

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)

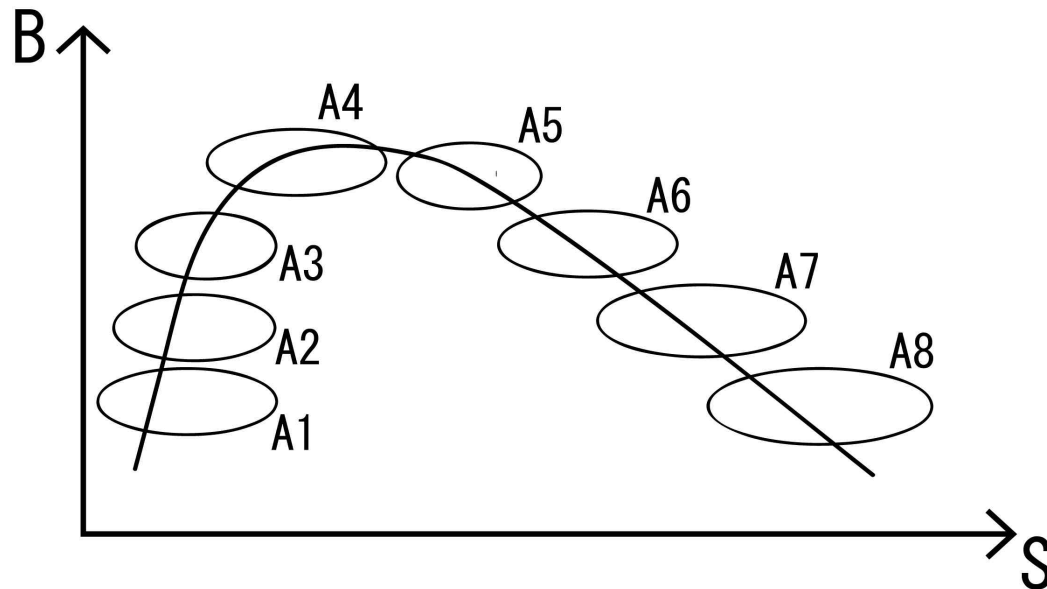
- Type A :

H : 18 degree interval for 20 colors

B : difference between max. and min.

..should be within 20% in value

S : as given below

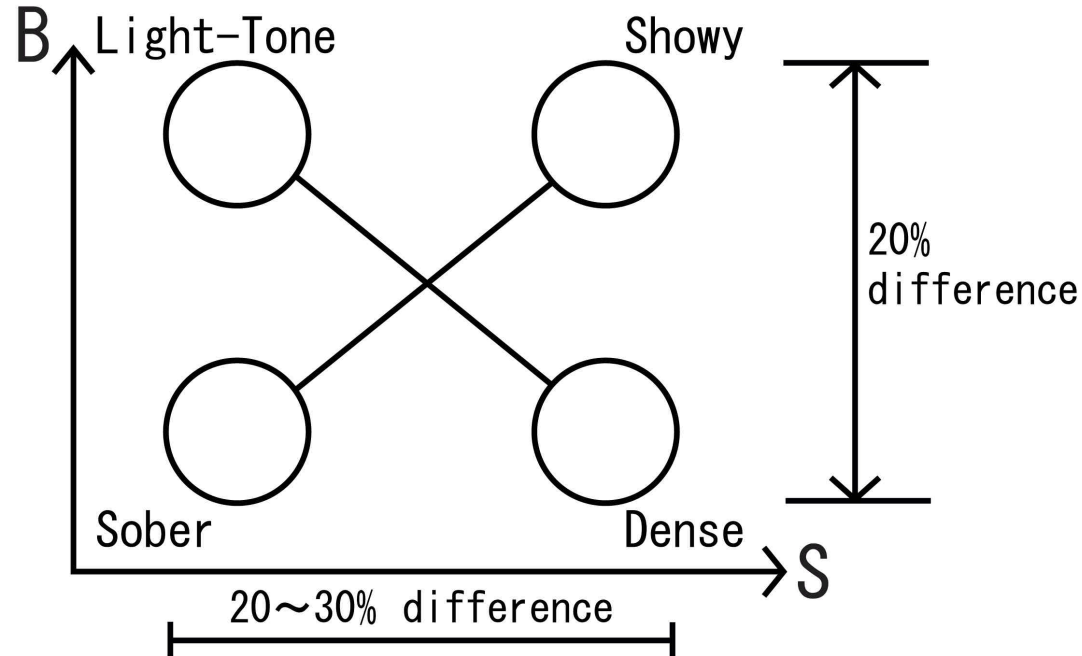


Color Selection Rule for Photoshop(2)

- Type B

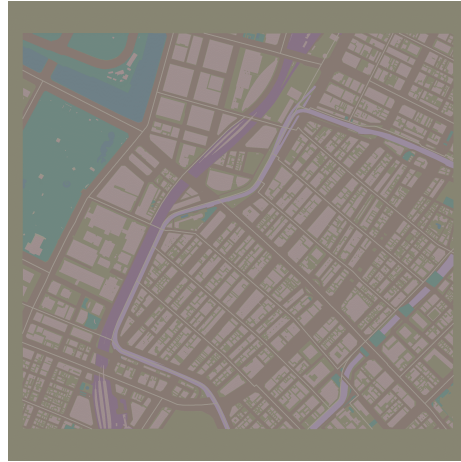
H : to be selected by psychological test

B and S : as given below



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

Sober



Romantic



Elegant

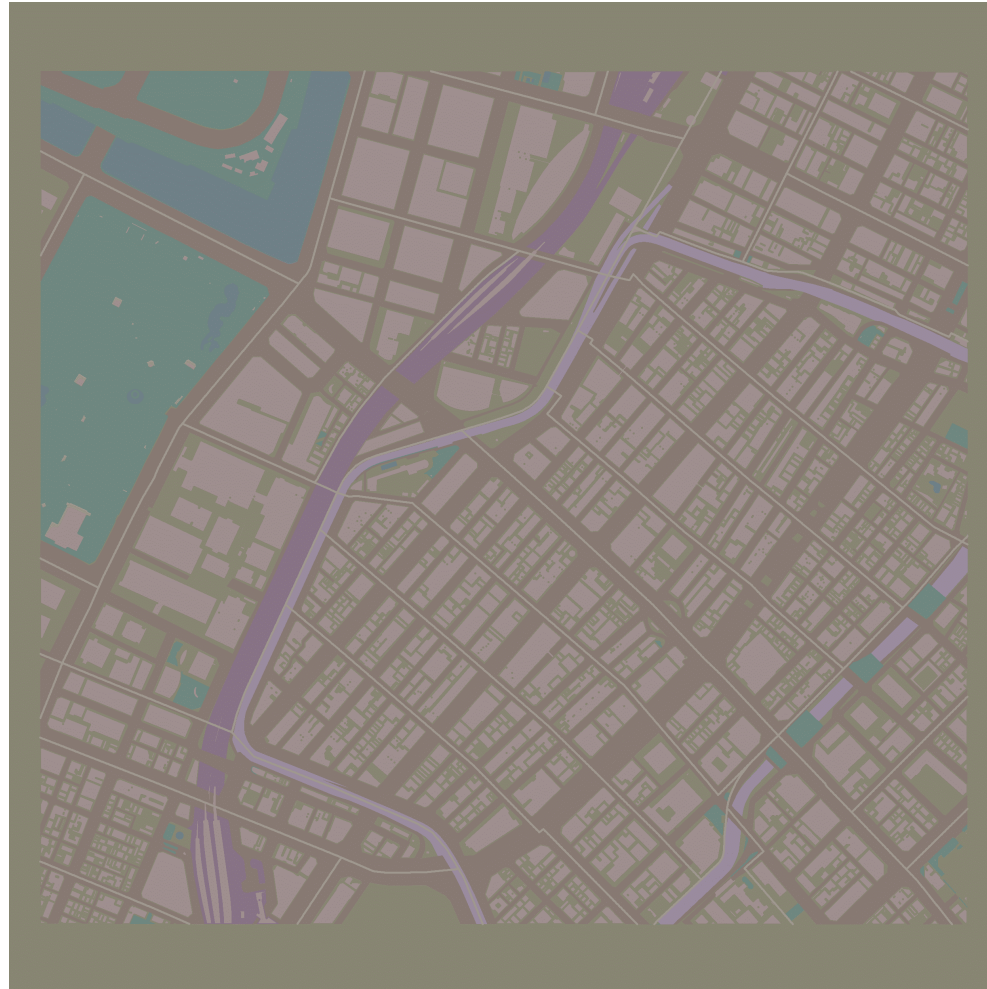


Dynamic



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



Young



Cool



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

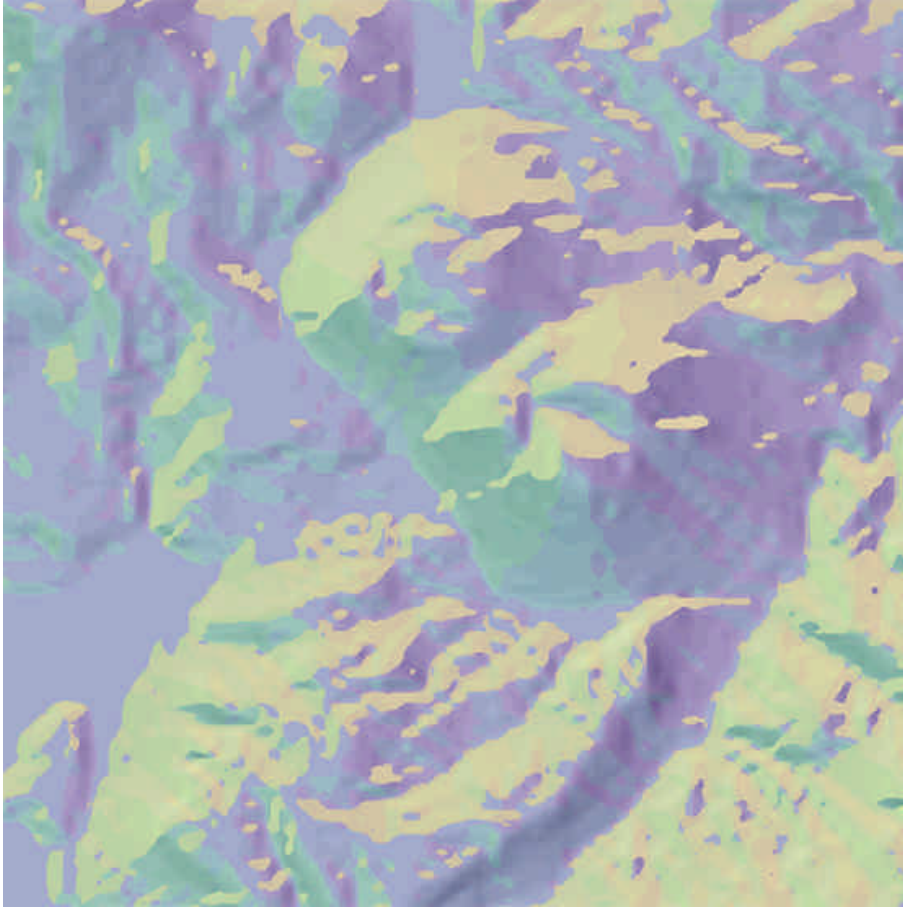
Gorgeous



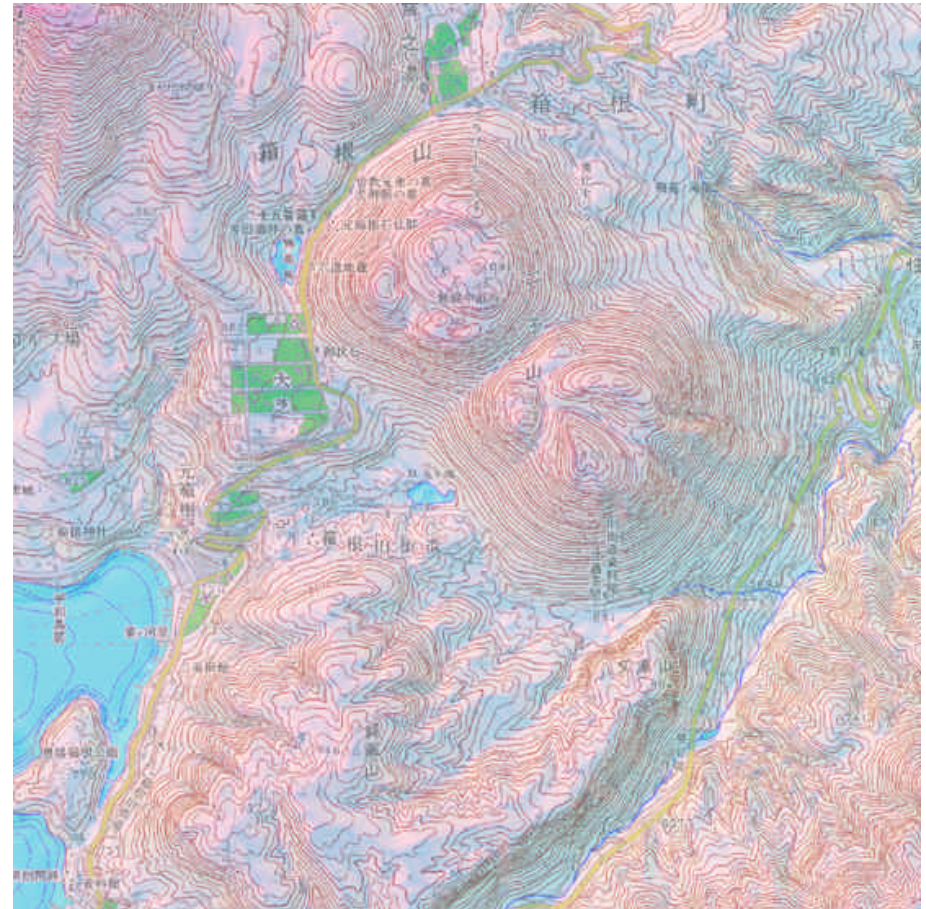
Examples of Kansei-based Visualization Techniques developed by Chuo Map Co., Ltd.

- 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

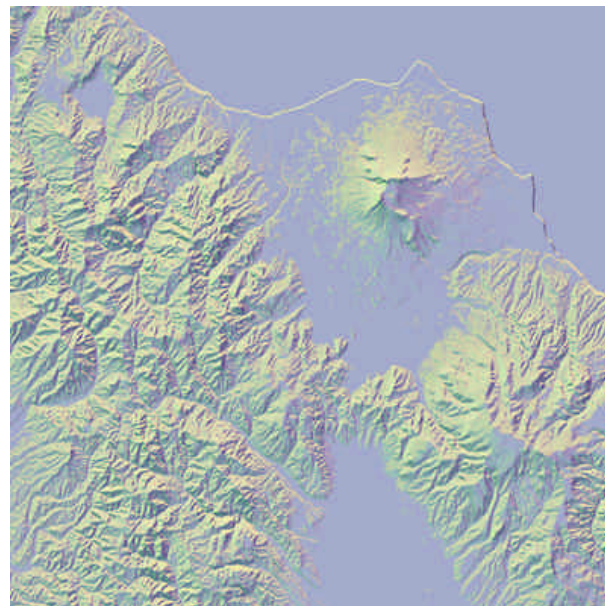
Color Hill Shading



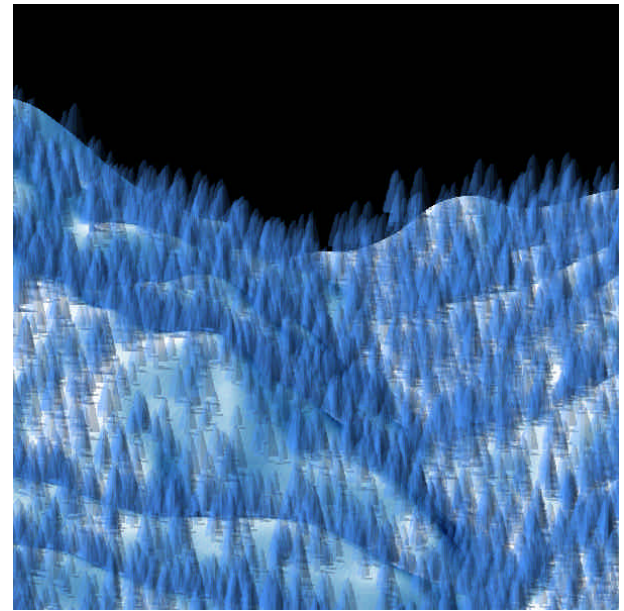
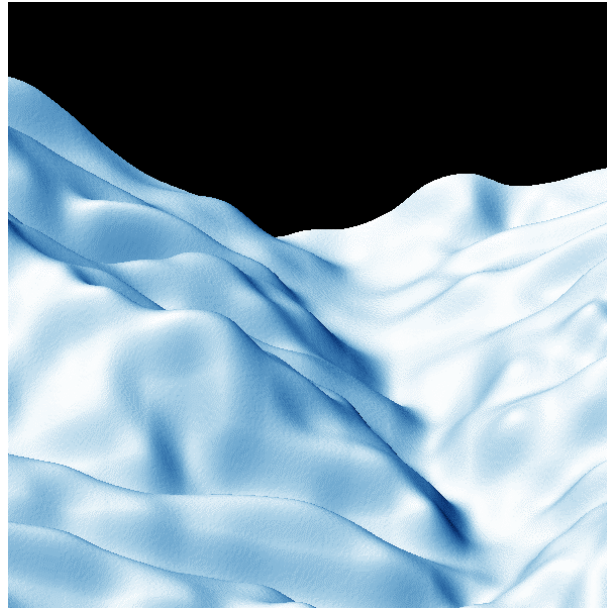
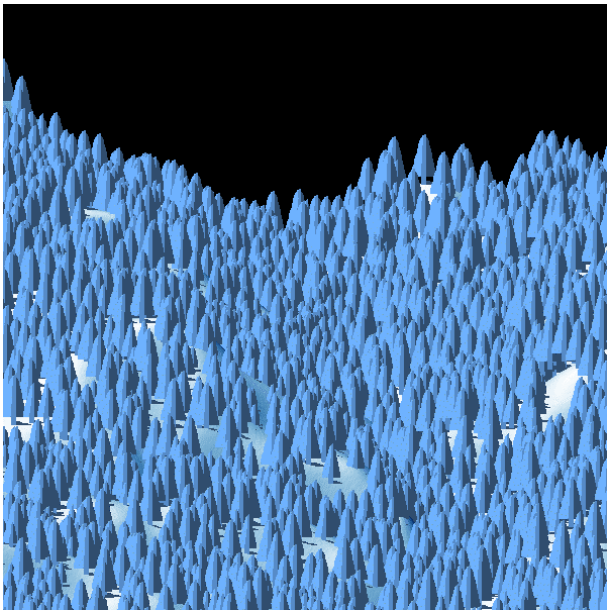
Color Composite of Topographic Information



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

Availability of Software

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