Appendix 8. Guidelines of usage of static visual variables, related methods of cartographic presentation and functionalities

Age group	General recommendations	Visual static variables (rank) A	Visual static variables (rank) B	Methods of presentations	Functionalities
[1]	Common recommendations: 1. Avoid too complex maps; 2. Avoid too little signs 3. Avoid too little lettering	**1 size 8** **2 form 8** **3 value 8** **4 colour 8** *5 grain 3* *6 orientation 3* *7 brillance 4* 8 transparency 7 *9 aura ?*	**1 size 8** **2 form 8** **3 value 8** **4 colour 8** *5 grain 3* *6 orientation 3* *7 brillance 4* 8 transparency 7 *9 aura 4*	Kc, Sβa, Sαa, MCa	**F1**
[2]	Common recommendations	**1 size 9** **2 form 9** **3 value 9** **4 colour 9** 5 grain 8 6 orientation 8 *7 brillance 4* 8 transparency 8 *9 aura ?*	**1 size 9** **2 form 9** **3 value 9** **4 colour 9** 5 grain 8 6 orientation 8 *7 brillance 4* 8 transparency 8 9 aura 5	Sαb, Kc, Sαc, Kdαc, *Sβb*, Sβa, *Sβc*, *Kγc*, *KDγc*, Sαa, MCa, *MZa*	**F1, F4:** a
[3]	Common recommendations	**1 size 9** **2 form 9** **3 value 9** **4 colour 9** 5 grain 8 6 orientation 8 7 brillance 8 8 transparency 7 *9 aura ?*	**1 size 9** **2 form t 9** **3 value 9** **4 colour 9** 5 grain 8 6 orientation 8 7 brillance 8 8 transparency 7 9 aura 7	Sαb, Kdαb, Kc, Sαc, Kdαc, Sβb, Ic, Sβa, Sβc, Kγc, KDγc, Sαa, MCa, MZa	**F1, F4:** a, c, e, f, g
[4]	Common recommendations	**1 size 8** **2 form 8** **3 value 8** **4 colour 9** 5 grain 8 6 orientation 8 7 brillance 8 8 transparency 7 *9 aura ?*	**1 size 8** **2 form 8** **3 value 8** **4 colour 9** 5 grain 8 6 orientation 8 7 brillance 8 8 transparency 7 9 aura 7	Sαb, Kdαb, Kc, Sαc, Kdαc, Sβb, Ic, Sβa, Sβc, Kγc, KDγc, Sαa, MCa, MZa,	**F1, F2** **F4:** a, c, e, f, g, **F7:** a,d,

Age group	General recommendations	Visual static variables (rank) A	Visual static variables (rank) B	Methods of presentations	Functionalities
[5]	Common recommendations	**1 size 8**	**1 size 8**	Sαb, Kαb, Kdαb, Kc, Sαc, Kαc, Kdαc, Sβb, Kβb, Kdβb, Ic, Sβa, Sβc, Kβc, Kdβc, KαBb, Kγb, KDγb, KαBc, Kγc, KDγc, Sαa, MCa, MZa,	**F1, F2,** **F4:** a, b, c, d, e, f, g **F5, F6, F7:** a,d
		2 form 8	**2 form 8**		
		3 value 7	**3 value 7**		
		4 colour 8	**4 colour 8**		
		5 grain 7	5 grain 7		
		6 orientation 7	6 orientation 7		
		7 brillance 6	7 brillance 6		
		8 transparency 7	8 transparency 7		
		9 aura ?	9 aura 8		
[6]	Common recommendations. Maps for peoples with hypermetropia.	**1 size 6**	**1 size 6**	Sαb, Kαb, Kdαb, Kc, Sαc, Kαc, Kdαc, Sβb, Kβb, Kdβb, Ic, Sβa, Sβc, Kβc, Kdβc, KαBb, Kγb, KDγb, KαBc, Kγc, KDγc, Sαa, MCa, MZa	**F1, F2,** **F4:** a, b, c, d, e, f, g **F5, F6, F7**: a,d
		2 form 6	**2 form 6**		
		3 value 3	**3 value 3**		
		4 colour 6	**4 colour 6**		
		5 grain 5	5 grain 5		
		6 orientation 5	6 orientation 5		
		7 brillance 5	7 brillance 5		
		8 transparency 4	8 transparency 4		
		9 aura ?	9 aura 5		
[7]	Common recommendations. Maps for peoples with hypermetropia and myopia.More light. Careful choice of variables of colour (risk of confusion in the case of green, blue and purple) and value (yellow seems to be brighter).	**1 size 5**	**1 size 5**	Sαb, *Kαb*, Kdαb, *Kc*, Sαc, *Kαc,* Kdαc, Sβb, Kβb, Kdβb, Ic, Sβa, Sβc, Kβc, Kdβc, *KαBb*, Kγb, KDγb, *KαBc*, Kγc, KDγc, Sαa, MCa, MZa	**F1, F2,** **F4:** a, b, c, d, e, f, g **F5, F6, F7:** a,d
		2 form 5	**2 form 5**		
		3 value 2	**3 value 2**		
		4 colour 4	**4 colour 4**		
		5 grain 2	*5 grain 2*		
		6 orientation 2	*6 orientation 2*		
		7 brillance 3	7 brillance 3		
		8 transparency 2	*8 transparency 2*		
		9 aura ?	*9 aura 2*		
[8]	Common recommendations. Maps for peoples with myopia. More light. Careful choice of variables of colour (risk of confusion in the case of green, blue and purple) and value (yellow seems to be brighter).	**1 size 3**	**1 size 3**	Sαb, *Kαb*, *Kdαb*, *Kc*, Sαc, *Kαc,* Kdαc, Sβb, Kβb, Kdβb, Ic, Sβa, Sβc, Kβc, Kdβc, *KαBb*, Kγb, KDγb, *KαBc*, Kγc, KDγc, Sαa, MCa, MZa	**F1, F2,** **F4:** a, b, c, d, e, f, g **F5, F6, F7:** a,d
		2 form 3	**2 form 3**		
		3 value 2	**3 value 2**		
		4 colour 3	**4 colour 3**		
		5 grain 1	*5 grain 1*		
		6 orientation 1	*6 orientation 1*		
		7 brillance 1	*7 brillance 1*		
		8 transparency 2	*8 transparency 2*		
		9 aura ?	*9 aura 1*		

Key:

Static visual variables

1 size; 2 form; 3 value; 4 colour; 5 grain; 6 orientation; 7 brilliance; 8 transparency; 9 aura; variables employed to show the phenomenons are underlined

Entities / measurement levels

α point entities; β line entities; γ area entities;
a - nominal scale measurable entities; b - ordinary scale measurable entities; c - quantitative scale measurable entities

Elements shown in red are inaccessible in the case of archomatic e-papers
Elements shown in green are inaccessible in the case of part of chomatic e-papers

Methods of presentations

Sαb – Ordinary point signatures,
Kαb – Ordinary point choropleth maps,
Kdαb – Ordinary point cartodiagrams
Kc – Dot method,
Sαc – Quantitative point signatures,
Kαc (cs) – Quantitative point choropleth maps,
Kdαc (cs) - Quantitative point cartodiagrams,
Sβb – Ordinary line signatures,
Kβb – Ordinary line choropleth maps,
Kdβb - Ordinary line cartodiagrams
Ic – isoline maps,
Sβa – Qualitative line signatures,
Sβc – Quantitative line signatures,
Kβc (cs) - Quantitative line choropleth maps,
Kdβc (cs) - Quantitative line cartodiagrams
KαBb – Ordinary Bertin's choropleth map,
Kγb – Ordinary area choropleth maps,
KDγb – Ordinary dasimetric choropleth maps,
KαBc - Quantitative Bertin's choropleth map,
Kγc(cs) - Quantitative area choropleth maps,
KDγc(cs) - Quantitative dasimetric choropleth maps,
Sαa – Qualitative point signatures
MCa – Chorochromatic method maps,
MZa – Range maps

Functionalities

F1 - Navigation
F2 – Import of layers
F4 – Edition of static map
F4a – choice of information
F4b – query of information
F4c – choice of the scope of information
F4d – choice of them mode of information
F4e – choice of period
F4f – choice of location
F4g – choice of the extent
F5 – Choice of the method of data processing
F6 – Choice of the type of visualization
F7 – Analysis of spatio-temporal data
F7a – comparison of layers
F7d – intersection of layers

The variables and methods distinguished by italics can be used conditionally