportion
 - dominance
 - **unity**



WORK OF ART

- Space
- Volume
- Surface
- Line
- Harmony
- Contrast
- Color
- Form

CARTOGRAPHIC PRESENTATION

VARIABLES

- Position
- Size
- Tonal value
- Sample
- Color
- Direction
- Form
- Time

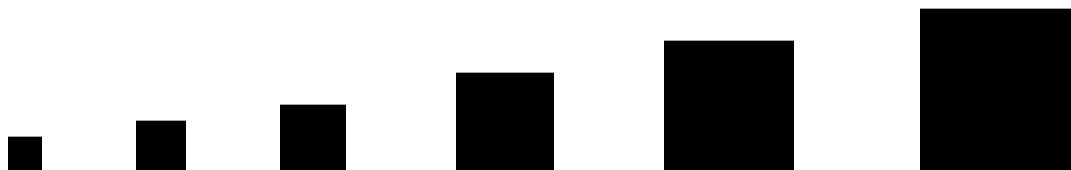


ELEMENTS OF MAP GRAPHICS

- **BASIC GEOMETRICAL-
GRAPHICAL ELEMENTS**
 - Point
 - Line
 - Area
- **CARTOGRAPHIC
SYMBOLS**
 - Map symbol
 - Map diagram
- **COLORS (scale, raster, diagram, multi tones)**
- **LETTER**

VARIABLE FOR MAP GRAPHICS DESIGN

- Size



- Tonal value



- Sample



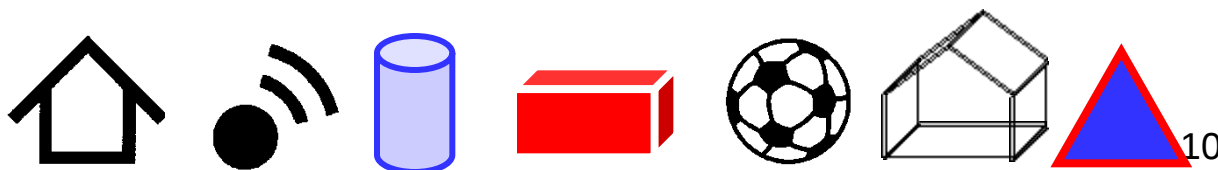
- Color



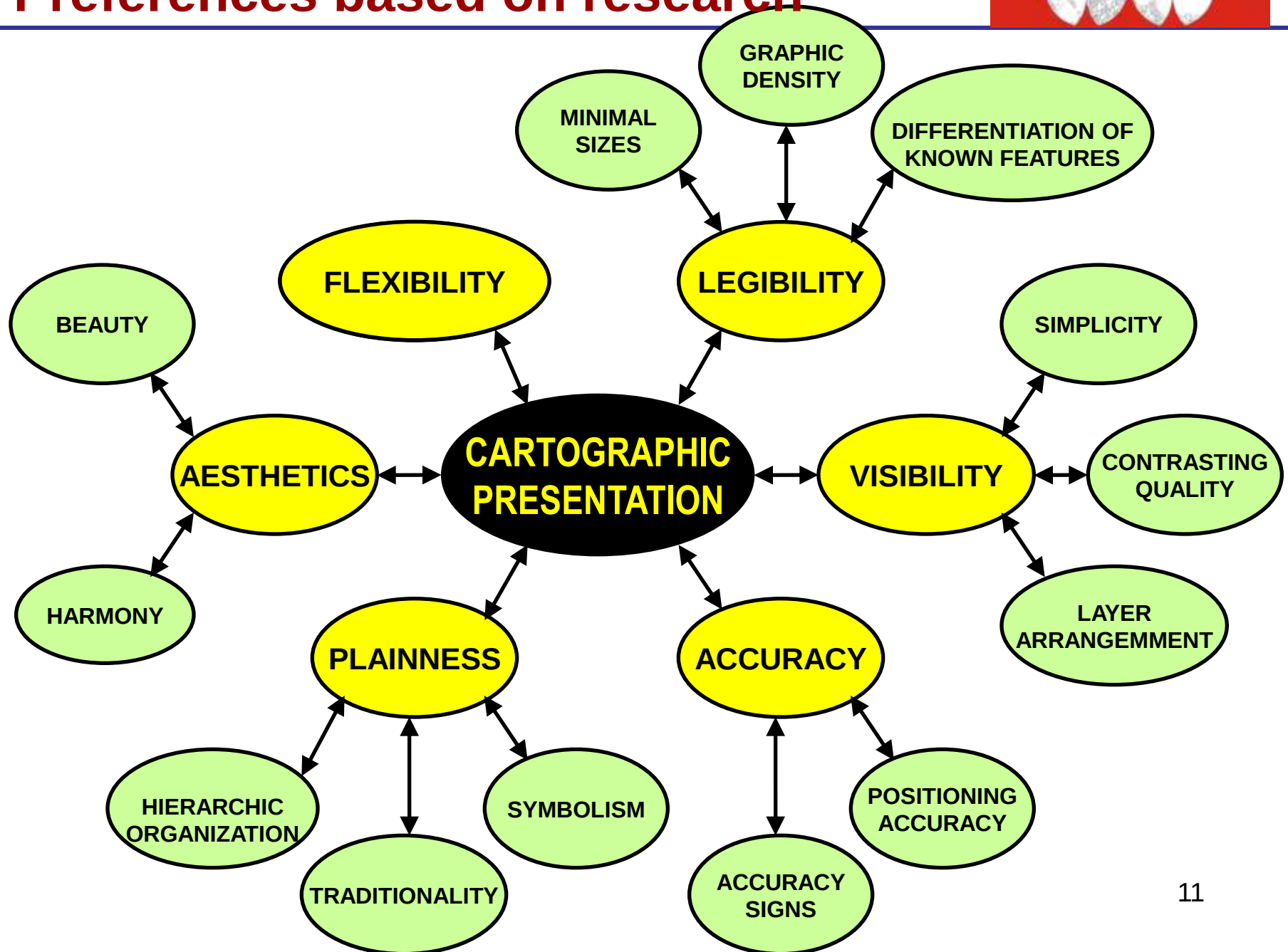
- Direction



- Form



Preferences based on research





SIMPLICITY

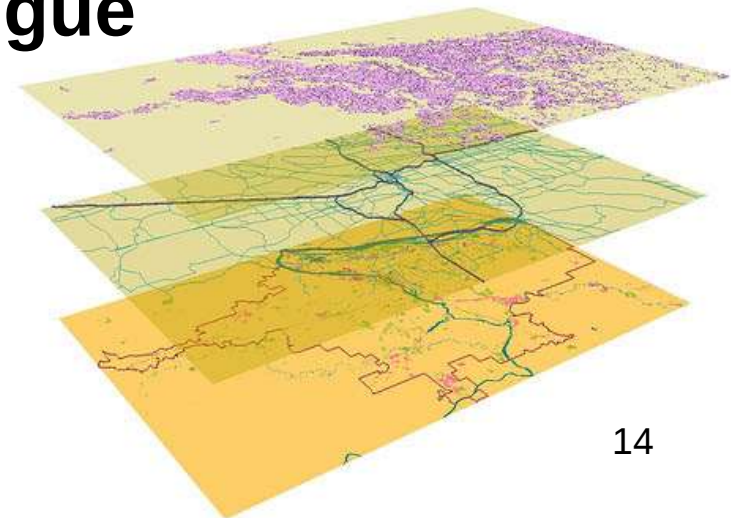
- Simple forms
- Purposefully designed symbols
- Scientifically established forms of symbols
- Symbolic cartographic sign
- Setting aside the important from the unimportant
- Question: Is this and the extent possible?

CONTRASTING QUALITY

- Noticeable contradictions of map graphics elements
- Choice of colors which with their presence already the classify, emphasize, analyze
- The risk of achieving the opposite effect, when cartographic presentation becomes rough, insufficiently differentiated, unreviewed

LAYER ARRANGEMENT

- Main content or the first layer should be more prominent and emphasized with implementation and design of adequate map graphics
- Details of minor importance will be completely remote or obscure
- Prevents monotony and fatigue
- **Visual layers**





SYMBOLISM

- Similarities with real natural appearance of object
- Symbolic sign
- Character type
- Symbolism achieved by colors



TRADITIONALITY

- Positive symbols characteristic, because represents a part of the efforts made in the standardization of cartographic symbols on a wider level
- The use of color on the cartographic representation there are rules that have become systematic application of well-established and traditional
- Cartographer doesn't have at any time complete freedom in choosing and application of cartography
- Cartographer forced to follow certain conventions and standards



AESTHETICS

- Means a sense of beauty, sophistication, taste, and aesthetically is what contains the characteristics of beauty, euphemistically, refined, idealized
- Digital technology, with its advantages and disadvantages, joined here with the concept of **digital aesthetics**
- Aesthetic components that enhance the use value of cartographic representation are:
 - **Harmony or balance**
 - **Beauty**



HARMONY

- Harmony of parts of the entirety, which corresponds to a certain aesthetic requirements
- Between two opposites: **monotony and contrast**, which combines the features of both
- Most civilized people is somewhat conservative and therefore assumes harmony rather than extremes
- Monotony bores, and strong contrasts are too intensive, easy to perceive and even naive
- Desirable to achieve **visual balance** within the order of the whole map

BEAUTY

- Entirely subjective concept
- Beautiful cartographic presentation is generally clear
- Clarity of cartographic representation can be divided into two elements:
 - **Content clarity** is reflected in the understanding of the information provided by the cartographic presentation
 - **Graphic clarity**, consisting of visual recognition of shapes and the visual recognition of the same shape

Application of research



CONDITIONS ELEMENTS	Simpli- city	Contra- sting quality	Layer arran- gement	Simbo- lism	Tradi- tiona- lity	Harmo- ny	Bea- uty
Basic geometric - graphic elements							
Symbols							
Diagrams							
Raster scales							
Color tones							
Color							
Letter							
TOTAL							

Interpreter applied tags: + + = very good, + = good, + / - = medium, - = poor, 0 = not applied, N = not possible to investigate



Application of research

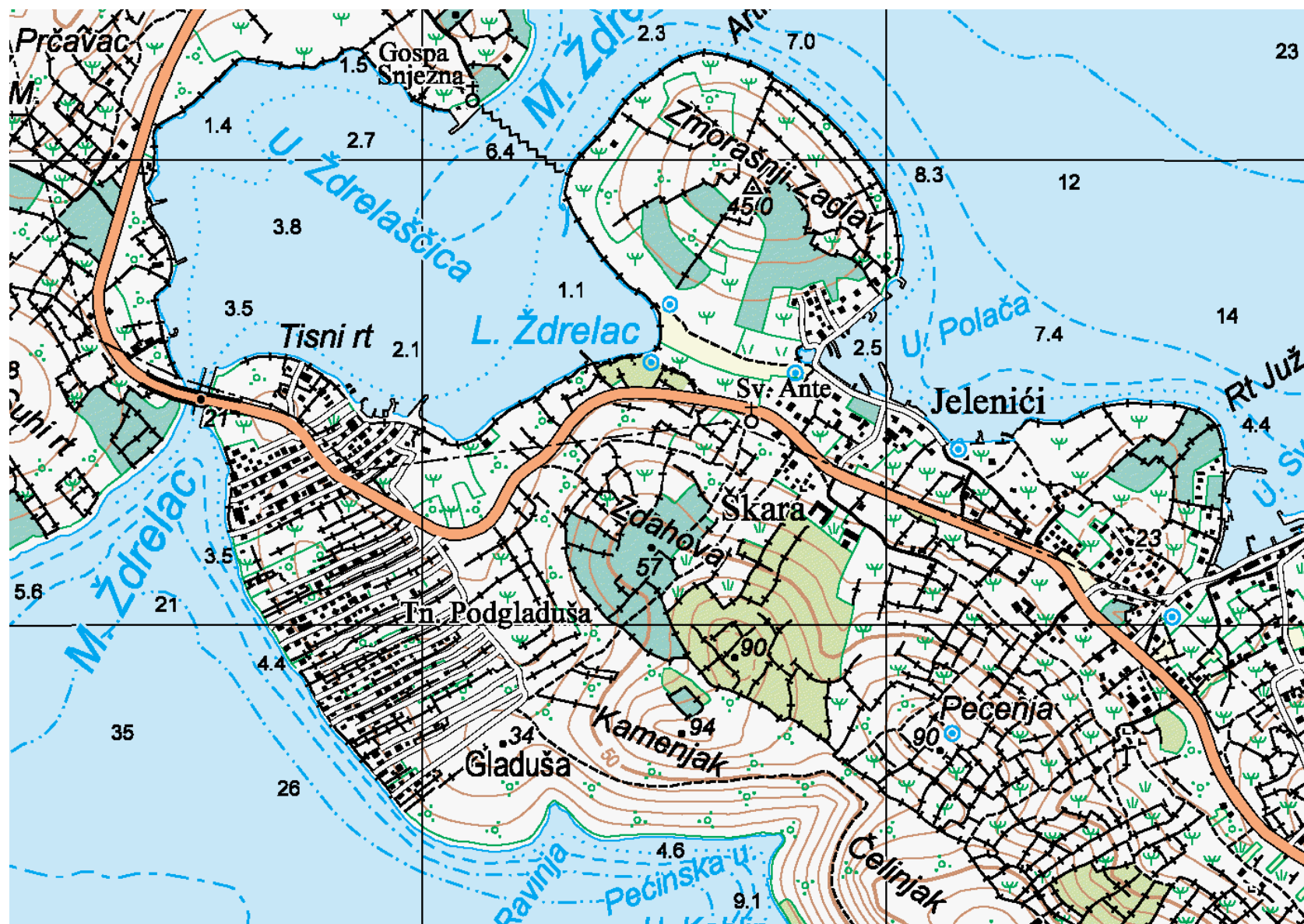


CONDITIONS ELEMENTS	Simpli- city	Contra- sting quality	Layer arran- gement	Simbo- lism	Traditiona- lity	Harmo- ny	Bea- uty
Basic geometric - graphic elements	N	+	-	N	+	+	+/-
Symbols	+/-	+	-	++	++	+	+
Diagrams	0	0	0	0	0	0	0
Raster scales	0	0	0	0	0	0	0
Color tones	+/-	++	++	+	+	+	++
Color	+	+/-	+/-	+	+	+/-	-
Letter	-	+/-	-	-	+	+/-	+/-
TOTAL	+/-	+	-	+	+	+	+/-

good (2,9)

Interpreter applied tags: + + = very good, + = good, + / - = medium, - = poor, 0 = not applied, N = not possible to investigate

Application of research



Segment of Topographic map in scale 1:25 000 (TK25)

Application of research



CONDITIONS ELEMENTS	Simpli- city	Contra- sting quality	Layer arran- gement	Simbo- lism	Traditiona- lity	Harmo- ny	Bea- uty
Basic geometric - graphic elements	N	+	+/-	N	+	+	+
Symbols	++	+	+	+/-	+	+	++
Diagrams	0	0	0	0	0	0	0
Raster scales	0	0	0	0	0	0	0
Color tones	0	0	0	0	0	0	0
Color	+	+	++	+	+	++	+
Letter	+	+	-	-	+	+	+
TOTAL	+	+	+/-	+/-	+	+	+

good (3,4)

Interpreter applied tags: + + = very good, + = good, + / - = medium, - = poor, 0 = not applied, N = not possible to investigate



- **Elements of art on cartographics representations**
- **Represented only a small part of the research started more than 15 years ago**
- **Further research**
- **Elements of Cartography at the works of art**



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