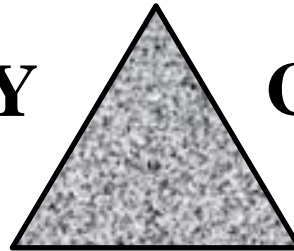# Bildatlas

Alexander Wolodtschenko

Selected Synthesis Aspects
in

CARTOGRAPHY CARTOSEMIOTICS

ATLASGRAPHY

Dresden

2023

Table of contents

1. Introduction

The photoatlas "Selected Synthesis Aspects in Cartography, Cartosemiotics and Atlasgraphy" continues a series of thematic photoatlases from the Bildatlas collection of A. Wolodtschenko:
(https://atlas-semiotics.jimdofree.com/bild-atlantothek/)

This photoatlas is based on the author's new presentation "On atlas cartography, atlassemiotics and atlasgraphy" at the ICA Spring 2023 symposium in Olomouc, Czech Republic.
The presentation focused on selected aspects of carto/atlas related synthesis. The atlas shows only selected examples of the synthesis of interdisciplinary characters.

2. Symposium ICA Spring 2023 in Olomouc, Czechia

Department of geoinformatics (prof. Vit VOŽENÍLEK), Palacký University in Olomouc, Czechia organized "SYMPOSIUM ICA SPRING OLOMOUC 2023. ATLASES: THEIR DESIGN AND USE" in cooperation with ICA Commissions on Atlases, Map Design and User Experience and under the auspices of Czech Cartographic Society. The three-day symposium took place from 3rd to 5th April 2023.
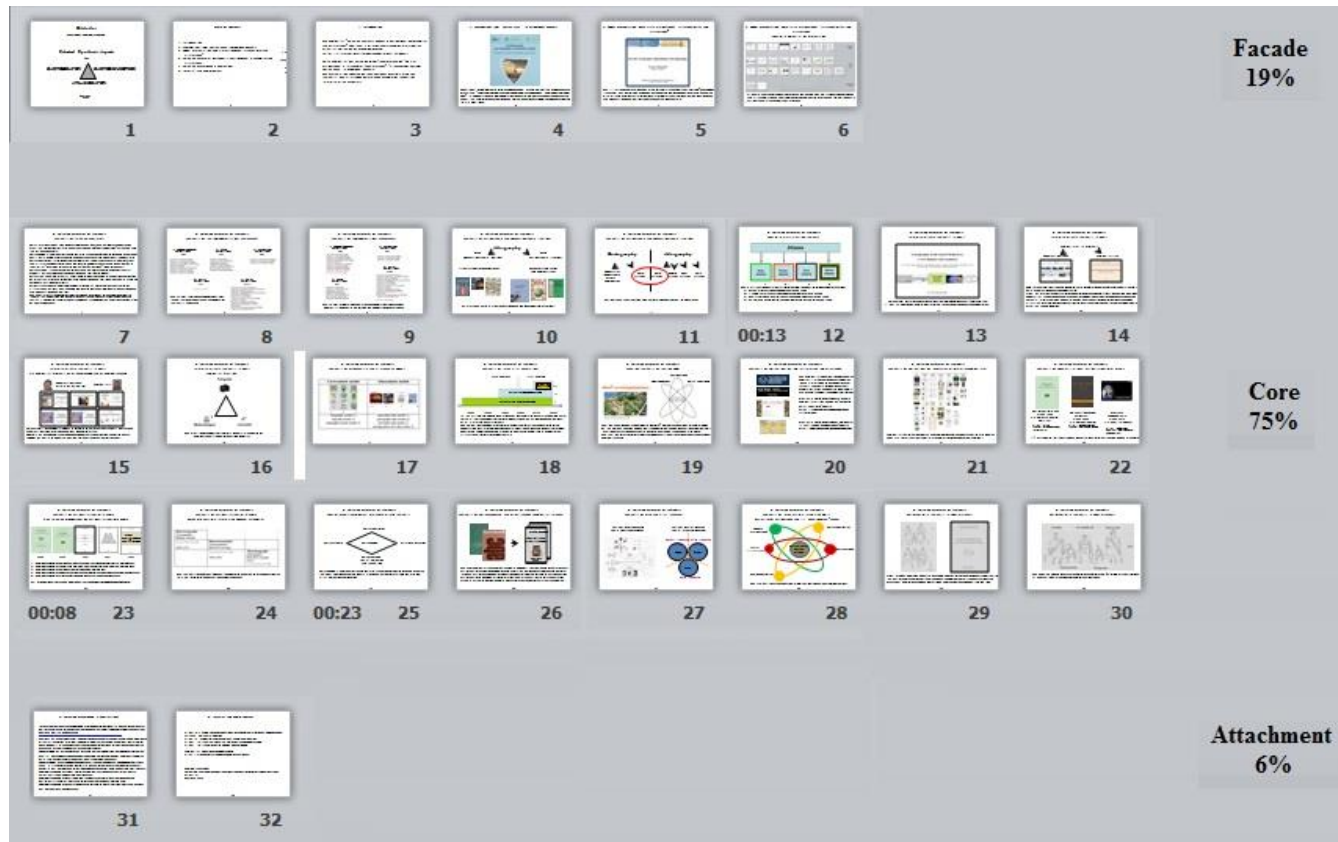
3. About Presentation „On atlas cartography, atlassemiotics and atlasgraphy"
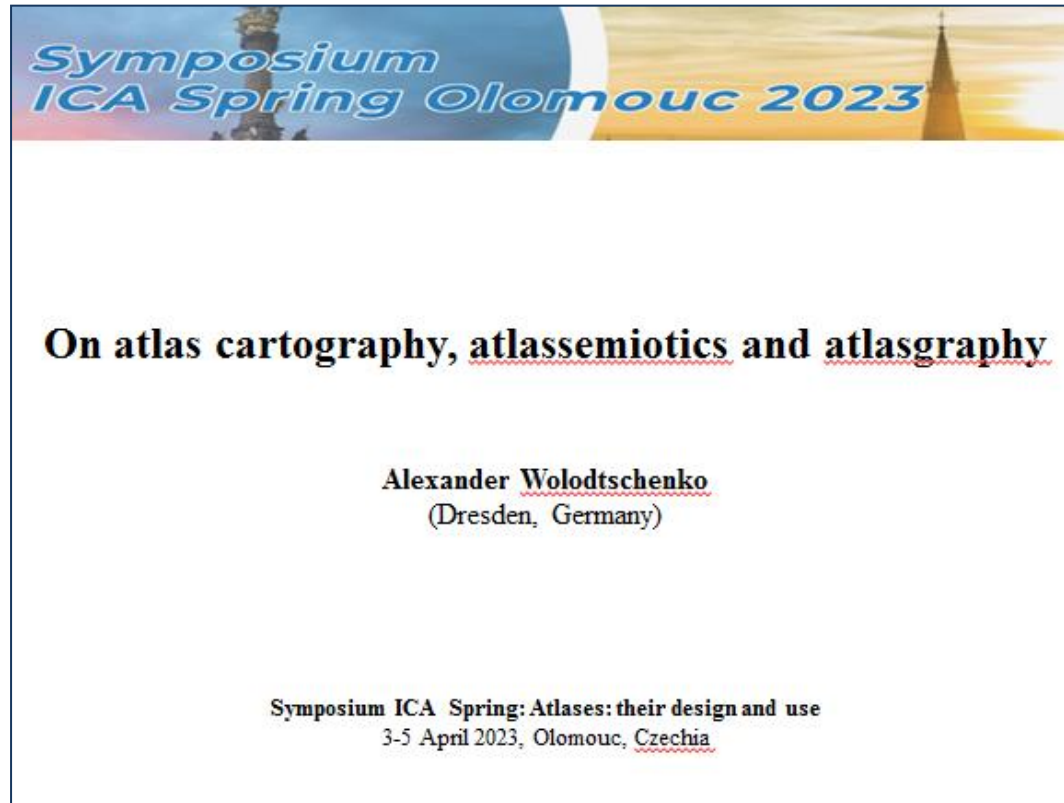
The title slide of presentation „On atlas cartography, atlassemiotics and atlasgraphy". This presentation informs on the appearance and development of three selected interdisciplinary directions - atlas cartography, atlassemiotics and atlasgraphy, the role of cartographic and non-cartographic traditions and meta-scientific tendencies, etc.

3. About Presentation „On atlas cartography, atlassemiotics and atlasgraphy
Semiotic potential of presentation

Slide-related semiotic potential of presentation includes three parts: facade (19%), core (75%) and attachment (6%). 24 slides form the core of presentation with selected synthesis aspects in cartography, atlassemiotics and atlasgraphy.

4. Selected examples of synthesis
Synthesis of selected new terms

Atlas cartography is a section of cartography that deals with the theory and practice of creating (cartographic) atlases. Scientific use of the term "Atlas cartography" has existed since the mid-20th century.

Atlasgraphy is a new discipline that deals with the theory and practice of creating atlas models with cartographic and non-cartographic traditions or profiles.

Atlaskunde (in German) or science of atlases is a new semiotic-based academic discipline that deals with theory, history and practice of design, analyzes and collection all types of atlases

Atlassemiotics is a section of applied semiotics that studies and analyzes all types of atlases and atlas-like models for scientific and practical purposes.Scientific use of the term "Atlas semiotics" dates back to the 2010s and the term "Atlasgraphy" to the early 2020s.
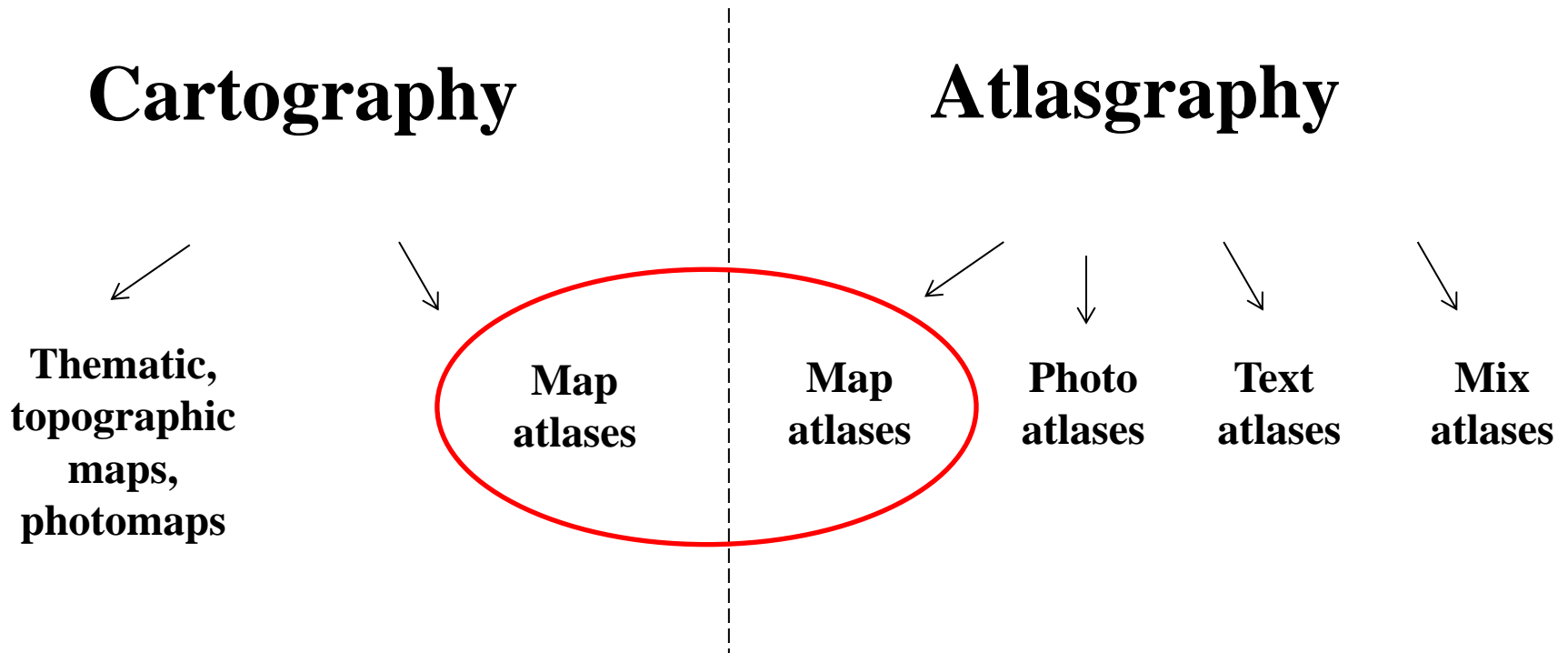
Atlassing (with two letters s) is a new interdisciplinary direction in the creation and research of diverse atlases (with cartographic and non-cartographic traditions). Atlassing as a trend has European cartosemiotic roots.

Bildatlasgraphy (in German) or photoatlasgraphy is a new discipline and a section of atlasgraphy that deals with the theory and practice of creating photoatlases with cartographic and non-cartographic traditions.

The new terms **atlassemiotics and atlasgraphy** are products of the evolution process in theoretical cartography and semiotics of the 21st century. They are focused on study and analysis conceptual semiotic and epistemological transformations with creation and acquisition of new knowledge.

4. Selected examples of synthesis
Synthesis of cartographic and non-cartographic traditions

Cartography

Atlasgraphy

Thematic, topographic maps, photomaps

Map atlases

Map atlases

Photo atlases

Text atlases

Mix atlases

Cartography and atlasgraphy have the same subject of research: the **map atlases.**

4. Selected examples of synthesis
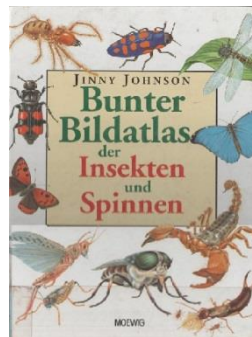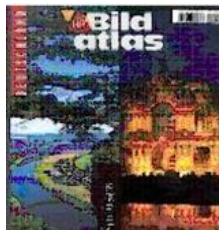## Synthesis of cartographic and non-cartographic traditions

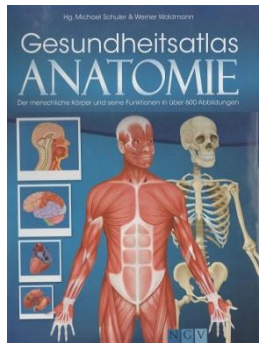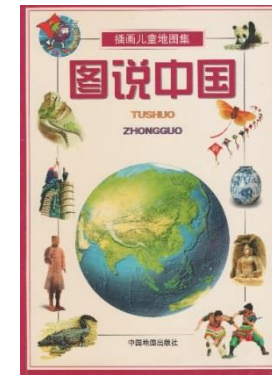# Atlasgraphy

40%
Non-cartographic traditions

60%
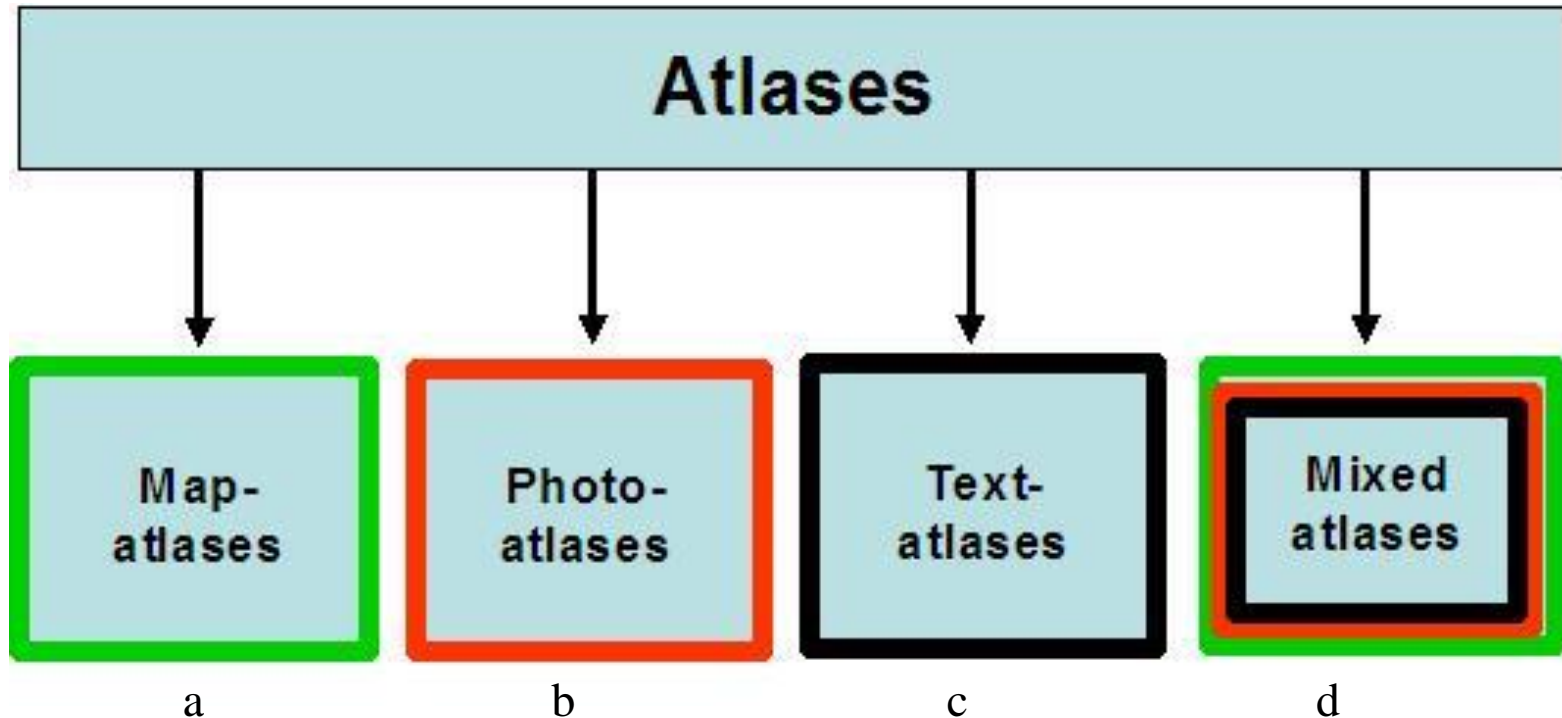Cartographic traditions

Illustrated atlases, Bildatlases

**Map-related atlases
and photoatlases**

Atlasgraphy unites all atlases with cartographic and non-cartographic traditions.

4. Selected examples of synthesis
Synthesis of cartographic and non-cartographic traditions
Semiotic classification

The classification of all atlases as semiotic models includes the following four main groups:
a) Map atlases (variable MAP dominates with > 50%)
b)) Photo atlases (the variable FOTO/BILD dominates with > 50%)
c) Text atlases containing text (the variable TEXT dominates with > 50%)
d) Atlases with mixed content (without dominance of a variable with > 50%).

4. Selected examples of synthesis
Synthesis of cartographic and non-cartographic traditions
Map-centric and atlas-centric models

Cartosemiotic models	Atlassemiotic models
cartographic models (1) map-lake models (2) cartographic-textual models (3)	map-related atlas models (1) photographic atlas models (2) text-related atlas models (3) mix(map-photo-text) atlas models (4)

4. Selected examples of synthesis
Interdisciplinary synthesis in praxis

Cartography in the Social Media Era:
A New Balance and Synthesis

D. R. Fraser Taylor, Romola V. Thumbadoo (Ottawa, Canada), Ilya Zaslavsky (San Diego, USA)
and Alexander S. Wolodtschenko (Dresden, Germany)

**Conceptions
Projects
Proposals**
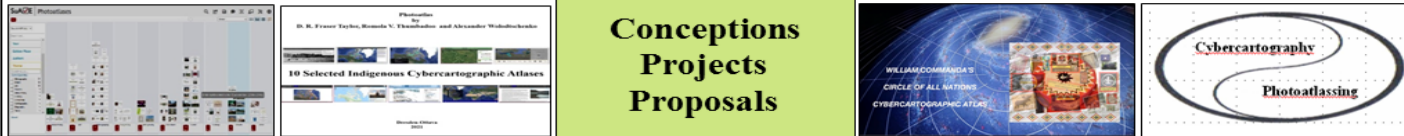
ICC 2021, Florence, Italy

Screenshot of start page of presentation at the ICA Conference 2021 in Florence, Italy.
It was an example of interdisciplinary synthesis with cybercartography and photoatlassing.

4. Selected examples of synthesis
Interdisciplinary synthesis in praxis
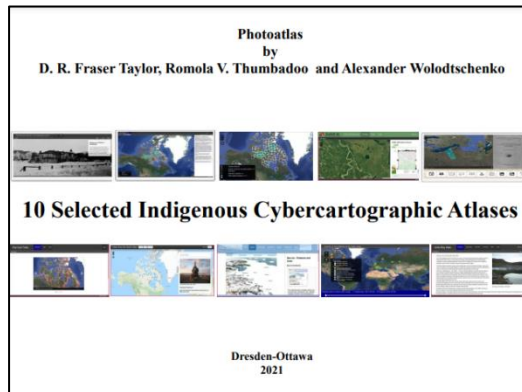
Photoatlases in projects

Cybercartography

Photoatlassing

Photoatlas
by
D. R. Fraser Taylor, Romola V. Thumbadoo and Alexander Wolodtschenko

10 Selected Indigenous Cybercartographic Atlases

Dresden-Ottawa
2021

Derivative Photoatlas

D. R. Fraser Taylor, Romola V. Thumbadoo, Ilya Zaslavsky and Alexander Wolodtschenko

Cybercartography and Photoatlassing Projects

Creation, Collection, Analysis

Dresden
2022
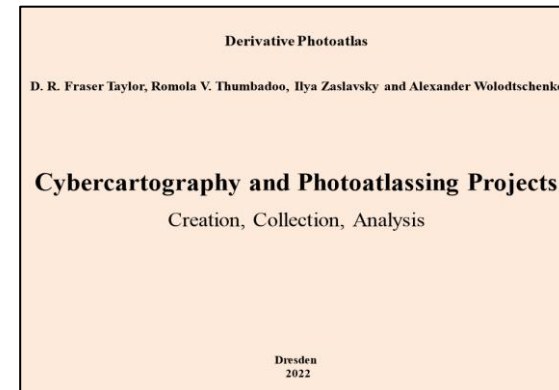
Two screenshots of title pages of photoatlses are examples of interdisciplinary synthesis in praxis with cybercartography and photoatlassing.

Prof. D. R. Fraser Taylor is author of Cybercartography concept (1997), founder and director of Geomatics and Cartographic Research Centre (GCRC), Department of Geography and Environmental Studies, Carleton University, Canada. The synthesis of cybercartography and photoatlassing (after Wolodtschenko 2021) characterizes a new phase of multidiscipline cooperation in practice and methodology.

4. Selected examples of synthesis
Interdisciplinary synthesis in praxis
Six photoatlas projects by R. Thumbadoo and A. Wolodtschenko

Cybercartography/
Circle of All Nations
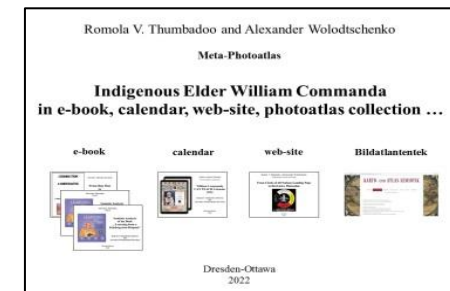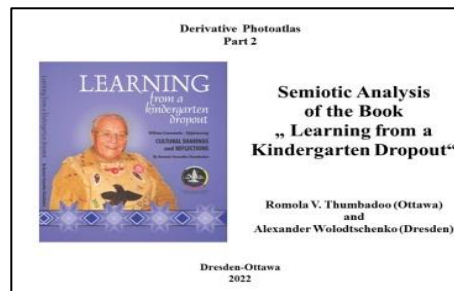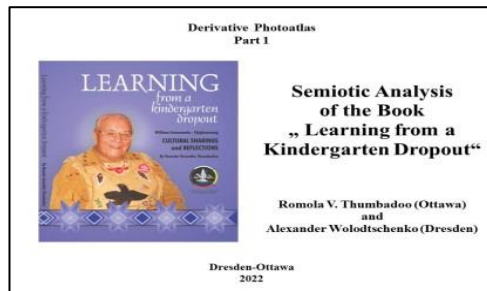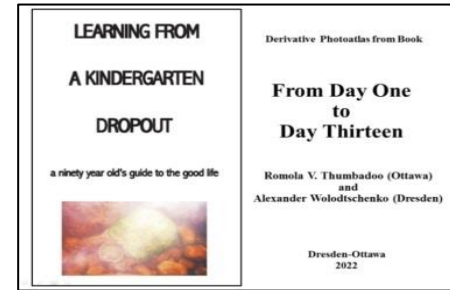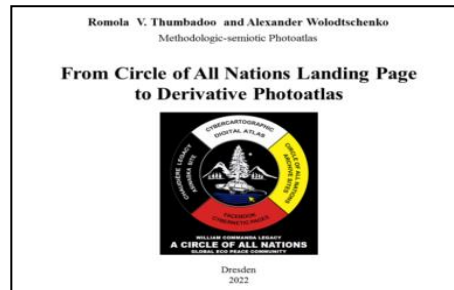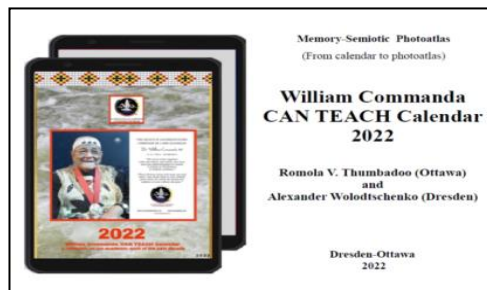
Photoatlassing

Memory-Semiotic Photoatlas
(From calendar to photoatlas)

**William Commanda
CAN TEACH Calendar
2022**

Romola V. Thumbadoo (Ottawa)
and
Alexander Wolodtschenko (Dresden)

Dresden-Ottawa
2022

Romola V. Thumbadoo and Alexander Wolodtschenko
Methodologic-semiotic Photoatlas

**From Circle of All Nations Landing Page
to Derivative Photoatlas**

Dresden
2022

LEARNING FROM
A KINDERGARTEN
DROPOUT

a ninety year old's guide to the good life

Derivative Photoatlas from Book

**From Day One
to
Day Thirteen**

Romola V. Thumbadoo (Ottawa)
and
Alexander Wolodtschenko (Dresden)

Dresden-Ottawa
2022

Derivative Photoatlas
Part 1

**Semiotic Analysis
of the Book
„ Learning from a
Kindergarten Dropout"**

Romola V. Thumbadoo (Ottawa)
and
Alexander Wolodtschenko (Dresden)

Dresden-Ottawa
2022

Derivative Photoatlas
Part 2

**Semiotic Analysis
of the Book
„ Learning from a
Kindergarten Dropout"**

Romola V. Thumbadoo (Ottawa)
and
Alexander Wolodtschenko (Dresden)

Dresden-Ottawa
2022

Romola V. Thumbadoo and Alexander Wolodtschenko

Meta-Photoatlas

**Indigenous Elder William Commanda
in e-book, calendar, web-site, photoatlas collection …**

e-book   calendar   web-site   Bildatlantentek

Dresden-Ottawa
2022

Screenshots of 6 photoatlas projects are examples of interdisciplinary synthesis in praxis with cybercartography, Circle of All Nations and photoatlassing.
Romola V. Thumbadoo is PhD Geography at the Geomatics and Cartographic Research Centre (GCRC) of Carleton University in Ottawa and the Circle of All Nations (Ottawa).

4. Selected examples of synthesis
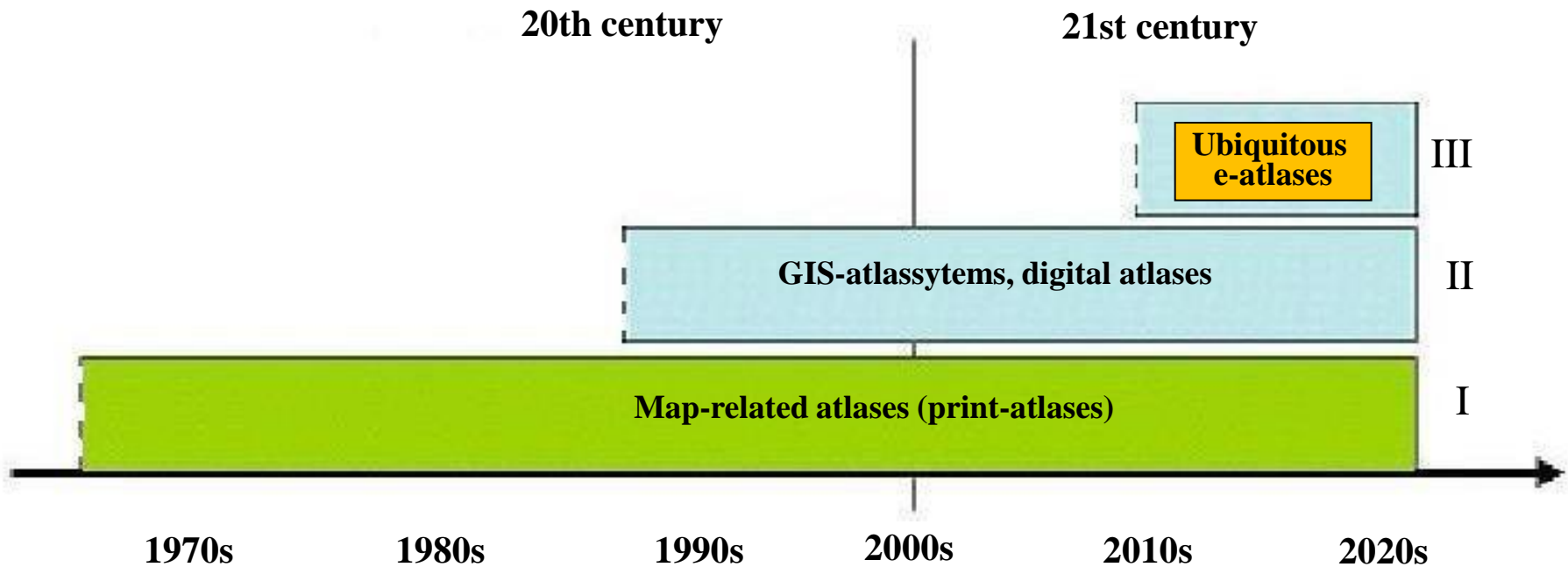## Interdisciplinary synthesis in praxis
Photoatlas creation

Fotograph

Media-designer   **Journalist**
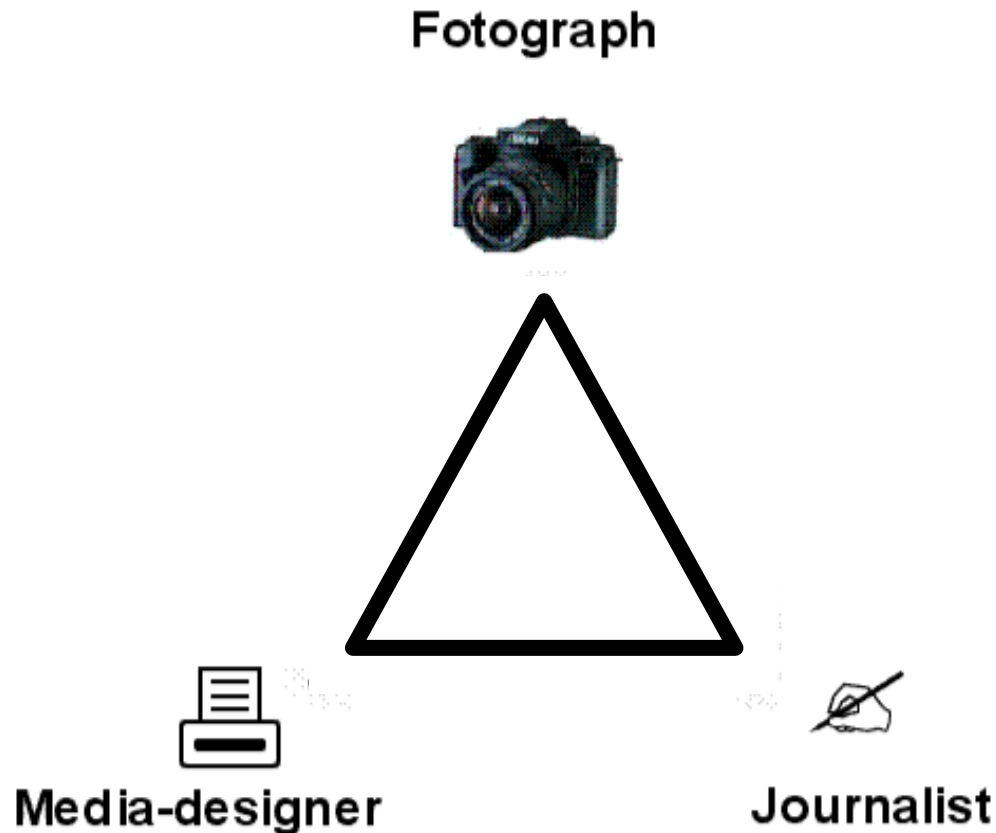
The creation of photoatlases requires a synthesis in the practice of
photographers, media designers and journalists.

4. Selected examples of synthesis
Synthesis of three atlas generations

20th century   **21st century**

| | Ubiquitous e-atlases | III |

GIS-atlassytems, digital atlases — II

Map-related atlases (print-atlases) — I

1970s   1980s   1990s   2000s   2010s   2020s

In the 21st century, modern society received a new generation of atlases - ubiquitous atlases (map atlases and photoatlases for smartphones and tablets) that complemented traditional print atlases and GIS atlas systems.

The ubiquitous e-photoatlases (for smart phones and tablets, etc.) belong to the **third generation** of atlases (Wolodtschenko 2012, 2020). The third generation of atlases brought **new terms and disciplines** into atlas-related practice and theory, such as: photoatlassing, atlasgraphy, semiotics of photoatlases, etc.

4. Selected examples of synthesis
Function synthesis of section UKA

Cartography

Environment   **Atlas semiotics**

Umwelt- und Karto-/Atlas-Semiotik
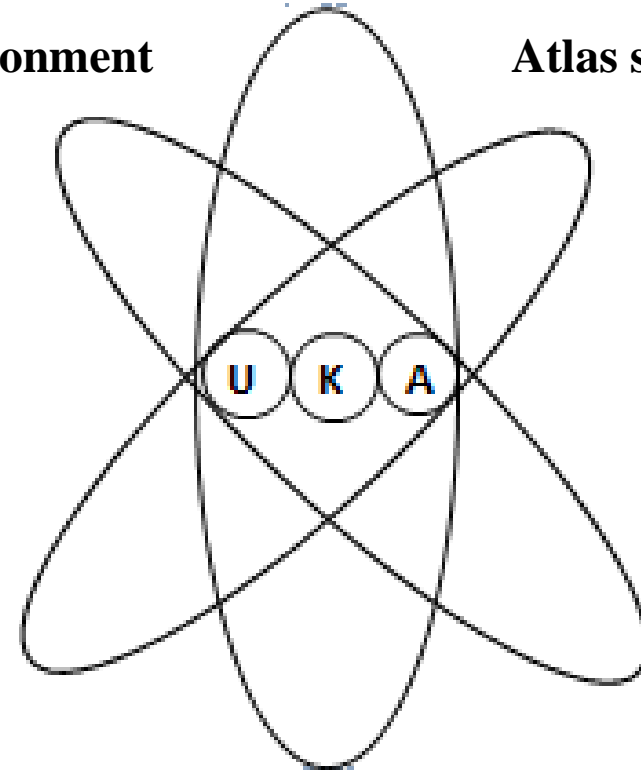
Section „Environment and Carto/Atlas Semiotics" (**U**mwelt- und **K**arto/**A**tlassemiotik/UKA) of the German Semiotic Association is a combi-section. Section connects three function levels: environment, cartography and atlas semiotics. The section is unique one in the world.
The section has cartosemiotic roots and founded 2015. Chairs are Monika Huch and Alexander Wolodtschenko.

4. Selected examples of synthesis
Synthesis of collections of two institutes and two private web

The photoatlas collection is supported by the TUD Institute of Cartography (approx. 100 image atlases stored on the computer center server) and Spatial Information Systems Laboratories of the University of California, San Diego (approx. 100 photoatlases stored).

A private collection of about 250 thematic photoatlases is available on the "Carto- and Atlas Semiotics" website.
**https://atlas-semiotics.jimdofree.com/bild-atlantothek/**

A private collection of about 25 photoatlases is available on the Monika Huch's website:
http://www.geokultur-erleben.de/buecher.html

4. Selected examples of synthesis
Synthesis of collections of storytelling thematical photoatlases

Photoatlassing collection from site by A. Wolodtschenko includes ca 250 Bildatlases of which 84% are storytlling atlases (https://atlas-semiotics.jimdofree.com/bild-atlantothek/).
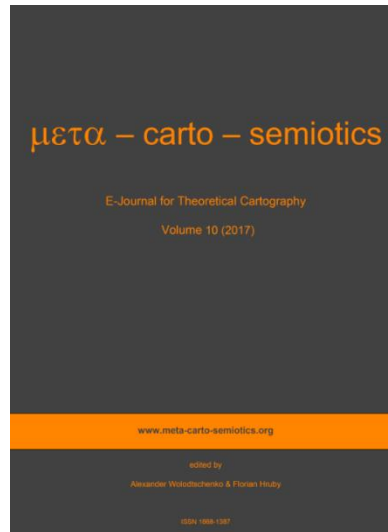
4. Selected examples of synthesis
Synthesis of non-institutional carto/atlassemiotics media
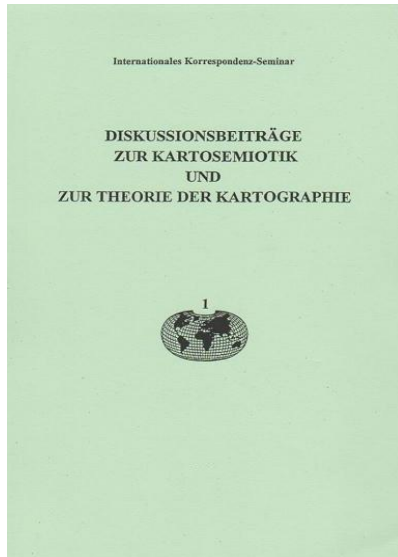
Cartosemiotic issue
Since 1998
(in German, English,
Russian)

https://atlas-
semiotics.jimdofree.com
/projekte/

Meta-carto-semiotics
e-journal
Since 2008
(in German, English)

http://ojs.meta-carto-
semiotics.org/index.php/mcs

Almanac
«Geocontext»
Since 2013
(in English, Russian)
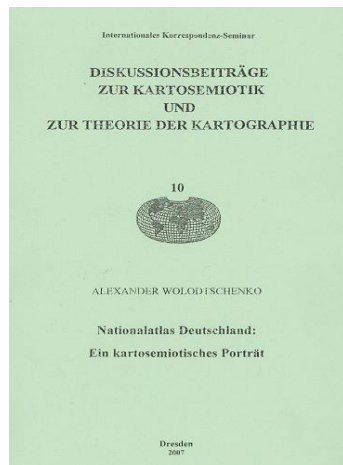
https://www.geo-
context.org/index.php/
geocontext

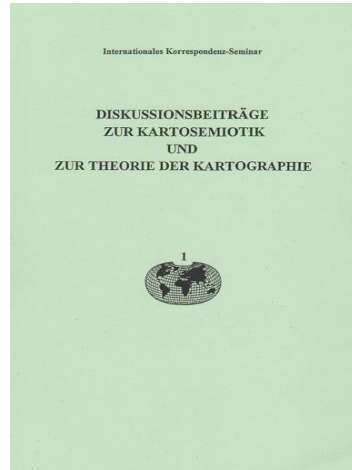It's paradoxical, but there are only 3 non-institutional carto/atlas semiotic e-media in the world.

4. Selected examples of synthesis
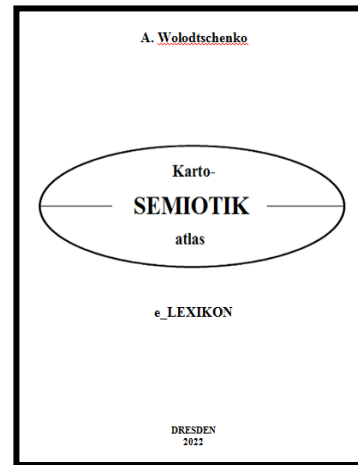## Synthesis of carto-atlassemiotic theory
Five selected monographs on carto-atlassemiotic theory
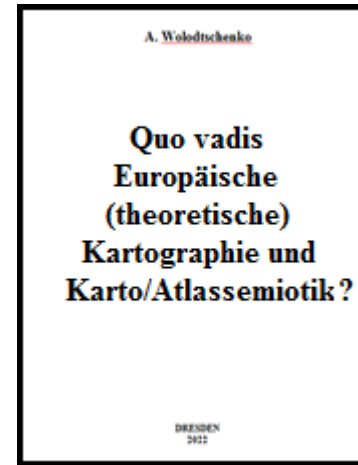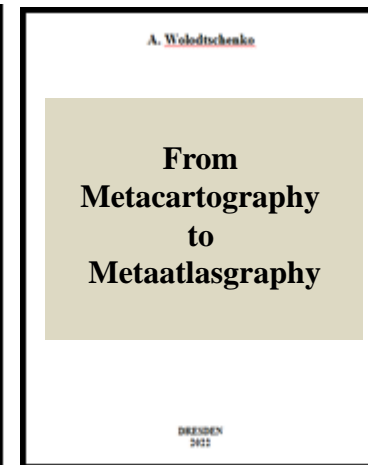
| **2007** | **2020** | **2021** | **2021** | **2022** |

1. Wolodtschenko, A.: Nationalatlas Deutschland: Ein kartosemiotisches Porträt. Dresden 2007.
2. Wolodtschenko, A.: Semiotische Evolution in der Kartographie und Atlassing. Dresden 2020
2. Wolodtschenko, A.: Karto-Atlassemiotik. Lexikon. Dresden 2021
3. Wolodtschenko, A.: Quo vadis Europäische Kartographie und Karto/Atlassemiotik? Dresden 2021
4. Wolodtschenko, A.: From Metacartography to Metaatlasgraphy. Dresden 2022

All monographes are available from: **https://atlas-semiotics.jimdofree.com/news-info/**

4. Selected examples of synthesis
Synthesis of map and atlas languages

System of map language
(with four sub-languages)
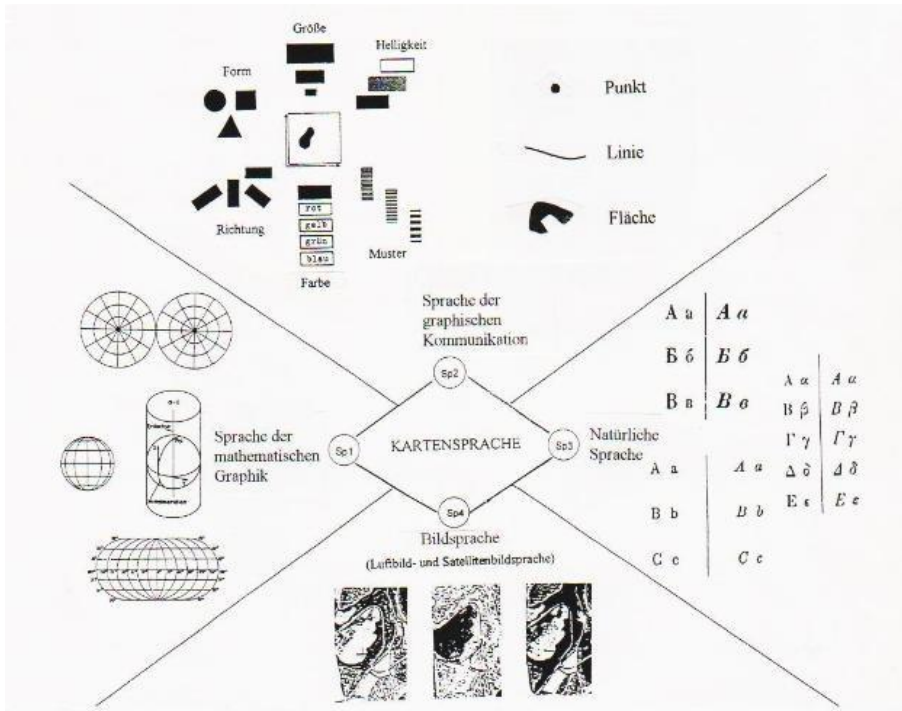
System of atlas language
(with three sub-languages)

Verbal language

Bild language

TEXT

BILD

MAP

Map language
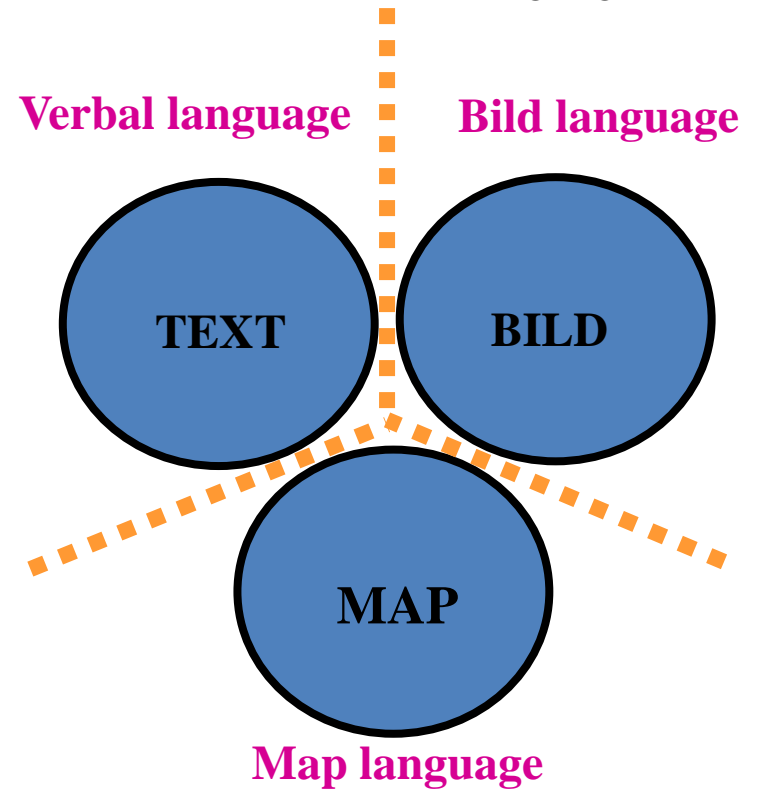
4. Selected examples of synthesis
Semiotic-epistemological meta-disciplinary synthesis

Atlassemiotics

Atlasgraphie   **Atlaskunde**   **History of atlases**

Atlantenthek
(Atlas collection
and reception)
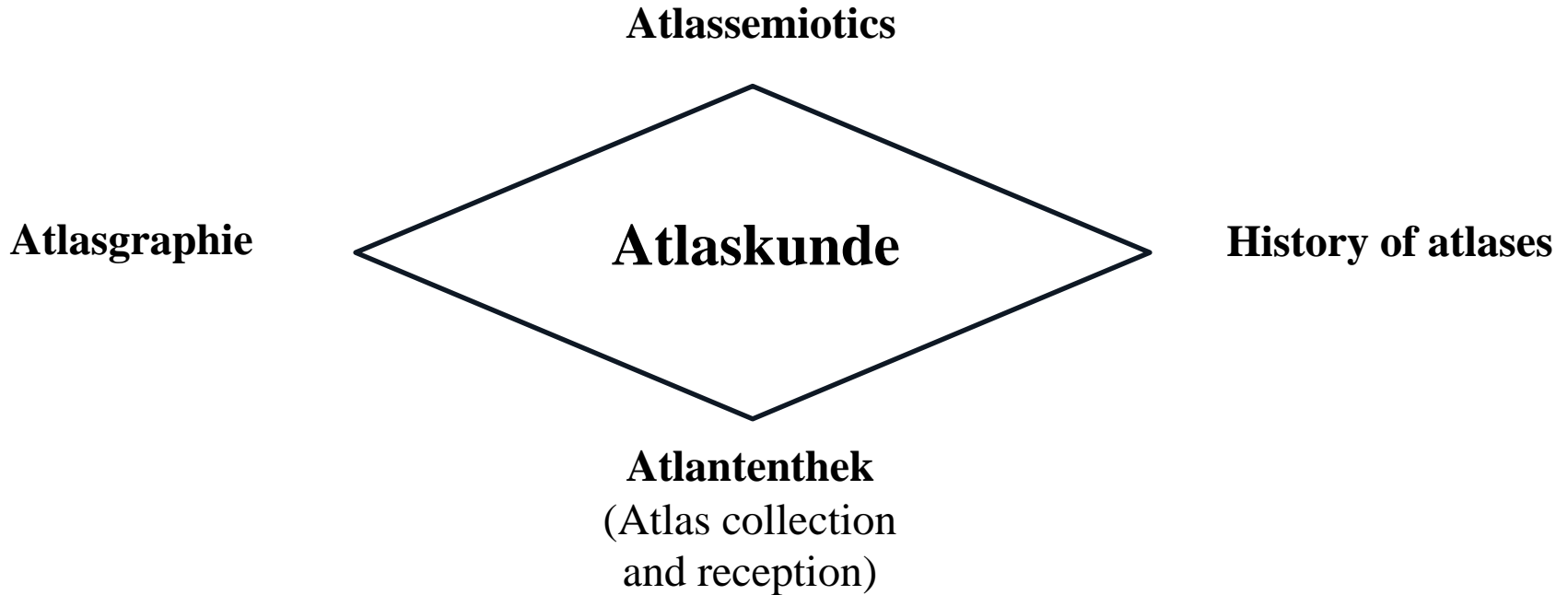
Atlaskunde (in German) or science of atlases is a new semiotics-based academic discipline that comprises four sub-disciplines or parts: atlasgraphy, atlas semiotics, history of atlases, and atlas collection and reception.

4. Selected examples of synthesis
Synthesis of Kartenkunde and Bildatlaskunde (photoatlas science)
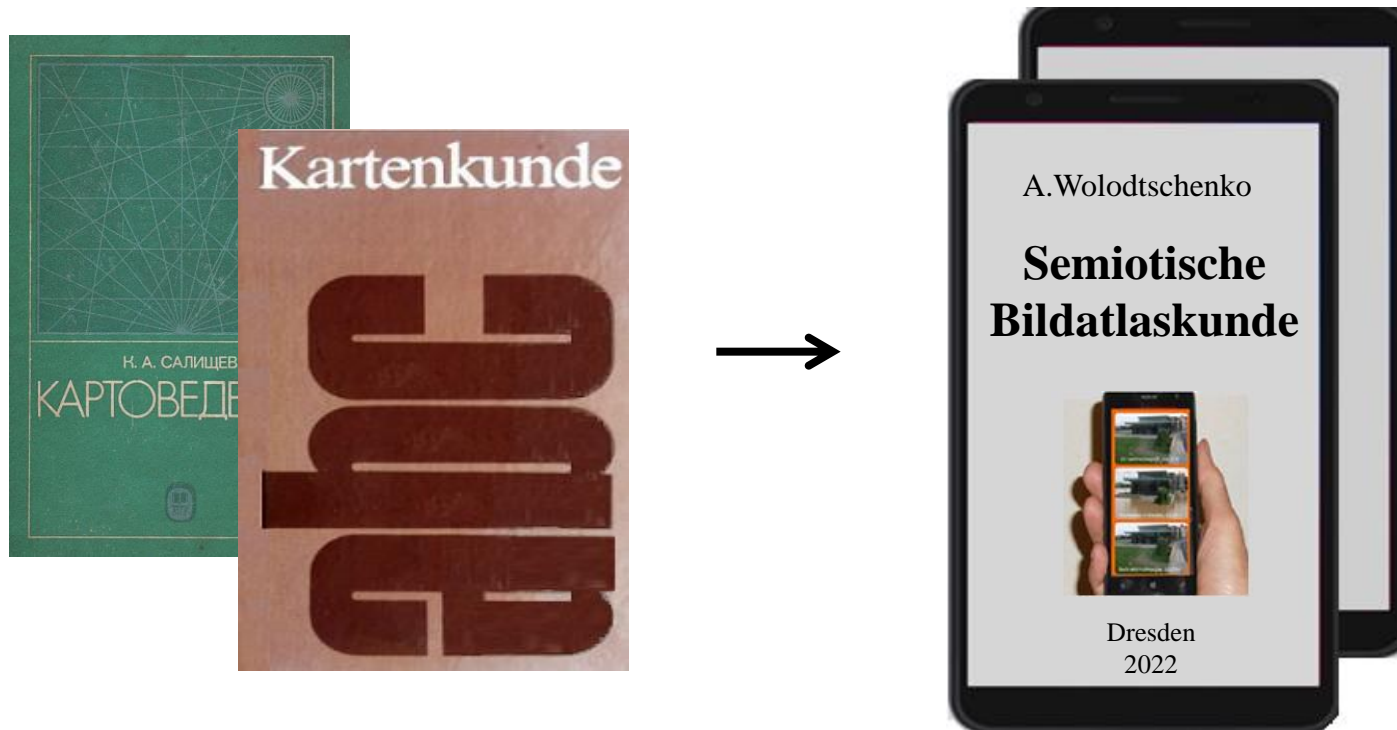
The new photoatlas science (Bildatlaskunde, in German) as a part of science of atlases reflects a cartosemiotic evolution (Wolodtschenko 2021) at the interface of cartography and semiotics through various development or conversion processes from cartography to atlasgraphy, from cartosemiotics to photoatlas semiotics, from the atlas analysis to atlas data analysis, from graphic variables to model-semiotic metavariables, parity-semiotic atlas classification, etc.

4. Selected examples of synthesis
Synthesis of carto-atlassemiotic theory
Three metacarto/atlas-related concept trajectories

Metacartography (Cartography) Primary concept		
——————————→ 1960-1970	**Metacartosemiotics** (Cartosemiotics) Derivative concept	
	——————————→ 1990-2000	**Metaatlasgraphy** (Atlasgraphy) Derivative concept 2020s ——————————→

The synthesis of theoretical concepts is demonstrated with using of three metacarto/atlas-related trajectories 1960-1970s, 1990-2000s and 2020s.

4. Selected examples of synthesis
Synthesis of metaatlasgraphic democratization principles

1.Parity of Atlas Classification			
Map-atlases	Photoatlases	Text-atlases	Mixatlases
2. Parity of research methodology for all atlases			
Creation and using of map atlases	Creation and using of photoatlases	Creation and using of text-atlases	Creation and using of mixatlases
3.Parity of Semiotic Analysis and Portraying			
Maps		Atlases and metaatlases	
4.Parity of Function Clusters			
Education cluster	Science-research cluster		Publishing and popularization cluster
5.Parity of Traditions			
Cartographic traditions		Non cartographic traditions	
6.Parity of Acquire Knowledge			
Mapping and cartographic knowledge		Atlassing and atlasgraphic knowledge	

Screenshots of 6 metaatlasgraphic democratization principles (after Wolodtschenko 2022). Metaatlasography forms new views on its role in the study of atlases as basic semiotic-epistemological models with cartographic and non-cartographic traditions. Metaatlasgraphy democratizes cartographic and non-cartographic traditions as well as develop the evolutionary processes of transformation of map/atlas knowledge.

4. Selected examples of synthesis
Synthesis of the ICA Commissions (2019-2023)

1) **CARTOGRAPHY** Traditions (8)

Commission on Art and Cartography
Commission on Cartographic Heritage
Commission on Cartography and Children
Commission on Cartography in Early Warning and Crisis Management
Commission on the History of Cartography
Commission on Marine Cartography
Commission on Mountain Cartography
Commission on Planetary Cartography

2) **MAP** Traditions (5)

Commission on Map Design
Commission on Map Production and Geoinformation Management
Commission on Map Projections
Commission on Maps and Graphics for Blind and Partially Sighted People
Commission on Maps and the Internet

3) **MAPPING** Traditions (3)

Commission on Sensor-driven Mapping
Commission on Topographic Mapping
Commission on Ubiquitous Mapping

4) **Atlas** Traditions (1)

Commission on Atlases

5) **MIX** Traditions (11)

Commission on Location Based Services
Commission on Open Source Geospatial Technologies
Commission on SDI and Standards
Commission on Toponymy (ICA-IGU joint commission)
Commission on User Experience
Commission on Visual Analytics
Commission on Cognitive Issues in Geographic Information Visualization
Commission on Education and Training
Commission on Generalisation and Multiple Representation
Commission on Geospatial Analysis and Modeling
Commission on Geospatial Semantics

The author has divided 28 ICA commissions into 5 thematic groups reflecting the 2019-2023 commission synthesis.

Where is a place for atlas cartography? Atlas cartography belongs to the Commission on Atlases.

27

4. Selected examples of synthesis
Synthesis of the ICA Commisions (2023-2027)

1) CARTOGRAPHY
Traditions
(8)

Commission on Art and Cartography
Commission on Cartographic Heritage
Commission on Cartography and Children
Commission on Cartography in Early Warning and Crisis Management
Commission on the History of Cartography
Commission on Marine Cartography
Commission on Mountain Cartography
Commission on Planetary Cartography
Commission on Atlas Cartography

2) MAP
Traditions
(5)

Commission on Map Design
Commission on Map Production and Geoinformation Management
Commission on Map Projections
Commission on Maps and Graphics for Blind and Partially Sighted People
Commission on Maps and the Internet

3) MAPPING
Traditions
(3)

Commission on Sensor-driven Mapping
Commission on Topographic Mapping
Commission on Ubiquitous Mapping

4) MIX
Traditions
(12)

Commission on Location Based Services
Commission on Open Source Geospatial Technologies
Commission on SDI and Standards
Commission on Toponymy (ICA-IGU joint commission)
Commission on User Experience
Commission on Visual Analytics
Commission on Cognitive Issues in Geographic Information Visualization
Commission on Education and Training
Commission on Generalisation and Multiple Representation
Commission on Geospatial Analysis and Modeling
Commission on Geospatial Semantics
Commission on Atlasgraphy

The author propose two new atlas-related commissions for 2023-2027:
Commission on Atlas Cartography and Commission on Atlasgraphy

4. Selected examples of synthesis
Synthesis of three carto/atlas-related orbits
Mainstream cartography and its „environment" (2023)

Cyber-cartography

Atlassemiotics

Photo-atlasgraphy

Mainstream Carto-graphy

Atlasgraphy
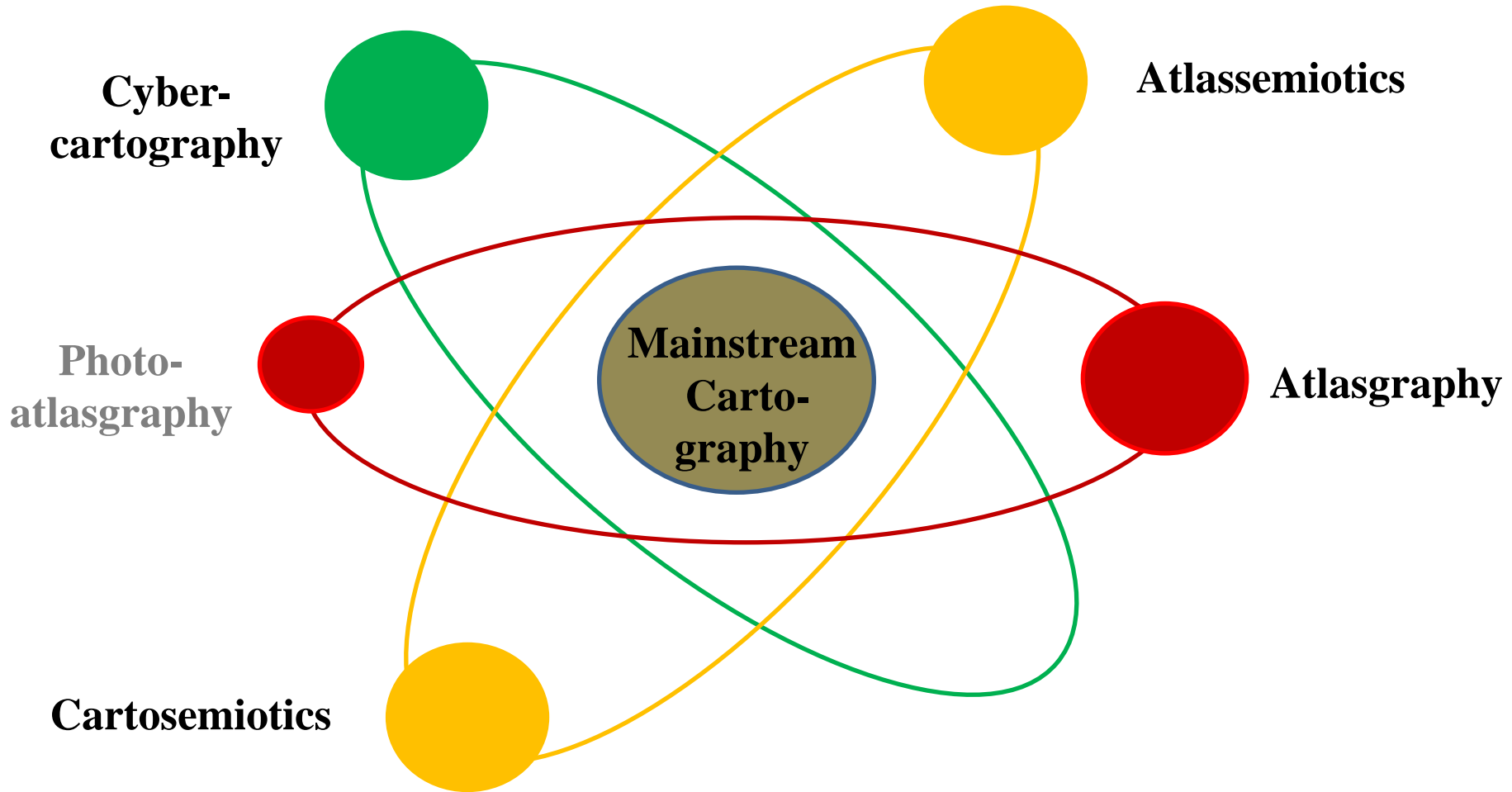
Cartosemiotics

The synthesis of 3 selected carto/atlas-related orbits is carried out without contact with the ICA commissions.

4. Selected examples of synthesis
Cartosemiotic synthesis in comics (1990s and 2020s)
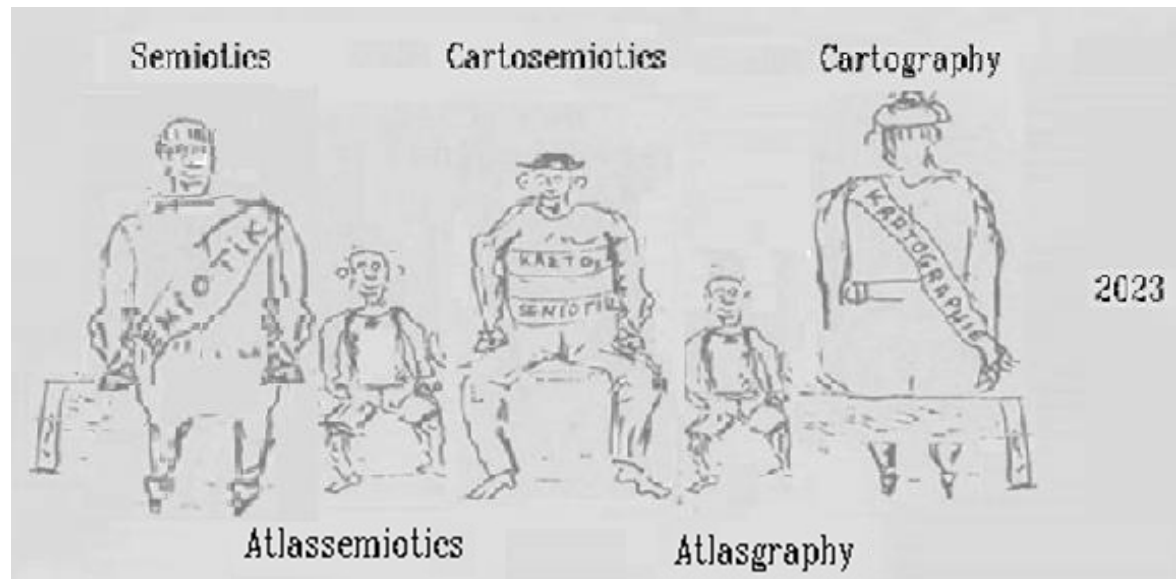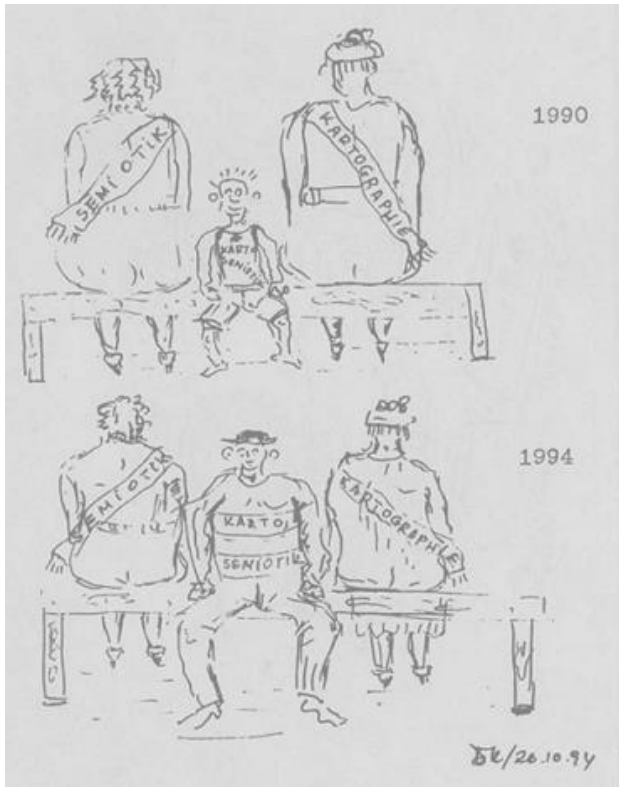
Prof. B.Koen from the University of Sofia created two comics for Cartosemotic Symposium 1994 in Dresden. Symposium was initiated by J.Pravda and A.Wolodtschenko. The comics shows a cartosemiotics development 1990 and 1994.

The updated comics 2023 (after A. Wolodtschenko) bears the name "Atlassemiotics and atlasgraphy as new children in semiotic-epistemological kindergarten".

5. Selected background - publications

Interview with Fraser Taylor. Quo vadis – Cybercartography? In: Diskussionsbeiträge zur Kartosemiotik und zur Theorie der Kartographie Intern. Korrespondenz-Seminar, Band 23. TU Dresden Verlag, Dresden 2020.
http://ojs.meta-carto-semiotics.org/index.php/mcs/article/view/103/106

Taylor, D. R. F., (Ed.) (2005): Cybercartography: Theory and Practice, Volume 4. Amsterdam: Elsevier Taylor, D. R. F., (Ed.) Anonby, E., Murasugi, K. (Associate Editors). (2019) Further Developments in the Theory and Practice of Cybercartography: International Dimensions ad Language Mapping Volume 9. Elsevier, Amsterdam

Thumbadoo R. V., Taylor D. R. F. (2020): William Commanda, Oral Wampum Storytelling, Digital Technology and Remapping Indigenous Presence Across North America In Mapping with Indigenous Peoples in Canada. Hess, J. (Ed.) Routledge. 2021

Thumbadoo, R.V., Wolodtschenko A.(2021): *William Commanda CAN TEACH Calendar 2022: a structural-semiotic analysis*. In: Diskussionsbeiträge zur Kartosemiotik und zur Theorie der Kartographie, Intern. Korrespondenz-Seminar, Band 24. Dresden 2021, S.28-35.

Wolodtschenko A. (2020): Semiotic evolution in cartography and atlassing. Verlag: Selbstverlag der TU Dresden. Dresden 2020,(in Russian).

Wolodtschenko A.(2021): Quo vadis Europäische (theoretische) Kartographie und Karto/Atlassemiotik? Verlag: Selbstverlag der TU Dresden. Dresden 2021.

Wolodtschenko A.(2022): From Metacartography to Metaatlasgraphy. Verlag: Selbstverlag der TU Dresden. Dresden 2022.

6. Imprint and photo sources

Slides 4, 5: Photo archive of Department of geoinformatics (prof. Vit VOŽENÍLEK), Palacký University, Olomouc
Slide 17: Photo archive of the German Semiotic Association
Slides: 11, 18, 19, 20, 24, 30: Photo archive A.Wolodtschenko
Slides: 13, 14: Photo archive Romola V. Thumbadoo

Photoatlas collection A. Wolodtschenko:
https://atlas-semiotics.jimdofree.com/bild-atlantothek/

Wolodtschenko A.
Selected Synthesis Aspects in Cartography, Cartosemiotics and Atlasgraphy
Bildatlas
Dresden 2023