Digitising Lotman: From Practice to Theory

Sustainable, Usable and Visible Digital Cultural Heritage: Twinning for Excellence

MERIT MARAN

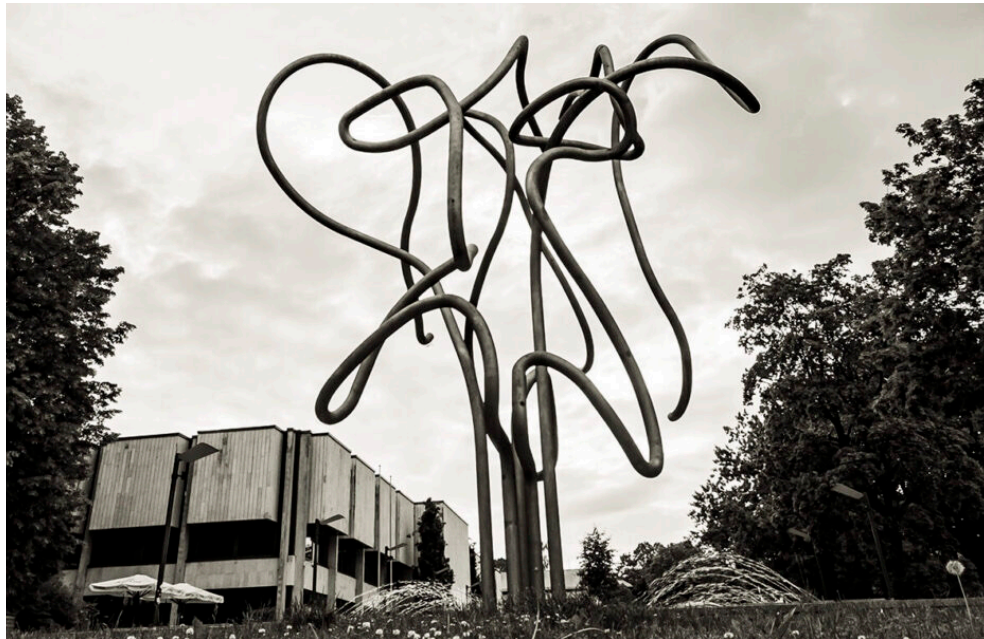TALLINN UNIVERSITY

Image: Poster of the exhibition „Journey in Juri Lotman's Semiosphere", 2022

Juri Lotman and Zara Mints

Juri Lotman (1922–1993) was a renowned semiotician, literary scholar, and cultural theorist. He co-founded the Tartu-Moscow School of Semiotics and was one of the key figures in establishing the semiotics of culture as a distinct research field.

Zara Mints (1927–1990) was an esteemed literary scholar and professor of Russian literature, widely recognized for her research on the Silver Age, particularly the works of the poet Alexander Blok.

The Archive Across Two Cities

University of Tartu Library

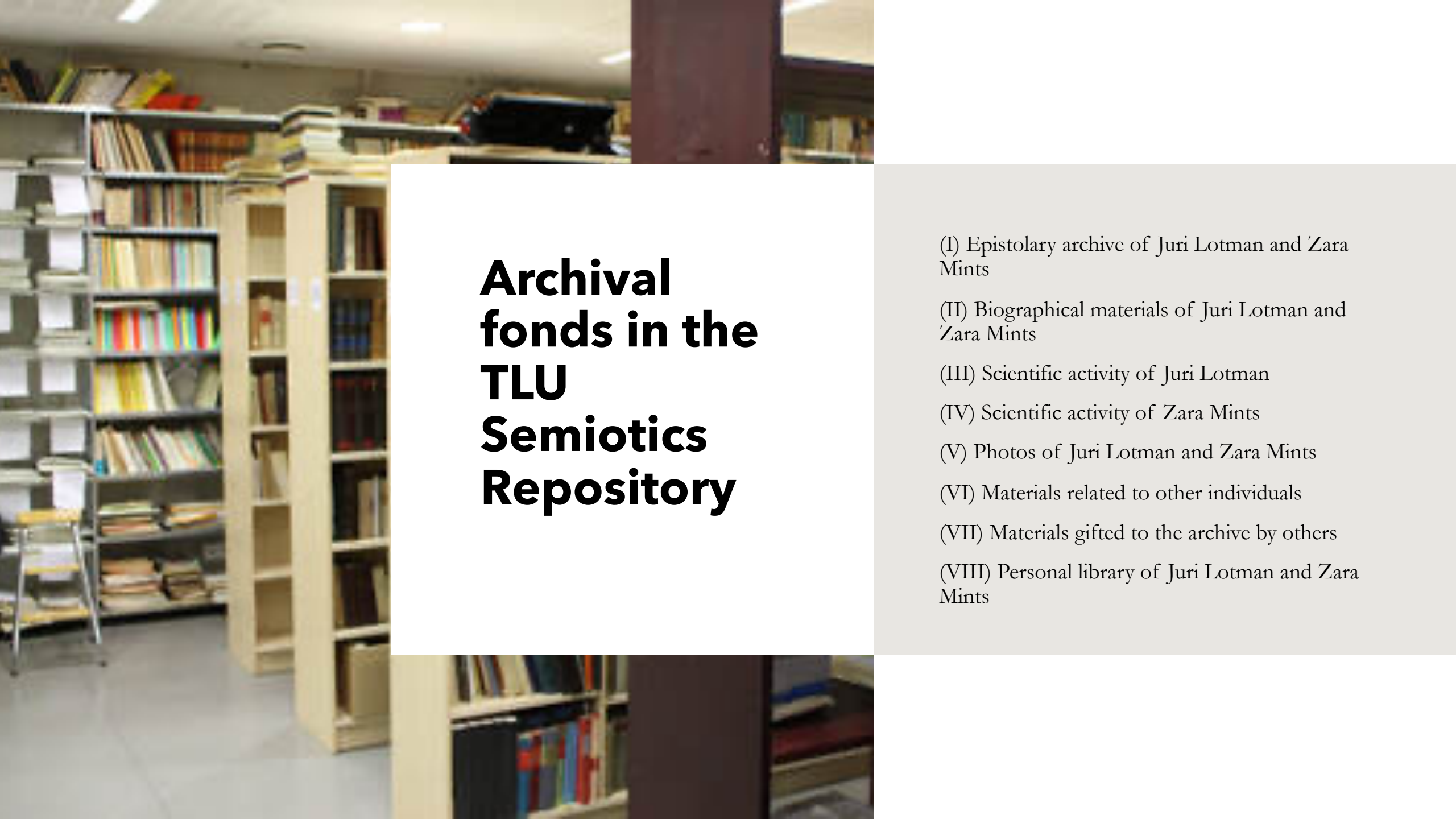**Semiotics Repository at Tallinn University**

Archival fonds in the University of Tartu Library

(I) Personal archive of Juri Lotman

(II) Personal archive of Zara Mints

(III) Epistolary personal archive of Juri Lotman and Zara Mints

Archival fonds in the TLU Semiotics Repository

(I) Epistolary archive of Juri Lotman and Zara Mints

(II) Biographical materials of Juri Lotman and Zara Mints

(III) Scientific activity of Juri Lotman

(IV) Scientific activity of Zara Mints

(V) Photos of Juri Lotman and Zara Mints

(VI) Materials related to other individuals

(VII) Materials gifted to the archive by others

(VIII) Personal library of Juri Lotman and Zara Mints

The Shift from Physical to Digital Archive

1. Structural Organization of the Archive
2. Contextual Integrity
3. Metadata Creation
4. Materiality
5. Accessibility and Sensitive Information

1. Structural Organization of the Archive

PHYSICAL ARCHIVES

- Single, predetermined organization

- Fixed, hierarchical structure

- Navigation depends on physical placement

DIGITAL ARCHIVES

- Multiple possible organizations

- No single fixed hierarchy – fluid, metadata-driven structure

- Metadata allows multiple "views" of the same material and personalized exploration

1. Structural Organization of the Archive: Example

Hierarchical organization of archive:

Fond (e.g., *Epistolary archive of Juri Lotman and Zara Mints*)

Series (e.g., *Letters from individuals*)

File (e.g., *Letters from Boris Uspenskij*)

Item (e.g., *Letter from Boris Uspenskij, 30.01.1984*)

Level of description:

File-level metadata provides a broad contextual description of a grouped collection of materials, capturing key details like creator, purpose, and date while minimizing redundancy.

Item-level metadata offers detailed descriptions of individual items, enabling precise searchability, thematic analysis, and new analytical possibilities, especially in digital archives.

2. Contextual Integrity in digital archives

Challenges: Loss of Context

        Original hierarchical structure (fonds, series) may fragment

        Items can become disconnected from provenance

        Risk of decontextualization & misinterpretation

Opportunities: Enhanced Connections

        Dynamic linking

        Multiple contextual views based on user needs

        Visualization tools (interactive maps, timelines, network graphs)

2. Contextual Integrity: Example

Physical Archive:

- Manuscripts (e.g., a 1950s Lotman research article) are grouped with related works

- Chronological arrangement preserves temporal context

Digital Archive:

- Temporal context might go unnoticed unless we specifically request that view

- Dynamic linking enables connections to related items (conference presentations, letters, etc.)

3. Metadata creation

Metadata Type	Created by	Characteristics
Curator-Created	Archivists, librarians, or experts	Structured and standardized; Based on professional guidelines; higher levels of accuracy, authority, and consistency
User-Created	General users, researchers, or online communities	Unstructured, informal, and sometimes inconsistent; Can increase accessibility by adding diverse viewpoints; Flexible and dynamic
Machine-Generated	AI, algorithms, or automated systems	Efficient and scalable but may require human validation; Extracts metadata using OCR (Optical Character Recognition), NLP (Natural Language Processing), or AI-based image recognition; Can be error-prone

3. Metadata creation in the archive of Lotman and Mints

How can the archive of Lotman and Mints benefit from user-created and machine-generated metadata?

I User-created metadata

Community Involvement – Networked contributions enhance descriptions

Digital Discussion Platform – Enables questions & scholarly exchange

Curator Oversight – Ensures metadata quality & reliability

II Machine-generated metadata

Enhances Curatorial Work – by processing large volumes of data efficiently and identifying patterns

Reveals Hidden Connections – Links related materials beyond human recognition

Improves Searchability – Makes archives more accessible & discoverable
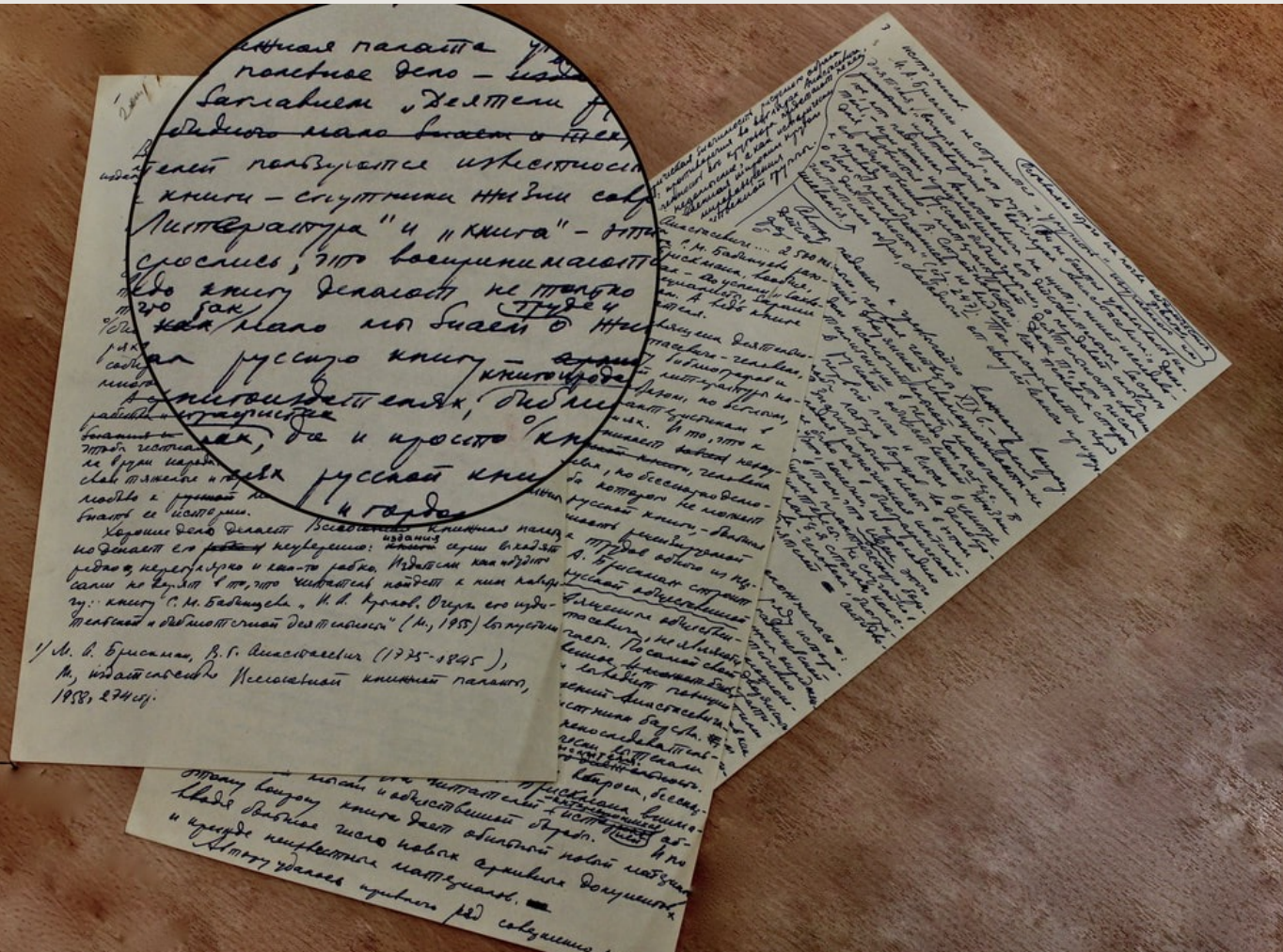
4. Materiality

What aspects cannot be digitized?

- Tangible document properties: texture, weight, ink and binding details

- Fine details such as marginalia, stamps, and seals

- The sensory experience—smell and feel—that enriches research

- Digital images provide a standardized, flat view of documents

- Important physical cues (e.g., creases, signs of aging) may not be visible

4. Materiality

Which physical aspects carry informational value?

- Digital images standardize appearance but may overlook subtle material differences

- We tend to prioritize high-quality originals (e.g., selecting the best-preserved photograph and digitizing the original typewriter manuscript)

- Focusing on originals can limit researchers' ability to study production methods and material nuances

- While digitization enhances accessibility and quality, it may also reduce insights into the physical and historical context of archival materials

5. Accessibility and sensitive information

- Digital archives enhance accessibility but pose new challenges for sensitive data

- Traditional archives relied on location and archivists to regulate access

- Digital formats require clear guidelines and digital safeguards

- Sensitive content may need restricted access for researchers only

- The goal is a balance between open access and ethical data protection

In conclusion:

- **Structural Organization of the Archive:** The shift from a fixed, hierarchical structure in physical archives to a dynamic, metadata-driven organization in digital archives allows for multiple ways of accessing and interpreting materials.

- **Contextual Integrity:** While digital archives risk fragmenting original archival context, they also enable new ways of reconstructing connections through metadata, linking, and visualization tools.

- **Metadata Creation:** Metadata in digital archives can be created by curators, users, or machines often complementing each other in a way that can enhance searchability, accessibility, and accuracy.

- **Materiality:** Digitization enhances accessibility but inevitably strips away the physical and sensory aspects of archival materials, raising questions about what elements of materiality hold informational value.

- **Accessibility and Sensitive Information:** Digital archives democratize access to historical materials, yet they require careful policies and ethical considerations to balance openness with the responsible handling of sensitive data.