The Art and Science of Depiction

Representation Systems

Fredo Durand
MIT: Lab for Computer Science

Rouen revisited

- Paul Debevec

Assignments for Monday 23.

- Solso *Cognition and the Visual Arts*
  - Chapter 7
- Essay
  - Peer review
  - Final essay
- Final project
  - subject

Plan

- A paradigm: Cartography
- Representation systems
  - Drawing and projection
  - Denotation
  - Tone & color

Digression: infamous “Paradigm”

- A personal pet-subject
- Paradigm:
  - An outstandingly clear or typical example or archetype
- After Thomas Kuhn, *The Structure of Scientific Revolutions*
  - A philosophical and theoretical framework of a scientific school or discipline within which theories, laws, and generalizations and the experiments performed in support of them are formulated
- Vocabulary inflation (see also “framework”)

A paradigm: Cartography

- A map is a depiction of a reality
- Can be more efficient than photo
- There is no perfect universal solution
- However, quantitative is more important than for most pictures
- The systems are usually explicit
- And same issues as studied before (Gestalt, etc.)
- Amount of detail
### Map making
- Which information will be represented
- Projection
- Which kind of symbols will be used
- Color codes

### Projection
- Buckminster Fuller
**Projection & distortion**

- Limitations: contrast & palette

**Projection & distortion**

- Limitations: contrast & palette

**Distortion and politics**

- New Look at the World
  - Limitations: contrast & palette

**Topological map**

- Beck’s map of London underground, 1931

**Topological map**

- Itinerary, 13th century

**Geographical map**

- London underground

- Limitations: contrast & palette

**Topological map**

- Limitations: contrast & palette
**Metaphoric Projection**

**Error: Columbus's map**

**Error/choice/distortion**
- Descelier, 1546

**Error/choice/distortion**
- Descelier, 1546
- E.g. huge elephant

**Map making**
- Which information will be represented
- Projection
- Which kind of symbols will be used
- Color codes

**Denotation**
Denotation

Limitations: contrast & palette

Denotation

Limitations: contrast & palette

Denotation

Limitations: contrast & palette

Symbols: dimension

Limitations: contrast & palette

Denotation: a complete example

Limitations: contrast & palette

Denotation

Limitations: contrast & palette
Map making

- Which information will be represented
- Projection
- Which kind of symbols will be used
- Color codes

Symbols: dimension & tone, color

Color: elevation

Color: geology

Color: influence of cities

Ambiguity: color or denotation?
A complex example

- Population of the Bay Area

Plan

- A paradigm: Cartography

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Representations systems

- John Willats
  *Art and Representation: New Principle in the analysis of pictures* 1997

Goals and context

- Coarse-grain description of style
- Independent systems, independent decisions
- Description and comparison
- Synthesis (NPR)

- This is an exploratory system!
  - In progress
  - Incomplete
  - Different categories may overlap
- More a vocabulary

Representation systems

- Drawing and projection
- Denotation
- Tone & color

- The two first systems are classical
- Because painting was the only recognized art form

Drawing system

- Linear perspective
- Orthographic
- Topological
- Other
**Drawing system**

- Linear perspective
  - *Interior of St Bavo's church at Haarlem*, Pieter Jansz Saenredam, 1648
- Orthographic
- Topological
- Other

**Drawing system**

- Linear perspective
- Orthographic
  - Brooks-Greaves
    - *St Paul's Cathedral*
    - 1928
- Topological
- Other

**Drawing system**

- Linear perspective
- Orthographic
- Topological
  - Paul Klee
    - *Another Camel*
    - 1939
- Other

**Drawing system: symbolic**

- Linear perspective
- Orthographic
- Topological
- Other
  - Piero de la Francesca
    - *Mercy*

**Representation systems**

- Drawing and projection
- Denotation
- Tone & color

**Denotation system**

- Silhouette:
  - 2D (regions)
- Line Drawing
  - 1D (lines)
- Optical
  - 0D (points)
**Denotation system**

- Silhouette:
  - 2D (regions)
  - Picasso, *Rite of Spring*
- Line Drawing
  - 1D (lines)
- Optical
  - 0D (points)

**A fourth denotation system**

- Sculpture
  - 3D (volume)
  - Picasso, *Head of a Woman (Fernande)*, 1909
- Silhouette:
  - 2D (regions)
- Line Drawing
  - 1D (lines)
- Optical
  - 0D (points)

**Representation systems**

- Drawing and projection
- Denotation
- Tone & color

**Tone & color system**

- (Often a mix)
- Extrinsic
- Intrinsic
- Symbolic
Extrinsic color
- Renzo Piano Tjibaou cultural center 1991-98

Extrinsic black and white
- Gordon Park, Red Jackson Gang Leader

Optical intrinsic
- Boticelli Primavera 1482

Pure intrinsic colors
- Jawlensky Girl with Peonies +symbolic+harmony

Next sessions
- Linear perspective
- Canonical view
- Drawing systems
- Distortion and constraints