Kansei-based Map Visualization

Shunji Murai, Univ. of Tokyo
Tsukasa Sampei, Chuo Map Co., Ltd.
Naoyuki Tanaka, Chuo Map Co., Ltd.

• Introduction
• Kansei-based Color Palette
• Kansei-based Visualization Techniques
• Conclusions
Introduction

• “Kansei”, a Japanese word refers to “Sensibility” in English
• Kansei is to sense, remember, desire and think of beauty
• Requirements of map users are more reflected to “Kansei-based Visualization”
Requirements of Map Users

• More beautiful
• More understandable
• More informatic
• More GIS oriented
• More easy access
Kansei Words

• “Kansei” is usually given as an adjective
• An adjective implies some somewhat human feeling and experience, which may correspond to specific colors
• “Kansei” may be different depending on nationality, culture, age, geographic location etc.
Kansei-based Color Palette (1)

• Chuo Map Co., Ltd. has developed “Kansei-based Color Palette”, which corresponds to 20 “Kansei Words”.
• Each color palette is composed of 20 different colors
• Color Palette has two types;
  A: All Color Type
  B: Similar Color Type
Kansei-based Color Palette(2)

• TypeA (8 Kansei Words)

  A1 : Sober           A5 : Pastel Color
  A2 : Simple          A6 : Elegant
  A3 : Naive           A7 : Showy
  A4 : Romantic        A8 : Dynamic
Kansei-based Color Palette (3)

• TypeB (12 Kansei Words)

B1 : Mild  B7 : Calm
B2 : Cute   B8 : Clean
B3 : Withered  B9 : Cool
B4 : Restful  B10 : Refined
B5 : Simple&Quiet  B11 : Dreamy
B6 : Young  B12 : Gorgeous
Color Selection Rule for Photoshop(1)

- Type A:
  - H : 18 degree interval for 20 colors
  - B : difference between max. and min. should be within 20% in value
  - S : as given below

![Diagram showing color selection rules]

A1, A2, A3, A4, A5, A6, A7, A8

B-axis and S-axis with ellipses and labels from A1 to A8
Color Selection Rule for Photoshop(2)

- Type B
  
  H : to be selected by psychological test  
  B and S : as given below

![Diagram showing four circles labeled Light-Tone, Showy, Sober, Dense connected by lines indicating 20-30% difference]
Examples of City Map with Kansei-based Color Palette Type A

Sober

Elegant

Romantic

Dynamic
Examples of City Map with Kansei-based Color Palette Type A

Sober
Examples of City Map with Kansei-based Color Palette Type A

Romantic
Examples of City Map with Kansei-based Color Palette Type A

Elegant
Examples of City Map with Kansei-based Color Palette Type A Dynamic
Examples of City Map with Kansei-based Color Palette Type B

Cute

Cool

Young

Gorgeous
Examples of City Map with Kansei-based Color Palette Type B

Cute
Examples of City Map with Kansei-based Color Palette Type B

Young
Examples of City Map with Kansei-based Color Palette Type B

Cool
Examples of City Map with Kansei-based Color Palette Type B

Gorgeous
Examples of Kansei-based Visualization Techniques developed by Chuo Map Co., Ltd.

- Color Hill shading
- Color Composite of Topographic Information
- Conversion of Shading Effect for satellite image
- Generation of Tree Textures with Hill Shading
- Generation of Letters with Sinking Effect
Color Hill Shading
Color Composite of Topographic Information
Conversion of Shading Effect for Satellite image
Generation of Tree Texture with Hill Shading
Generation of Letters with Sinking Effect
Application of Kansei-based Map Visualization

- City Map
- Tourist Map
- Guide Map
- Satellite Image Map
- Bird’s Eye View
- Virtual Reality
Avail ability of Software

• Kansei-based Color Palette.
  By contract; Price: 20,000 Yen / License
  100,000 Yen / Full License

• Kansei-based Map Visualization.
  By contract; Price: negotiable depending on service

• Contact Person
  Mr. Tsukasa Sampei
  E-mail: head@chuomap.co.jp
  Home Page: http://www.chuomap.co.jp
Conclusion

- Kansei-based map visualization enriches map products with Kansei-based color palette.
- Kansei-based map visualization will contribute to widen map businesses as well as scientific applications.