Erwin Raisz’ Atlases – an early multi-method approach to cartographic communication

(Eric Losang)

ICC-Preconference-Workshop: Atlases and Infographics
Tokyo, 2019/07/13
Outline

• Erwin Raisz – biography and opus
• The concept behind Raisz’ work
• Three Atlases
  • Atlas of Global Geography
  • Atlas of Cuba
  • Atlas of Florida
• Possible Importance of the three Atlases
  • Communication
  • Storytelling
Biography

- * 1 March 1893, Lőcse, Hungary
- 1914 degree in civil engineering and architecture Royal Polytechnicum in Budapest
- 1923 Immigration US
- 1924/1929 Master/Ph.D. Geology, Columbia University
- 1931 Institute of Geographical Exploration at Harvard University (proposed by W. M. Davies, teaching Cartography)
- 1938 General Cartography (first cartographic textbook in English)
- 1951 Clark University, Boston; from 1957 University of Florida
- + 1968, Bangkok while travelling to the IGU in Dehli.
Landform (physiographic) Maps

• Influenced by W.M. Davies, I. Bowman and N. Fenneman (physiographic provinces)
• Goal: explaining territory within its physiographic instead of (man made) county borders
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Statistical atlas of the United States 1898
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Landforms of the Northwestern States, 1941
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• Maps: what you see rather then what you count
Lobeck, A.

Things Maps Don't Tell Us 1957
Browse our selection of maps for sale from locations around the world.

- **Landforms of the United States**
  - $10.00 – $35.00

- **Landforms of the United States with a Generalized Section**
  - $8.00

- **Landforms of the Northwestern United States**
  - $12.00
Comprehensive geographic information

- Maps that show the world as it physiographically is
- Statistical graphics that unveil human impact
- Pictorial elements to show peculiarities or stereotypes
- Maps/drawings of historical sites
- Texts interconnecting the elements
- Focus on relevant information
- Appropriate use of cartographic techniques (projection, generalisation)

(Raisz, 1942)
Infographic

An infographic is a multi-section visual representation of information intended to communicate one or more specific messages.

(Cairo, 2016)
Iconic
A good infographic

• 1. ... is **truthful**, as it’s based on thorough and honest research.

• 2. ... is **functional**, as it constitutes an accurate depiction of the data, and it’s built in a way that lets people do meaningful operations based on it.

• 3. ... is **beautiful**, in the sense of being attractive, intriguing, and even aesthetically pleasing for its intended audience.

• 4. ... is **insightful**, as it reveals evidence that we would have a hard time seeing otherwise.

• 5. is **enlightening** because if we grasp and accept the evidence it depicts, it will change our minds for the better.
**Around the world**

What you need to know, in terms of numbers and figures, about the seven-team, nine-leg competition, which starts on Saturday.

- **Race route (nm= nautical miles)**
  - 38,738nm (71,500km) total
  - Leg 6: 6,716km (3,539nm) longest leg
  - Four oceans crossed

- **Rear route**
  - 38,738nm (71,500km) total
  - Leg 6: 6,716km (3,539nm) longest leg
  - Four oceans crossed

- **The boat and its replacement sail**
  - 12,500kg
  - 40 knots vs 20 knots
  - One design
  - Built around media
  - Stronger machines
  - Improved competition
  - Reduced cost

- **The sailors**
  - 36,000 shore crew and day
  - 5,241kg
  - 8 sailors
  - 5,000 calories a day
  - 50 liters of water per day
  - 12 man-crew
  - Five hours on deck
  - Four hours on standby
  - Four hours on duty

- **Hazard of the race**
  - Extreme temperatures
  - Icebergs
  - Huge waves

- **Six continents visited**
  - Europe
  - Africa
  - Asia
  - North and South America
  - Oceania

- **The sailors**
  - Seven matching sailors
  - Two boat owners
  - Seven shore team crew members

- **The boat**
  - 20 metres (about the size of a fire canoe)
  - 7 man-crew
  - Marine life
  - Holes

- **Positions on board**
  - Bowman (the prober)
  - Crew (the loader)
  - Helm (the navigator)
  - Chief (the skipper)

- **Clothes**
  - Warm weather
  - Cold weather

- **Food**
  - Fresh drill meals
  - Frozen dehydrated meals

- **Requirements for all sailors**
  - Safety training
  - First aid equipment

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Example
How infographics work

All Elements are visible (no split over several pages, no hidden folded sections)

• Superfluous information is omitted
• Semantic relation
• 'Spatial‘ relation (sequence, reading direction)
• Semiotic relation (color/patterns)
Comprehensive geographic information

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(Raisz, 1942)
The three Atlases of Erwin Raisz

- Atlas of Global Geography 1944
- Atlas de Cuba 1949
- Atlas of Florida 1964
The Air Age

This atlas is somewhat different from the usual atlas. Most maps are „global“, or more exactly, they are drawn in oblique projection. […] It shows the „geographic landscape“

(Atlas of Global Geography, Preface)
Atlas of Global Geography - Examples
Atlas of Global Geography - Examples

Where?

Australia was settled only 150 years ago by Great Britain. The early settlement faced a hot country with low mountains, inhabited by strange animals and primitive natives.

Economy

Between the Pacific and India, the countries of the southern continent have valuable natural resources. These include spices, minerals, and timber. The countries are known for their rich soil and fertile lands. The economies of these countries are heavily dependent on agriculture and mining.

History

Australia was settled only 150 years ago by Great Britain. The early settlement faced a hot country with low mountains, inhabited by strange animals and primitive natives.

Particularities

Australia is a vast country with a diverse climate ranging from tropical rainforests to arid deserts. The country is home to a unique flora and fauna, including the iconic kangaroo and koala.

Stereotypes

Australia is often stereotyped as a land of beaches, surf, and袋鼠. However, the country is far more diverse, with a rich history and culture that spans hundreds of years.

Conclusion

In conclusion, the Atlas of Global Geography provides a wealth of information on the world's geography, history, economy, and culture. It is a valuable resource for anyone interested in learning more about the world.
Atlas of Global Geography - Examples
What is where and how far is it away?
What is where and how far is it away?
Atlas de Cuba - Example
Atlas of Florida - Example
Atlas of Global Geography – Two Parts

“Problems that are world wide in scope are thrust upon us suddenly and unexpectedly today. Since our immediate need is to understand these problems, the second part of this atlas is devoted to the geography of world problems-geopolitics, disease, hunger, poverty, overpopulation, etc. -presented by means of cartograms.”
Atlas of Global Geography – Two Parts
Atlas of Global Geography – Two Parts

Density of Population

Overpopulation

Population Problems

Geopolitics of the Air Age

Visualisation methods

Cartographic techniques
Atlas of Global Geography – Two Parts

(adapted) Cartographic techniques

Atlas de Cuba - Examples
Atlas of Florida - Example

44-45. CULTURE

In Florida, nature and art combine to create a unique cultural experience for both the tourists and the local residents. Notably, nature is the focus on the north shore, where natural beauty is the main attraction. On the west coast, the beaches are a major draw, offering relaxation and recreation. The cultural diversity is evident throughout the state, with each region offering its own unique blend of arts and culture. From the art galleries to the museums, Florida is a hub for cultural experiences. The state is also famous for its festivals and events, which attract people from all over the world. The Florida Keys are a popular destination for artists and musicians, offering a vibrant community of creatives. The historic areas of the state, such as St. Augustine, are also a draw for tourists interested in American history. The Native American culture is also an important part of Florida's heritage, with many tribes still thriving today. The natural beauty of the state, combined with the cultural diversity, makes Florida a unique and fascinating place for visitors of all backgrounds.
Important development

• Breaking up the prevailing structural division of atlases (maps/texts/graphics-parts)
• Inclusion of lately achieved/revived visualisation methods
• Integration of both stereotypes (recognition effect) and explanatory drawings
• Position of several entry points for the user to unveil complex information
• Enabling storytelling
Herbert Bayer: Geo-Graphic Atlas 1953
ASTRONAUT'S VIEW OF FLORIDA
Doumo arigatou gozaimasu!

Thank you!

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