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International Scientific Review for Contemporary Archival Theory and Practice
35/1

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QUO VADIS ARCHIVISTICA, AMOR NOSTER? (INTRODUCTORY REFLECTION)

As the editor-in-chief of Atlanti +, the international scientific journal for contemporary archival theory and practice, I dedicate my introductory reflection to the topics of the 35th International Institute of Archival Science (IIAS) Conference and the 18th International Autumn Archival School. As is customary, the regular members of IIAS have chosen two topics:

1. Popularization of archival sciences
2. Archiving classical and digital documents in theory and practice.

Both topics will be discussed in detail at the 35th IIAS International Conference and the Autumn Archival School. The texts of the lectures will be published in Atlanti+, as well as in both volumes of Atlanti, which will be published during the conference.

Given the title of this reflection, 'Quo vadis archivistica, archivistica amor noster?', it is possible to respond and point out some citations about positive archival legislation and by-laws or standards adopted by individual countries or those regulations and recommendations that were created within the framework of individual commissions and committees of the ICA (International Council of Archives). In the hope that these instructions and positive legislation will also be used and implemented in archival theory and practice and that they will also be expressed in the scientific and study studies of archivists, my great wish is that archival science in the future would focus on enforcing the definition that archival science is an independent, academic, multidisciplinary and interdisciplinary science. We must classify this science as a social science and a natural science. The popularization of archival science largely depends on other sciences, which should take archival science into account in their development, as an equal partner in scientific research in general.

I also see popularization in errors in the decisions of individual countries, in the formation of public archives within other institutions, such as in Canada, where library and archival activities are combined. Such and similar solutions are also emerging elsewhere in the world. Guidelines for the popularization of archival sciences can be found in efforts to organize independent archival studies in con-

nection with national and international movements. However, archival sciences should be established through decisions for independent archival studies at all study levels and through many other propaganda-related actions such as exhibitions, publications, and the like.

Another topic is the archiving of classical and digital documents in theory and practice. In principle, we have not had any problems with archiving classical documents and related issues, at least for the last 50 years. Problems have arisen recently, since the activities of archival theory and practice are burdened with the processes of digitization, information technologies, artificial intelligence, personal data security... All these processes influence and shake up the established principles of archival science. At the same time, the foundation of archival science is forgotten, which can be found in the principle of provenance. With this rapid development, the awareness that we must become familiar with the fact that there is no difference between classical and digital archiving when dealing with archival documents is simply bypassed or omitted.

This year will be a year of anniversaries: my personal anniversary, celebrating 60 years of archival activity (started in 1965); the publication of the journal Archives – Contemporary Archives from 1979 to 2003, the 40th anniversary of the Institute IIAS (established in 1985), the publication of the 35th issue of the journal Atlanti and the 8th volume of the journal Atlanti +.

An interesting path is behind us, but ahead of us may be 'tectonic changes', such as activities regarding the formation of independent archival sciences. The development of independent professional archives, the process of creating an independent EU Archive, the development of independent archival studies at universities and faculties around the world. In Slovenia, the Archives of the Republic of Slovenia should be separated from the Ministry of Culture, and financial support should be provided to archival institutions to improve technical and professional working conditions. I recently read the following in an article: 'Archivarbeit kostet Geld', meaning that work in the archive costs money. On the one hand, I agree with the article. The funds that archival institutions receive for their operations are always insufficient, and they also need to be distributed over several years. However, I cannot agree with the idea that by digitizing preserved archival documents, as cultural monuments and authentic records of the history of nations, this volume

could be reduced by digitization procedures in order to save on depot space.

In response to my question, 'Quo vadis archivistica, amor noster?', I invite all archivists to act together to find ways to develop archives, archival science, archival studies, archival theory and practice, and prepare them for the future, with the desire to proceed from the principles of deontology. Therefore, to find regulations that fully regulate the duties and respect of all archivists and our profession together. Let us insist on *'Cuilibet in arte sua credendum'* - „Each expert should be trusted in their own area of expertise."

Peter Pavel Klasinc, Editor-in-Chief

Tatjana Hajtnik[1]
Rihard Fekonja[2]

THE IMPACT OF REGULATIONS AND POLICY ON THE LONG-TERM PRESERVATION OF DIGITAL RECORDS

Abstract

Purpose*: This research analyzes the impact of legal, political, and standardization factors on the long-term preservation of digital records in public archives, with a focus on the Slovenian case within the framework of European regulatory and strategic guidelines. Special attention is given to the connection between international standards such as ISO/IEC 27001, ISO 16363, ISO/TR 18128, and legal acts such as the GDPR and eIDAS 2, and their influence on archival practice.*

Methodology*: A qualitative methodology was used, including analysis of legal documents (laws, regulations), standards, political strategies, and professional literature. This is complemented by an analysis of cases from the Slovenian context that illustrate the influence of political decisions on archival legislation and the accessibility of records.*

Results*: This research confirms that long-term preservation of digital records, the establishment of trustworthy repositories, and archival policy are closely intertwined with the legal and political environment. Legal compliance is fundamentally ensured, but obstacles are mainly evident in the implementation of standards, political stability, institutional independence, and funding. Hypotheses H_1 and H_2 are confirmed, while H_3 is partially confirmed – standards have high practical value, but limited implementation. The research also offers specific recommendations and suggestions for further study.*

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Discussion: *The article presents the first comprehensive study in the Slovenian context that systematically connects the archival profession with the concepts of political stability, digital transformation, and risk management. It highlights the possibilities of applying international standards within the national legal framework and emphasizes the need to align archival policy with other public policies and strategic documents. The results are directly useful for legislators, managers of archival systems, information security experts, and researchers.*

Keywords*: digital records, digital repository, archive, legal regulation, political influence, long-term digital preservation, ISO standards*

1. INTRODUCTION

1.1. CONTEXT AND REGULATORY FRAMEWORK

In the digital age, the long-term preservation of digital records (hereinafter: digital preservation) is no longer solely a professional issue of archival science, but a strategic challenge that intertwines the legal framework, information security, organizational governance, and political will. In Slovenia, it is defined by

- the *Act on the Protection of Documentary and Archival Materials and Archives* [*Zakon o varstvu dokumentarnega in arhivskega gradiva ter arhivih*] - further ZVDAGA (2014) with implementing acts:
  - the *Decree on the Protection of Documentary and Archival Material* [*Uredba o varstvu dokumentarnega in arhivskega gradiva*] – further UVDAG (2017) and
  - the *Rules on Uniform Technological Requirements for the Capture and Preservation of Material in Digital Form* [*Pravilnik o enotnih tehnoloških zahtevah za zajem in hrambo gradiva v digitalni obliki*] – further PETZ (2020). ZVDAGA, in its currently valid version from 2014, systemically regulates the conditions for the protection of documentary and archival materials, procedures for their transfer to public archives, and conditions of access, thus directly influencing the implementation of long-term preservation of digital records in Slovenia.
- The *General Data Protection Regulation* – GDPR (2016), and the *Personal Data Protection Act [Zakon o varstvu osebnih podatkov] – further ZVOP-2* (2022). With the introduction of processing logs, restrictions on biometric data, and more detailed regulation of video surveillance, these acts have strengthened the requirements for security and traceability in the long-term preservation of digital records containing personal data.
- The *Information Security Act [Zakon o informacijski varnosti]* – ZInfV (2025), as the umbrella law for information security in the public sector, affects the security standards of archival information systems, which is crucial for long-term preservation.

The professional framework is provided by international standards: ISO 16363:2012, ISO/IEC 27001:2022, ISO/IEC 27002:2022, and ISO/TR 18128:2024, which emphasize the integration of technical, organizational, and legal requirements in ensuring the long-term accessibility, authenticity, and protection of digital records.

1.2. THE IMPORTANCE OF LONG-TERM DIGITAL PRESERVATION

Long-term digital preservation is essential for legal compliance, the realization of public interest, the safeguarding of the administrative, legal, and historical value of records, and the permanent protection of knowledge and cultural heritage. Properly preserved records serve as authentic evidence of business and legal decisions, enable traceability of procedures, and contribute to ensuring accountability and transparency of operations.

According to ISO/IEC 27002:2022 (e.g., control 5.12), information must be classified and handled according to its value, sensitivity, and need for protection, which includes measures to ensure its confidentiality, integrity, and availability.

It is also necessary to consider the role of policies, which can significantly influence which digital records are preserved long-term, under what conditions, and to whom they are accessible affecting their future usability and accessibility.

1.3. PURPOSE, OBJECTIVES, AND RESEARCH QUESTIONS

The purpose of this research is to determine how legal regulations, political orientations, and risk management shape the practices of long-term digital preservation.

The objectives of the study are to:

- analyze the impact of key legal regulations (ZVDAGA, GDPR, ZInfV) on long-term digital preservation processes,
- examine the role of politics in shaping approaches to long-term digital preservation and the development of archival practices,
- evaluate the applicability of international standards,
- identify gaps between normative requirements and practice.

Research questions ($\mathbf{RQ_x}$):

$\mathbf{RQ_1}$: How do legal regulations influence long-term digital preservation and access to digital records?

$\mathbf{RQ_2}$: How do strategic political documents and budgetary priorities guide the development of archival practices?

$\mathbf{RQ_3}$: In what ways do political decisions influence the selection of materials for long-term preservation and the conditions of access and availability?

RQ_4: How does the use of international standards contribute to a greater alignment of practices with legislation and political guidelines?

RQ_5: What are the key obstacles and opportunities for ensuring reliable and compliant long-term digital preservation in a changing legal and political environment?

Hypotheses (**H_x**):

H_1: Legal regulations significantly shape archival procedures and affect the compliance of digital preservation with legal requirements.

H_2: Political strategic documents and sectoral directives have a substantial impact on the execution of the archival function in the public sector, particularly in the allocation of resources and the development of operational practices for long-term digital preservation.

H_3: The use of international standards for risk management significantly enhances the resilience of archival solutions and their compliance with legal and political requirements.

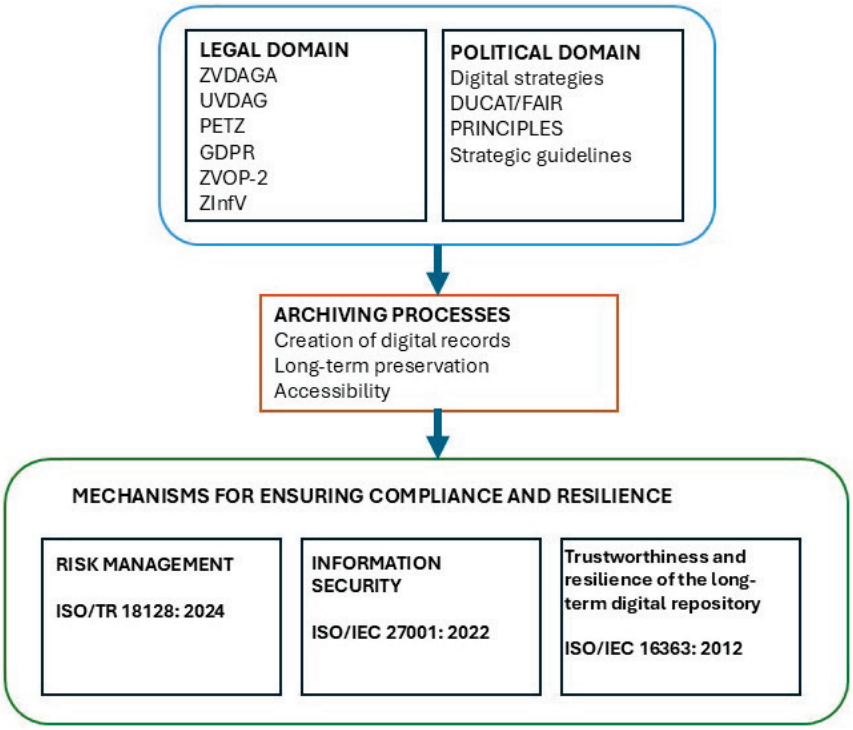
1.4. RESEARCH MODEL AND METHODOLOGY

This research is based on an interdisciplinary analytical framework that integrates three key areas relevant to the long-term preservation of digital records:

- Legal domain: analysis of legal regulations and potential inconsistencies in their implementation.
- Political domain: influence of national strategies and FAIR (Findable, Accessible, Interoperable, Reusable) principles on the institutional positioning of archives.
- Risk management domain: use of international standards as a mechanism for ensuring stability and compliance.

The method includes a qualitative analysis of regulations, strategies, and standards, as well as a synthesis of findings into a conceptual model (Figure 1), which illustrates how the legal-political framework and risk management jointly affect the processes of long-term preservation and archiving of digital records.

Figure 1: Research model of the influence of regulations, political orientations, and risk management on the long-term preservation of digital records. Source: Author's own work



2. PREVIOUS RESEARCH AND KEY SOURCES

Research in the field of long-term digital preservation in the past decade increasingly addresses the interplay of legal, organizational, and technological factors that shape archival strategies and practices. Most studies focus on individual aspects of long-term preservation, such as legal compliance, metadata, or file format selection, while fewer comprehensively examine the impact of legislation, policies, and risk management on the actual implementation of archival functions.

Conway (2010) highlights the gap between established archival policies and their operational implementation, often conditioned by a lack of resources and strategic management. Lavoie (2014) points out the lack of standardization, while Wilkinson et al. (2016) emphasize the importance of the FAIR principles (Findable, Accessible, Interoperable, Reusable), which go beyond the scientific context and increasingly influence the archiving of public records.

At the legislative level, the GDPR (2016) raises questions about the relationship between the right to be forgotten and the principle of long-term accessibility of archived content. In Slovenia, the ZVDAGA (2014) and its implementing regulations define the foundations of digital preservation based on the DUCAT principles (accessibility, usability, integrity, authenticity, durability). The combined application of FAIR and DUCAT principles strengthens legal compliance (RQ_1), responsiveness to political guidelines (RQ_2–RQ_3), and supports the architectural implementation of standardized solutions (RQ_4).

European initiatives such as eArchiving emphasize the importance of open, interoperable, and sustainable specifications for long-term preservation. The FAIR principles are concretely linked to the digital transformation of the public sector through these approaches (European Commission, n.d.). The European Open Science Cloud – EOSC initiative (EOSC Association, 2024) further establishes long-term preservation as a foundation of open science, with FAIR principles guiding the design of interoperable and reusable archives.

The national strategy Digital Slovenia 2030 also emphasizes goals such as the development of digital competences, open public services, and the strengthening of cybersecurity. In this way, it indirectly supports the core principles of findability, accessibility, and reusability of public data (Ministry for Digital Transformation, 2022).

The methodological framework for ensuring compliance, reliability, and security of preservation is defined by international standards:

- ISO 14721 (OAIS reference model),
- ISO 16363 (audit of trustworthy repositories),
- ISO/IEC 27001 and ISO/IEC 27002 (information risk management), and
- ISO/TR 18128 (risk assessment for records management).

The latter specifically highlights political factors as external sources of risk that can affect long-term preservation through legislative changes, strategic priorities, and institutional instability.

Together, these initiatives confirm the need for an integrated approach, where legislation, strategic policies and international standards are aligned in resilient archival policies that enable effective responses to changes in the legal and political environment (RQ_5).

3. DIGITAL RECORDS AND THE BASIC REQUIREMENTS FOR LONG-TERM DIGITAL PRESERVATION

A digital record is a structured unit of data in digital form, created or received as evidence of business or legal activity (ISO 15489-1:2016). It includes content and metadata that establish its business, legal, and informational context, as defined in Sections 5.2.2 and 5.2.3 of ISO 15489-1:2016. Its value derives from this connection to the context of creation, which gives the record legal, administrative, or informational weight (ISO 15489-1:2016, Clause 3.15; ISO/TR 18128:2024). This contextual linkage is emphasized both by ISO 15489-1, which defines a record as evidence and a tool for action, and by ISO/TR 18128, which highlights the importance of the political, legal, and organizational context as a key factor for the reliability of records over time in the framework of risk assessment.

In the Slovenian legal framework, the digital record falls under the broader concept of documentary material, as defined by the ZVDAGA (2014). The key requirements for managing digital records throughout their life cycle are represented by the DUCAT principles, which serve as the fundamental criteria for assessing the legal compliance and functionality of archival information systems. The implementation of these principles goes beyond technical solutions, as it requires alignment among legal regulations, technical standards, and management practices.

These principles are operationalized in practice through PETZ (2020), which defines the minimum requirements regarding file formats, metadata structures, security measures, system maintenance, and information management for preservation. PETZ establishes a direct connection between the legal framework and technological solutions and enables the execution of the archival function in the digital environment of the public sector.

Digital records thus form the core of the archival function in the digital realm, and their long-term preservation depends on the coordinated functioning of legal, strategic, and technical mechanisms. A clear understanding of these requirements is essential for the establishment of stable and compliant archival solutions, forming the basis for an in-depth analysis of compliance factors in the following sections.

4. LEGAL AND INSTITUTIONAL FRAMEWORK FOR THE LONG-TERM PRESERVATION OF DIGITAL RECORDS

Reliable long-term preservation of digital records is based on a comprehensive legal framework that regulates the conditions for processing, protection, use, transfer, and preservation at all stages of their life cycle—from creation to archiving and access. This framework encompasses European and national regulations as well as strategic documents that influence archival practice in the digital environment.

4.1. EUROPEAN REGULATORY FRAMEWORK

At the EU level, the key documents are the General Data Protection Regulation (GDPR; Regulation (EU) 2016/679) and Regulation (EU) 2024/1183 on European Digital Identity (eIDAS 2).

The GDPR sets out principles for the lawful processing of personal data, of which Articles 5 (principles of processing), 17 (right to erasure), and 89 (special provisions for archiving in the public interest) are crucial for long-term preservation. The right to erasure, which contrasts with the principle of permanent preservation, poses a challenge for archival practice, although exceptions in the public interest are permitted.

The eIDAS 2[3] Regulation establishes a legal framework for trusted services such as electronic signatures, electronic time stamps, electronic delivery services, and digital identities. These elements are essential for ensuring the authenticity, integrity, traceability, and verifiability of digital records over time. The 2024 extension of the regulation additionally introduces the European Digital Wallet and enables cross-border identification and authentication of individuals and legal entities—an important development for public archives and other institutions that manage sensitive data and preserve digital documents in the long term. eIDAS 2 thus contributes to secure electronic information exchange, builds trust in the digital environment, and enhances the interoperability of archival information systems across the EU.

3 Regulation (EU) 2024/1183 of the European Parliament and of the Council of 11 April 2024 on a framework for a European Digital Identity (revised eIDAS Regulation 2) extends the scope of the original eIDAS Regulation (910/2014) and lays down rules on electronic identification, authentication, and trust services relevant for cross-border use in the EU (Regulation (EU) 2024/1183, 2024).

The European legal framework thereby establishes fundamental standards that national archival practices must consider ensuring compliance in long-term preservation—further examined in the following chapter.

4.2. THE IMPACT OF THE SLOVENIAN LEGAL FRAMEWORK ON THE IMPLEMENTATION OF THE ARCHIVAL FUNCTION

Slovenian legislation sets out key obligations and limitations for public archival solutions. The central piece of legislation, the Act on the Protection of Documentary and Archival Materials and Archives (ZVDAGA, 2014), defines the conditions for managing documentary and archival materials, where the fundamental DUCAT principles (Articles 3–6) serve as a benchmark for legal and functional compliance. Although the law applies to both physical and digital records, its provisions are often rooted in the logic of physical storage and are not fully adapted to the digital environment.

An example is Article 42 of ZVDAGA, which prohibits the permanent export of archival material and makes temporary export conditional upon the minister's consent—this originates from physical handling practices but is also applied to digital records in practice. The Decree on the Protection of Documentary and Archival Material (UVDAG, 2017) further restricts the storage of digital records in public cloud services, which limits cross-border cooperation and raises questions of digital sovereignty. Specifically, Article 44 of UVDAG prohibits the use of cloud services by public entities and their providers of digital storage (service providers), even when the solutions are within the EU.

The Information Security Act (ZInfV, 2025) complements the archival framework from the perspective of technical protection of information systems. It requires entities to implement cybersecurity measures, risk management, and ensure system resilience, which also applies to archival solutions.

The Personal Data Protection Act (ZVOP-2, 2022), together with GDPR (Regulation (EU) 2016/679), influences access to digital records, emphasizing the need to reconcile the principle of long-term preservation with the right to erasure (GDPR, 2016, Article 17). Although the law allows exceptions in the public interest (GDPR, 2016, Article 89), there is often a lack of operational guidance for archives on how to implement this in practice.

In practice, several concrete issues reveal gaps in the existing legal framework:

- Outdated concepts, such as treating digital materials by analogy with physical ones (ZVDAGA, 2014, Article 42).
- Restrictions on cross-border digital preservation that are not aligned with the development of cloud architectures.
- Direct legal prohibition of cloud services for storage (UVDAG, 2017, Article 44).
- Lack of guidance for implementing GDPR provisions in the archival context (Articles 17 and 89).

To improve legal clarity and operational effectiveness, it would be necessary to:

- develop supplementary professional guidelines based on international standards (e.g., ISO 14721, ISO 16363, ISO/TR 18128),
- and update legislation with provisions addressing the challenges of the digital environment, cybersecurity, and cross-border interoperability.

5. POLITICAL AND STRATEGIC INFLUENCES ON THE LONG-TERM PRESERVATION OF DIGITAL RECORDS

5.1. INTRODUCTION TO THE RELATIONSHIP BETWEEN POLITICS AND ARCHIVAL PRACTICE

Although archival policy is fundamentally a professional domain, archives—due to their role in safeguarding collective memory—often find themselves at the center of political debates. In transitional societies, where the past continues to influence the current social order, archives become symbolic arenas of political conflict. Issues such as the right of access, personal data protection, the confidentiality of certain information, and historical research frequently go beyond technical discussions and enter the realm of political decision-making.

In addition to professional tasks such as appraisal, selection of formats, and metadata description, archives are also subject to political influences manifested through funding, staffing appointments, and the determination of access embargo periods. Standard ISO/TR 18128:2024 (section 4.2.3) explicitly highlights political and legislative factors as one of the key categories of external risks that can undermine the reliability and sustainability of long-term digital preservation systems (ISO, 2024).

5.2. INTERNATIONAL AND EUROPEAN GUIDELINES

The FAIR principles, originally developed within the scientific community, are increasingly influencing archival practice, as they offer a conceptual framework for ensuring the accessibility, interoperability, and reusability of archival material. Their implementation goes beyond the technical domain, contributing to greater transparency and sustainable management of digital records, in line with the goals of open science and digital sovereignty (Wilkinson et al., 2016; EOSC Association, 2024).

Within this context, European initiatives and strategic documents play a key role, including the Digital Europe Programme, the European Open Science Cloud (EOSC) initiative, and national digital strategies such as Digital Slovenia 2030, which emphasize the development of digital competencies, openness of public services, data security, and cross-border connectivity (Ministry for Digital Transformation, 2022; European Commission, 2023; EOSC Association, 2024).

International standards such as ISO/TR 18128, ISO 14721, and ISO/IEC 27001 provide a crucial normative framework for ensuring long-term accessibility, security, and compliance of archival solutions. ISO/TR 18128 warns that political instability, lack of resources, and fragmented responsibilities constitute systemic risks for the long-term preservation of digital records (ISO, 2024a). The inclusion of archival institutions in European initiatives, particularly participation in CEF eArchiving (where the DLM Forum develops open interoperable specifications), and alignment with international standards contribute to greater interoperability, reliability, and security of archival systems (European Commission, n.d.; DLM Forum, n.d.).

5.3. INSTITUTIONAL POLICIES AND GOVERNANCE

Internal policies of institutions, particularly in the public sector, significantly affect the establishment and maintenance of long-term digital preservation. Strategic documents—such as digital transformation policies, IT strategies, and information security policies—define objectives, priorities, and budgetary constraints for managing digital records. The alignment of these documents with standards such as ISO/IEC 27001 and ISO/IEC 27002 is essential for risk management and ensuring the stable operation of archival systems (ISO/IEC, 2022a; ISO/IEC, 2022b).

Distinguishing between strategic and operational policies enables more effective management—strategic policies guide long-term transformations (e.g., digital transformation, transition to e-government), while operational ones define specific procedures for day-to-day work (e.g., data backup, access management, email archiving). The absence of aligned operational rules can lead to fragmented preservation practices and reduce system resilience.

Challenges arise in research and educational institutions, where internal policies must comply with principles of open science, digital preservation, and open access. It is also important to consider factors such as political shifts, organizational changes, and budgetary pressures, which can impact the continuity and support for digital preservation (ISO, 2024a).

Key to the sustainability of the archival function are clearly defined responsibilities, ongoing staff training, and long-term stable funding—all of which should be reflected in both strategic and operational institutional policies.

Effective institutional policies also require clearly defined responsibilities, continuous professional development for staff, and secured long-term funding, which together form one of the key conditions for the long-term sustainability of the archival function.

5.4. THE ROLE OF THE STATE, STRATEGIC DIRECTIONS, AND STAKEHOLDERS

The establishment of trusted digital preservation largely depends on national strategic directions, the legislative framework, and the provision of stable institutional conditions. The state plays a multi-layered role—as a regulator, funder, and policy implementer—which directly affects the execution of digitization and long-term preservation projects.

National digital transformation strategies, IT policies, and public tenders guide the development of digital preservation by setting standards and choosing technological solutions. Transparency in resource allocation, the inclusion of the professional public, and effective monitoring of policy implementation are key conditions for enforcing consistent and stable preservation practices.

External stakeholders—IT service providers, research organizations, and the non-governmental sector—also have a significant impact, as they co-shape tech-

nological and legal directions by participating in working groups and advisory bodies. This dispersion of responsibilities requires a comprehensive and inclusive national strategy for long-term digital preservation.

Standard ISO/TR 18128:2024 warns that the resilience of archival systems is influenced by political conditions, institutional responsibilities, and the availability of resources (ISO, 2024a). Despite the existence of strategic documents such as Digital Slovenia 2030 (Ministry for Digital Transformation, 2022) and the Resolution on the National Programme for Culture 2024–2031 (2024), archival activity remains substantively and strategically neglected in national digital policies.

An analysis of the annual reports of the Archives of the Republic of Slovenia (2022; 2023; 2024) confirms that the capacities for implementing the archival function are often limited. In the period 2022–2024, discrepancies arise between plans and execution, especially regarding the issuance of technical guidance and staff development in the field of digital preservation and IT. Even plans for digitization and the development of the Virtual Archival Reading Room (VAČ)[4] often exceed the actual capabilities of the archive, as adequate expansion of staff and infrastructure development funding is not ensured.

Poor strategic positioning of the archival function, lack of operational support, and understaffing together contribute to its systemic vulnerability, especially in times of political or financial fluctuations.

5.5. POLITICAL INFLUENCE ON ARCHIVAL LEGISLATION

Standard ISO/TR 18128:2024 in section 4.2.3 warns of external risks related to political, legislative, and regulatory influences on long-term preservation systems. Political decisions can affect the management, preservation, or access to digital records, with risks often arising in the form of legislative instability, short-term interests, and institutional uncertainty.

The Slovenian experience of two referendums on the amendment of Article 65 of ZVDAGA (2006 and 2014) illustrates the direct influence of politics on archi-

4 The Virtual Archival Reading Room (VAČ) is a web-based application designed for searching, viewing, and accessing digitised and born-digital archival records preserved by public archives. It represents a key user interface of the Slovenian public electronic archive *e-ARH.si*, enabling remote access to archival materials and thus contributing significantly to the transparency and openness of archival activities. VAČ is the result of years of development and collaboration within the Slovenian Public Archival Service (SJAS). Its further development and availability are closely linked to stable funding, as well as to the digital competencies and capacities of archival staff.

val legislation. Although this is a technically demanding field, political debates placed the archival profession at the center of ideological disputes, where professional assessments were often overshadowed by symbolic and political meanings related to access to archival records.

A comparison of Articles 65–68 of ZVDAGA between 2006 and 2014 reveals greater normative precision and formalization of procedures, especially in defining the conditions for access to archival records. A 2014 addition, Article 66.a, for the first time specifies the possibility of exceptionally extending access restriction periods, whereby public legal entities can propose continued closure even after the standard deadlines have passed. Before a decision is made, the *archival commission*[5] must provide a professional opinion, but the final judgment remains under the jurisdiction of the Government of the Republic of Slovenia. Despite built-in professional mechanisms, this process allows political factors to influence the accessibility of archival information.

A less publicized but significant consequence of political decisions is the amendment to Article 40 of ZVDAGA. The 2006 version stipulated that web publications, internal documents, and publications of public legal entities were also considered archival material, whereas the 2014 amendment softened this requirement. Now, such materials may be considered archival material, which means they are no longer automatically subject to mandatory preservation. This has increased the importance of archival value assessments conducted by authorized archivists—often based on inconsistent information provided by the creators. This raises the risk of selective enforcement of obligations and the loss of important digital content.

An important reference framework is also provided by standard ISO 16363:2012, which, among the criteria for trustworthy *digital repositories*[6], emphasizes the need for:

- stable funding sources (section 3.1.1.3),

5 The Archival Commission is a professional and advisory body composed of representatives from the Archives of the Republic of Slovenia, research organisations, records creators, and non-governmental organisations in the field of human rights. In accordance with Article 66.a of the Public Archival Service Act (ZVDAGA), its task is to issue opinions on proposals to extend access restriction periods, while the final decision is made by the Government of the Republic of Slovenia (ZVDAGA, 2014).

6 *A digital repository* is an information system designed for the long-term preservation, management, and access to digital data and records. Such repositories play a key role in ensuring the durability, integrity, and accessibility of digital content over time, particularly in the context of institutional memory, research data preservation, and archival functions. They are essential for implementing strategies aligned with FAIR principles and standards for trustworthy digital repositories (e.g., ISO 16363:2012).

- clearly defined institutional mission and operational independence (sections 3.1.1.1 and 3.1.1.2), and
- systematic risk management, including political influences (section 3.1.2.2).

The Slovenian example demonstrates the vulnerability of these conditions, as the archival function is not structured as a stable, strategically protected public service, but remains dependent on current political priorities and fluctuations in funding.

6. FINDINGS, HYPOTHESES VERIFICATION, AND CONTRIBUTION OF THE RESEARCH

6.1. FINDINGS AND HYPOTHESES VERIFICATION

The results of the research confirm that the long-term preservation of digital records and the establishment of trustworthy archival systems depend on a combination of legal regulation, political decisions, and the application of internationally recognized standards. This chapter synthesizes the findings regarding the influence of legislation, strategic orientations, and the use of international standards, while answering the research questions (RQ_1–RQ_5) and testing the hypotheses (H_1–H_3).

RQ_1: The legal framework (ZVDAGA, ZVOP-2, ZInfV, GDPR) defines the fundamental obligations of public institutions in relation to the capture, storage, and access to digital records. Particularly, the amendments to Articles 40 and 65 of ZVDAGA demonstrate that legislation not only defines deadlines and access criteria but also transfers part of the responsibility for value assessment to the creators, which entails operational and implementation consequences.

H_1 is confirmed *– the legal framework has a decisive influence on archival practice.*

RQ_2: Despite the inclusion of the archival function in national strategies (e.g., Digital Slovenia 2030), it remains subordinate to broader administrative priorities. There is a lack of targeted funding, increasing the vulnerability of long-term preservation. The institutional dependency of archives on budgetary and political decisions means their capacity is often unpredictable.

H_2 is confirmed *– political orientations influence the development of archival infrastructure.*

RQ_3: Political influences are evident in the referendum practices and legislative changes (2011, 2014), where access to archival records became part of a broader

ideological conflict. The amendments to Articles 65–68 of ZVDAGA, especially the introduction of Article 66.a, allow for exceptions to access, where the executive branch plays a key role.

H_3 is partially confirmed *– political influences are systemically present, although formal safeguards exist.*

RQ_4: Standards (ISO/TR 18128, ISO 27001/27002, ISO 16363) enable structured risk management and reliability assurance of archival systems. However, in the Slovenian context, their application often remains at a declarative level, without systematic implementation. The example of standard ISO 16363 highlights the need for stable funding, institutional independence, and formalization of responsibilities – conditions that are not fully met.

H_3 is partially confirmed *– international standards have high practical value, offering structured approaches to risk management and ensuring long-term preservation, but their practical enforcement in Slovenia is limited, reducing their actual impact.*

RQ_5: The key barriers include legal inconsistency, political instability, unstable and insufficient funding, lack of operationally aligned internal policies, and staffing shortages in the area of digital preservation.

Improvement opportunities include strengthening the institutional independence of archival authorities, ensuring long-term budgetary stability, incorporating international standards into national legislation and strategic documents, consistent implementation of FAIR and DUCAT principles in digital records management, and the development of cross-border cooperation and standardized mechanisms to ensure compliance and interoperability.

6.2. CONTRIBUTION OF THE RESEARCH AND RECOMMENDATIONS

The conducted analysis contributes to the scientific and professional understanding of the political and legal factors affecting long-term digital preservation, which has not yet been systematically addressed in the Slovenian context. The research offers an integrated connection between the legal framework, political context, and the application of international standards for risk management. It emphasizes that the long-term sustainability of the archival function is based on professional independence, stable funding, normative clarity, and strategic alignment.

Based on the findings, we offer several recommendations to:

- *legislators*: ensure greater legal predictability and involve the archival profession in legislative processes; long-term funding of archival infrastructure is crucial.
- *institutions and archival system managers*: we recommend the implementation of standards ISO 16363, ISO/TR 18128, and ISO/IEC 27001, strengthening internal policies and staff training.*decision-makers in the public sector*: include the archival function in key strategic documents of digital transformation and ensure interdepartmental cooperation.
- *the research community*: further research into the effects of political (in) stability, comparative analysis of practices in the EU, and the development of methodologies for risk assessment in the archival context is encouraged.

These conclusions serve as a professionally substantiated basis for further strengthening institutional capacities in the field of long-term digital preservation and the reliability of archival systems.

7. RECOMMENDATIONS FOR FUTURE RESEARCH

The results of the research open several important directions for further scientific work. One key opportunity is a longitudinal analysis[7] of the impact of political changes on archival legislation and practice in different EU countries, with an emphasis on comparing institutional responses and the effectiveness of safeguard mechanisms. It would also be meaningful to deepen research on the actual effectiveness of the implementation of international standards in archival environments—both at the institutional level and in terms of technical requirements (e.g., interoperability and repository stability).

An additional research challenge lies in exploring the connections between the principles of open science, archival accessibility, and the protection of sensitive information, where conflicts of interest often arise. Special attention should be given to the impact of funding and human resource capacities on the long-term sustainability of archival solutions, as well as the role of artificial intelligence in automating the processes of selection, appraisal, and preservation of digital records.

7 *A longitudinal analysis* of the impact of political changes on archival legislation and practice in different EU countries refers to a comparative, time-based study that examines how archival laws and practices evolve under the influence of political decisions. Such an analysis reveals long-term trends, the stability or instability of legislation, and enables the identification of patterns and differences between countries.

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Jelka Melik[1]

EUROPEAN UNION AND PROTAGONISTS OF ARCHIVAL PROTECTION

Abstract

Purpose*: The purpose of our paper is to show that historical archives in Slovenia and in other states, members of European Union, need changes in order to play a more important role in the society.*

Method/approach*: The method used in our paper is first of all a descriptive method, showing the state of archives in Europe today. By using the comparative method, we compared the situation in the archival field in the European Union with the vision of the future development of the European Union. The third method applied is the method of analysis and synthesis. Finally, the compilation method was used to summarize the findings.*

Results*: We found that changes in the arhival field are necessary both in the Member States and at the level of the European Union.*

Conclusion/findings: *In conclusion, we have identified the need for a threefold transformation of the archival field. First, it must be emancipated from its traditional confinement within the cultural sector, with greater emphasis placed on the primary mission of archives: their essential contribution to democracy and the rule of law. Second, the relationship between public archives and records creators must evolve. The archival profession should become more forward-looking, integrating the roles of both historical archivist and records manager. The archivist must emerge as a key actor in the protection of archives, with responsibilities spanning from the creation of documents to their long-term preservation in historical repositories.Finally, transformation is also needed at the European Union level. The EU should take a more active role in identifying and supporting the archival needs of its Member States. Archival policy and preservation must become a shared concern and responsibility of the European Union.*

Keywords*: archives, historical archives, archivist, records manager*

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INTRODUCTION

The title of our article about the central guardians of the most important documents directs us first to answer the following questions: What are archives and what are historical archives? Which tasks of archives are fundamental? What is the role of the European Union in the field of archives protection?

1. ARCHIVES – DEFINITION AND MISSION

At the outset, we should highlightthe inconsistent archival terminology. Each country has its own terms, and the EU also has its own. It would be useful and good if terminology were unified at the European level.

In EU law, the term archives is defined in Article 1(2)(a) of Council Regulation (EEC, Euratom) No 354/83 of 1 February 1983, concerning the opening of the historical archives of the European Economic Community and the European Atomic Energy Community to the public. According to this regulation, archives comprise all documents and records—regardless of type or medium—that originated in or were received by one of the institutions, bodies, offices, agencies, or their representatives or servants in the performance of their duties, and which relate to the activities of those Communities.

In this context, state or national archives are defined as all documents and records—of any type and in any medium—that originated in or were received by public institutions in the course of performing their public duties. Historical archives, on the other hand, refer to records or documents of enduring value.

Valorization must take into account the cultural, administrative and legal dimensions of archives. In other words: historical archives consist of records that have been selected for permanent preservation on the grounds of their enduring cultural, administrative and legal value.

A) THE CULTURAL DIMENSION OF ARCHIVES

Archives are undoubtedly part of the cultural heritage of every nation. They are certainly a fundamental element of national memory. They are indispensable material for the formation of collective memory. In Slovenian legislation (Protection of Documents and Archives and Archival Institutions Act (2006 with additions), Article 1) states that archives are “cultural monuments”. Also, international archival

law regulates international relations in the field of protecting archives primarily as an indispensable part of national cultural heritage. However, it is necessary to note that this very dimension of archives is increasingly emphasized and at the same time the other/primary role(s) of archives is/are being reduced and marginalized.

The former Keeper of the Records of Scotland, Peter Cadell (1941–2010) warned in an article on European public archives twenty-one years ago that the fundamental importance of archives for administrative and legal purposes should be particularly emphasized (Cadell, 2003, 3–13). Only in this case, he wrote, will archives also be available for cultural purposes. In emphasizing exclusively the cultural importance of public archives, however, many important documents can be destroyed with impunity. Cadell gives the example of former socialist countries, where this emphasis was an established practice, namely because the archival service could shake off any responsibility for the preservation of certain political, judicial and administrative documents. Public Archives and their mission, he wrote, are still far too often seen as a kind of cultural supplement, an almost unnecessary historical addition to leisure activities, like museums and galleries. Today, public archives fall under the jurisdiction of the ministries of culture not only in most post-socialist European countries, but also in most other European countries. Exceptions include, for example, Austria and Lithuania, where the Federal Chancellor or Prime Minister is responsible for the archives, the Czech Republic and Slovakia, where the Ministry of the Interior is responsible for the public archives, and Cyprus, where the archives fall under the Ministry of Justice (European Commission, Secretariat-General, 2005, 27–28).

B. THE ADMINISTRATIVE DIMENSION OF ARCHIVES

The administrative task of archives is certainly important. Indeed, public archival services are part of modern public administration in most European countries and, as such, contribute to the development of document management in government and wider society.

The US-American archivist and archival theorist Theodore Roosevelt Schellenberg, in his book Modern Archives, already seventy years ago identified the need for government and administration to keep older records as the main source of information on all its activities as a reason for the creation of state or national

archives. They contain evidence of the financial and legal obligations that must be preserved to protect the government, as well as the vast store of official experience that the government needs to ensure continuity and consistency in its actions, to take policy decisions, and to solve social and economic, organisational and procedural problems (Schellenberg, 1956, 8–10).

The much younger Universal Declaration on Archives, initiated by the International Council on Archives and adopted by UNESCO on 10 November 2011, also stresses that archives must continue to be a source of valuable and reliable information that supports accountable and transparent government.

C. THE LEGAL DIMENSION OF ARCHIVES

Archives are also important as a guarantor of the legal security of persons. Documents are evidence of certain facts and, above all, are irreplaceable in the everyday life of citizens and in legal proceedings. This dimension of archives is strongly present in the history of Slovenians. After 1991, when Slovenia became an independent country, this has been particularly important. Public archives have made it possible to redress many of the wrongs of the previous social system. It was this experience that led to a substantial amendment of the definition of archives and historical archives in the current Archives Act (Protection of Documents and Archives and Archival Institutions Act, 2006 with additions). Historical archives are now important archives that have permanent value for history, other sciences, culture, and protect the legal interest of legal and natural persons.

In summary, the most important task of archives is their contribution to democracy and the protection of fundamental rights and the rule of law. It is particularly important that archives are recorded information of past events and evidence of certain facts. Archives reveal the truth, uncover what has been withheld, and finally allow for the correction of errors and injustices committed.

2. COOPERATION BETWEEN ARCHIVES AND CREATORS OF ARCHIVES

Taking into account all three dimensions of archives, the digitalization of operations establishes the necessity of closer cooperation between creators of archives from the field of public administration and archival services. It is also necessary to establish a new profession that will combine or unite the „records manager“

who works for the creators of archives and the archivist in public archives. In fact, it is about restoring the old situation.

Until the French Revolution, the same officials were responsible for managing records and later for their preservation. After the bourgeois revolutions in Europe, a division between the two roles occurred. But a hundred years later, new changes followed, which turned the process in the opposite direction, backwards. By organizing archives, the principle of origin (provenience) and original arrangement was established. Archives and historical archives formed successive stages in the same process. Increasing quantities of archives required archivists to evaluate archives as quickly as possible, which resulted in an increasing need to know the organization and operation and, above all, the business of the creators of archives.

The determination of historical archives gradually moved to earlier stages of the life cycle of records or documents. Historical archives must be determined at the stage of document creation and not at its end. The activities of archivists are increasingly merging with those who manage documents for the creators of archives. Both would require essentially the same education, the same knowledge. Both would also participate in the most important activity, the evaluation of records or documents and the selection or determination of those that have lasting value, both culturally, legally and administratively.[2]

3. THE EUROPEAN UNION AND ITS ROLE IN THE FIELD OF ARCHIVES

A. EUROPEAN ARCHIVES GROUP

The definition of archives, their protection and management are primarily a matter for each country. Nevertheless, European countries that are members of the European Union and have partially renounced their sovereignty, have certain duties that indirectly concern archives, namely respect for values such as democracy, the rule of law, and fundamental rights.

The European Archives Group (EAG) operates within the European Commission, which is an official expert body of the Commission, established at the beginning of 2006. The group has an informal status and falls under the Sec-

2 More on this issue Theo Thomassen (2000, 7–18).

retariat-General as the competent Directorate-General (DG). It is composed of representatives of the national archives of the Member States of the European Union. Its task is to ensure cooperation and coordination on general matters related to archives, since the management of archives is the responsibility of each Member State. There is no provision for an umbrella arrangement in the European Union. The Group should promote the exchange of knowledge and experience between Member States in the field and provide strategic advice to the Commission on matters related to archives. For example, regulations concerning the digital single market, copyright, data protection, digital signatures or artificial intelligence are in the spotlight.

So far, the group has been involved in several European Union programmes, such as making archives in Europe more accessible through the European Archive Portal and digital preservation methods in the framework of the E-ARK project. The European Archives Group has also produced guidelines for the implementation of the European Union General Data Protection Regulation (GDPR).

When monitoring developments in the field of archives, we can conclude that the EAG's modest role should be questioned and upgraded, as it does not significantly influence decision-making in the European Union or legal acts of the European Union that would affect the field of archives. Its composition should also be reconsidered. It is supposed to include mainly representatives of national archives, which means that the group does not necessarily include archival scientists who deal with theory in the field of archival sciences. They can be invited to participate, but they are not regular members of the group. Information about the EAG can also be found online among the information on the European Commission's expert groups. Where does this group belong and what is its role? Official members of the group are not known which limits its transparency (European Comission, s.d.).

The European Archives Group (EAG) has primarily a political rather than a professional role. This might imply certain threats as regards the amnesia of European society. With changes in governments of EU Member States, the attitude towards public Archives and the documents that are or should be stored in them, may be at stake. Archives should be independent bodies, like the judiciary sector, and not part of the executive branch of government. Memory is an indispensable creator of coexistence between Member States. Coexistence is possible in

the long term only with a clear memory and transparent action in the present. Archives are important building block of the European memory, which is also made up of the memories of individual Member States (Schlenker, 2022, 9–14). With documents lost, the possibility of an objective look back into the European past is also lost. Everyone should know, as the great French historian Emmanuel Bernard Le Roy Ladurie wrote, that „It is impossible to explain the present with the present.“ (Davies, 2013, 609)

The EAG website on the European Commission website has published the Strategy of the European Archives Group for the years 2025 to 2030 (European Commission, Secretariat-General, 2024). What does the action plan aimed at achieving its long-term and general goals tell? Let‘s look at some of the most important thoughts, findings and ideas. Above all, it is noticeable that the group is aware of its too modest role and the role of public archives in the European Union in general and the consequent general neglect of archival issues. It emphasizes that the essence of the identity of the European Union is actually in agreement on common values such as democracy, the rule of law, fundamental human and civil rights and freedoms, such as freedom of speech, gender equality and equal opportunities. The EAG also highlights the challenge of advising the Commission more effectively and, consequently, increasing the influence of national archives in the decision-making process of the European institutions. The group‘s future work plan should be based primarily on the connection of archives as indispensable institutions for the preservation and strengthening of democracy in the European Union and its Member States. In doing so, it draws on the more than decade-old Universal Declaration on Archives, which states the “crucial need of archives for the protection of citizens’ rights” and warns that the relationship between archives and citizens’ rights cannot be separated from the relationship between archives and democracy. A fundamental condition for an open and democratic society and the core mission of archives is to preserve credible and reliable information that is accessible to the public. Well-organized and accessible archives provide citizens with transparency that enables a better understanding of social events and is a prerequisite for aware citizens.

The Strategic Plan adds that history and recent geopolitical events show that democracy cannot be taken for granted, but must be actively promoted and supported, because the strength of the European Union depends on a consensus on shared democratic values and a commitment to fundamental human and civil rights, freedom of speech, the rule of law, gender equality and equal opportunities. As a fundamental objective for the future, the Work Plan states that in an era of increasing disinformation and the emergence and progress of high-tech companies processing large amounts of data, it is essential to strengthen the visibility and role of archival institutions. Their image must be built as professional institutions, responsible not only for assessing and collecting records, but also for actively supporting and participating in their creation. Archives must continue to be a source of valuable and reliable information.

B. THE EUROPEAN COMMISSION'S PLANS FOR THE FUTURE

European Commission President Ursula von der Leyen, presented her political guidelines for the next European Commission 2024-2029 to the European Parliament. She was re-elected to head the Commission in July 2024. Let's take a look at some of the main highlights from her presentation in the European Parliament: "Our Union and our democracy are constant work in progress. And there is more that we can do. We need an ambitious reform agenda to ensure the functioning of a larger Union and to increase democratic legitimacy.«... The rule of law and the fight against corruption will be at the heart of our work /.../ I believe we need Treaty change where it can improve our Union /.../ We need to revise the Framework Agreement to ensure more transparency, more accountability and more presence in the Parliament" (European Commission, 2024).

4. CULTURE AND A RENEWED EUROPEAN UNION

In the above-mentioned vision of the future European Union, culture does not appear as an important field of activity. In fact, it is mentioned only once, in connection with agriculture.

Robert Menasse, a multi-award-winning Austrian writer, essayist and philosopher, some time ago moved to Brussels for four years to write a novel about the European supranational political-economic association. In his novel The

Capital, which some have called the first great novel of the European Union we find a number of writings on the role of culture in the European Union as for example: "Culture was a meaningless ministry without a budget or any weight in the Commission, without influence or power /.../ Culture and Education ministry had zero profile within the European Commission; others gently mocked it /.../ And when people said 'Culture' there was always an undertone, it sounded like Wall Street brokers saying 'numismatics', the hobby of a cranky relative. But even amongst the public, insofar as they were at all interested, the image of the 'European culture' was a poor one." (Menasse, 2020, 26, 35, 36).

It is not customary to cite quotes from novels as evidence for claims in scientific articles. But in this case, I used this example because the novel Capital is much more than just an ordinary novel, more than just a sharp political satire on the EU. It opens up a view into the essence of the work of this supranational organization. Otherwise, a brief look at the website, where the commissioners and their areas are listed, is sufficient. Culture falls under the commissioner who is responsible first for intergenerational justice and young people and only then for culture and sport. (European Commission, College of Commissioners).

5. CONCLUSION

The field of archives needs transformation. First, it is necessary to highlight the legal and administrative dimension, and the necessary contribution to democracy and the rule of law.

It is also necessary to change the relationship between archives and the creators of archives. Their cooperation must become closer. The archivist profession should be made fit for the future. It should combine the profession of archivist in public or historical archives and records manager. The archivist is the future protagonist of the protection of archives. His field extends from the creation of a document to its long-term storage in historical archives. The third pillar of transformation must concern the role of the European Union, which will also need the cooperation of archives of Member States. The field of archives must become a concern and competence of the European Union. Archives, as documents of member states, will have to be preserved. Without archives, it will not be possible

to see mistakes and deviations, correct injustices, find solutions for democracy, particularly during crises, and eliminate shortcomings.

Using the case of Slovenia, we can see how much we need archives, how important it is to preserve documents, not only for research purposes, but also for the needs of legal proceedings and legislation, and for monitoring the activities of government bodies.

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Ivančica Sabadin[1]

TRANSFORMING ARCHIVAL DESCRIPTION INTO SEMANTICALLY ENRICHED FORM USING MACHINE LEARNING[2]

Abstract

Purpose*: The purpose of this paper is to determine if it is possible to transform the archival description in the relational database into an ontology with a machine learning algorithm.*

Method/approach*: The research will be based on the CRISP-ML(Q) method. The following steps will be carried out: Business and data understanding; Data preparation; Modelling and Evaluation.*

Results*: After the transformation of the archival description, the Random Forest classification was used to predict the predicate in the semantic triplets. The results obtained were: precision: 86.1% and accuracy: 96.5%.*

Conclusions / findings*: Based on the results, we can conclude that the hypothesis was confirmed and that the machine learning algorithms are suitable for transforming the archival description in a structured form into an ontology.*

Keywords*: Archival Description, Semantical Enrichment, Machine Learning, RiC-O Ontology, KNIME*

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2 This research was performed in the context of InterPARES Trust AI project (2021-2026).

1. INTRODUCTION

The motivation for this research stems from the recent technological changes, that archives are faced with. Creators are creating and transferring archival materials in both physical and digital form, and archives are being challenged with different ways of storing, managing, and providing access to these materials. Although the long-term storage of archival materials, especially in digital form, is a challenge for archives, the focus of this research will be on the management of archival materials, more specifically on archival description. The Dictionary of Archives Terminology by the Society of American Archivists (hereinafter SAA) offers several definitions of archival description. For the purpose of this research, the following definition will be used: "Description is the creation of an accurate representation of a unit of archival material by the process of capturing, collating, analyzing, and organizing information that serves to identify archival material and explain the context and record system(s) that produced it" (Roe, 2005, 13 as citied in SAA, 2024). As there are many factors influencing the archival description process, it is very difficult to use any definition as the final one. According to the ICA EGAD (2023a, 6), archival description will never be perfect and is influenced by various factors, including the content, context, and perspectives of records managers and archivists. The purposes of archival descriptions are management, preservation and reuse of records. The result of archival description is a finding aid, either in print or online. According to ICA EGAD (2023, 8–9), finding aids produced by using automated means are the predominant method of access today and are still considered as flat, linear documents. Many archival systems are automated and based on relational database technology, which enables archival description in the form of separate entities and the relationships between them. From 1994 until the present day, the valid standard for archival description has been ISAD(G) (General International Standard Archival Description), which was developed by the International Council on Archives (ICA). Alongside ISAD(G), the ICA has also developed the International Standard Archival Authority Records for Corporate Bodies, Persons and Families (ISAAR(CPF)), the International Standard for Describing Functions (ISDF), and the International Standard of Describing Institutions with Archival Holdings (ISDIAH). According to Gueguen et al. (2013, 568), ISAD(G) is widely accepted and used in archival descriptive systems be-

cause it provides a »*single, record-focused, provenance-based description that encompasses all facets of description*«. EAD (Encoded Archival Description) was developed by the Society of American Archivists and is a machine-readable representation of finding aids developed according to the ISAD(G) standard. Similar to EAD, EAC-CPF (Encoded Archival Context – Corporate Bodies, Persons and Families) is also XML[3] schema used »*for describing individuals, families and corporate bodies that create, preserve, use, are responsible for, and/or are associated with archival records in various ways*« (Mazzini and Ricci, 2011, 74). Zou (2019, 3-4) states that archival descriptions are often kept in text format as documents or in relational databases which are used by archival management systems. From the users› point of view, archival descriptions are available in web form based on HTML[4], XML or PDF[5] formats.

Along with archives, other cultural institutions are also aware of changes in the field of information technologies. There are very good examples in libraries and museums. They can be used as a guide for the implementation of new technologies in archives. *"It is crucial to exert control over new methods and technologies used for evaluating the value of potential archival content and ensuring transparency throughout the process which uses such technologies"* (Milovanović, 2024, 46)

The main hypothesis is that machine learning algorithms can transform archival descriptions in structured form into semantically enriched descriptions of archival entities.

This paper is structured as follows: Section 2 presents methodology; the related work is presented in Section 3; the process of data understanding and preparation is analysed in Section 4; Section 5 presents the machine learning workflow for data transformation into semantically enriched descriptions; the results of the evaluation are presented in Section 6; the discussion in Section 7; and the conclusions in Section 8.

2. METHODOLOGY

For the purpose of this research, several methods will be used, the most important being the systematic review of the literature and the CRISP-ML (Q) as the main research method.

3 Extensible Markup Language. More information: https://www.w3.org/TR/xml/.
4 Hypertext Markup Language. More information: https://html.spec.whatwg.org/multipage/.
5 Portable Document Format. More information: https://www.adobe.com/acrobat/about-adobe-pdf.html.

A systematic literature review will be conducted for the section 'Related work', based on defined inclusion and exclusion criteria. The search query 'Relational database ontology transformation' will be used in the following databases: Emerald Insight, ProQuest and Scopus. The exclusion criteria will exclude articles published before year 2022, articles not published in the journals included in the WoS or Scopus system, articles not written in English, Slovenian or Croatian language, unavailable articles and articles not detailed enough for the analysis (posters, editorial notes, abstracts and similar). As the focus is on gaining insight from the latest research in the WoS or Scopus systems, other published forms, such as book chapters, will not be considered.

The method CRISP-ML(Q)[6] as proposed by Studer et al. (2021) consists of the following steps: Business and Data Understanding; Data Preparation; Modelling; Evaluation; Deployment; Monitoring and Maintenance. For the purpose of this research CRISP-ML(Q) will be slightly adapted, as the final model will not be deployed in a real-life situation. In the first step, Business and Data Understanding, the available data in the form of archival descriptions will be analysed. This step determines the amount of data needed for all phases. Data requirements will be defined, and data collection will be validated against these requirements. "*Data preparation serves the purpose of producing a data set for the subsequent modelling phase*" (Studer et al., 2021, 399). According to the authors, data should be cleaned, constructed and standardised in this step. The modelling step will be carried out according to Studer et al. (2021, 401-402), who claim that the requirements and constraints defined in the previous steps are used as inputs to guide the model selection to a subset of suitable models. The authors also emphasise that the literature review is essential to gather published findings and previous results that can serve as a performance baseline. According to the authors, it is important in this step to define model quality measures, select a model and add domain knowledge, train the model, use unlabelled data and pre-trained models, compress the model and ensemble methods. For the evaluation step, an additional set of tests will be prepared and the results will be compared in accordance with the criteria which have been established.

6 Cross-Industry Standard Process model for the development of Machine Learning applications with Quality assurance methodology.

3. RELATED WORK

"*Ontologies help to describe knowledge of a domain and make machines understand the user requirement*" (Velu and Thangavelu, 2022, 4708). The authors go on to state that the "*ontology is a World Wide Web Consortium (W3C) approved technology that provides an advantage of standard vocabulary with added robustness*". Mosca et al. (2023, 16842) argue that relational databases are poor from a semantic point of view and that transformation into an ontology allows the database to be used for semantic purposes. The authors state, that the limitation of the database is in its structure, which consists of tables linked by foreign key constraints. In the conclusion Mosca et el. (2023, 16850) state: "*Two different problems can be faced in the context of the mapping between RDB*[7] *and ontologies. The first is to extract an ontology from an RDB, and the second is to map a relational database to an ontology that already exists*". Liu et al. (2024, 1) state that structured data, found in databases often lacks contextual readability.

In the area of transforming relational databases into ontologies, there has been a lot of recent research into transforming them into knowledge graphs. "*When a large number of individuals is represented in a graph that employs an ontology as its schema, we can consider it a Knowledge Graph (KG)*" (Silva et al., 2022, 3). Since knowledge graphs and ontologies are directly related, some of the research that presents the transformation from a relational database to a knowledge graph is analysed.

Huang et al. (2023) propose an approach for digital cultural heritage management based on knowledge graphs and deep learning algorithms. The knowledge graph is built based on a domain ontology. Due to fragmented information storage solutions in cultural heritage databases, there is no proper correlation between data. According to the authors, knowledge graphs could provide a solution for the integration of data in various forms and its visual interpretation. Huang et al. (2023, 4) define knowledge extraction as "*the process of identifying subjects, relations, and objects represented as (subject, relation, object).*" Their framework enables data extraction from semi-structured, unstructured, and structured data. The authors evaluated the proposed framework using the case study of the Palace Muse-

7 Relational database.

um in China. Part of the CIDOC-CRM[8] ontology and the OWL[9] language were used to build the domain ontology.

Costa et al. (2021) evaluated Graph Databases and Object-Graph Mappers in CIDOC-CRM-compliant digital archives. The authors concluded that a relational database would not be able to handle all the possible types of entities and relationships in the model, so they embarked on creating a transactional system based on a graph database.

Hofer at al. (2024) presented the current state of knowledge graph construction. The authors pointed out that mapping languages can be used to transform relational databases to RDF[10]. The authors provided two examples: R2RML[11] and RML[12], for which programming tools are also available: SDM-RDFizer for RML and Karma for an R2RML alternative called K2RML. Further, Hofer et al. (2024, 18) state that ontology learning has two main subfields: "*extracting ontologies from unstructured text and from structured data like relational databases*". Although reverse engineering and mapping are common techniques for relational databases, the authors argue that the use of Large Language Models has improved semi-automatic methods in both areas.

The process for the creation of knowledge graph compliant with the HERCULES ontology was described by Chaves-Faga et al. (2022). The HERCULES project "*aims to build a semantic layer to harmonize the knowledge and data of the information systems of Spanish research-performing organizations*" (Chaves-Faga et al., 2022, 1). In their solution, the authors used the R2RML mapping rules for the inputs from the Universitas XXI database. The authors argue that their workflow is domain independent and can be applied to any other domain or database instance. The workflow presented includes the following steps: *"(i) automatic generation of mapping templates; (ii) divide and conquer approach for systematic mapping; (iii) mapping template refinement; (iv) systematic filling of the rules; (v) validation of the mapping with domain experts in the loop; and (vi) RDF generation*" (Chaves-Faga et al., 2022,5).

8 CIDOC Conceptual Reference Model. More information available at: https://cidoc-crm.org/.
9 Web Ontology Language. More information available at: https://www.w3.org/OWL/.
10 RDF – Resource Description Framework.
11 The language for mappings from relational databases to resource description framework datasets. More information: https://www.w3.org/TR/r2rml/.
12 Generic mapping language. More information: https://rml.io/specs/rml/.

He et al. (2023) proposed a framework for the construction of island knowledge graph and knowledge reasoning. Data collection has been performed for unstructured, semi-structured and structured data sources. For the structured data in Mysql[13] database, the authors used Mysql data conversion tool. The tool enabled the conversion of data in a database into the triple form, also the mapping of the structured data in ASCII[14] format was collected based on the number of characters of the concept to be mapped.

Xu et al. (2022) proposed a method for semantically annotating structured data sources using machine learning, graph matching and modified subgraph mining. "*A new pipeline for automatically learning the semantic model of a new structural data source is arranged by utilizing several existing semantic models, domain ontologies, and domain specific knowledge graphs*" (Xu et al., 2022, 2). The authors argue that their approach can generate high-quality semantic models and that can outperform two other state-of-the-art systems in both correctness and results.

Osman et al. (2024) evaluated uncertainty in automated ontology matching. For research purposes, the authors used a previously developed conversion tool to systematically translate data in relational tables into ontologies. "*The results clearly show the significant uncertainty resulting from a lack of data semantics that reduces the accuracy of automatic ontology matching methods, even considering a relatively simple case study*" (Osman et al., 2024, 16). Furthermore, the authors argue that improving the semantics of the data would be critical to reducing uncertainty and improving system performance.

In the year 1998 IFLA (International Federation of Library Associations and Institutions) published the FRBR model (Functional Requirements for Bibliographic Records). After the publication of this model, two new models were developed, which complemented the basic FRBR model and together are called the "FRBR Family of Conceptual Models".

CIDOC - CRM or CIDOC Conceptual Reference Model is currently valid for museums. An ontology is also available for this conceptual model. CIDOC-CRM is also a valid ISO standard: *ISO 21127:2023 Information and documentation - A reference ontology for the interchange of cultural heritage information*. This

13 Open source relational database management system.
14 American Standard Code for Information Interchange.

standard is well established in the cultural heritage field and as such is the main subject of numerous scientific studies.

In 2012, the International Council on Archives (hereafter ICA) established EGAD or the Expert Group on Archival Description, which is responsible for developing the new standard, now known as Records in Contexts (hereafter RiC). RiC consists of the following documents Records in Contexts - Foundations of Archival Descriptions (RiC-FAD); Records in Contexts - Conceptual Model (RiC-CM); RiC - Ontology (RiC-O) and RiC - Application Guidelines (RiC-AG), which are currently under development.

Rajh (2024, 9) describes RIC as an "*advanced professional descriptive standard that enables archivists to describe record resources and other essential entities and their attributes and relations.*" The author further states that "*RiC-O encompasses classes and individuals, as well as data and object properties related to archival entities – record resources, their instances, agents involved with creating records or thematized in records, dates, places, events, and other entities.*"

4. DATA UNDERSTANDING AND PREPARATION

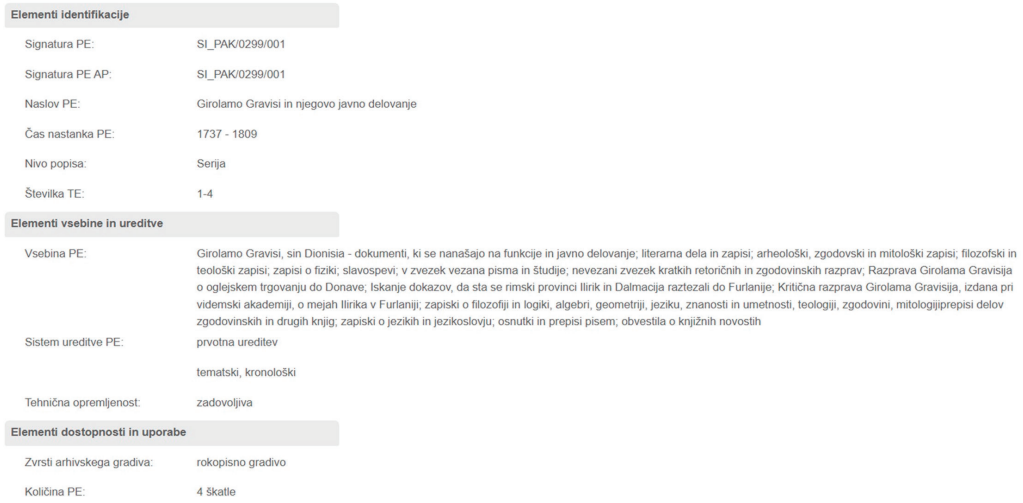
In this phase, business and machine learning criteria should be defined. In this research, we hypothesised that the archival description in a structured form is suitable for transformation into semantically enriched descriptions using machine learning algorithms. The aim is to create a workflow for transforming the archival description into semantically enriched descriptions of archival entities using data mining and machine learning with an accuracy and precision above 80%. The metrics will be calculated based on true positive, false positive, true negative and false negative results.

For the experiment the Records in Contexts ontology (ICA EGAD, 2024) will be used and during the experiment we must identify entities, attributes and relations defined in the ontology and map these concepts to the archival description. Finally, the data will be exported in a standardised ontology format, suitable for representation.

For the purpose of the study, data is collected from the joint database of Slovenian archives. The Slovenian Public Archives Service uses the scopeArchiv[15] software for archival description. The process of transformation targets data in a structured form that is stored in the scopeArchiv database.

15 Archive software. More information available at: https://www.scope.ch/en/product-overview/scopearchiv/.

Figure 1: Example of an original record (SI _PAK/0299/001 Girolamo Gravisi in njegovo javno delovanje)



Elementi identifikacije	
Signatura PE:	SI_PAK/0299/001
Signatura PE AP:	SI_PAK/0299/001
Naslov PE:	Girolamo Gravisi in njegovo javno delovanje
Čas nastanka PE:	1737 - 1809
Nivo popisa:	Serija
Številka TE:	1-4
Elementi vsebine in ureditve	
Vsebina PE:	Girolamo Gravisi, sin Dionisia - dokumenti, ki se nanašajo na funkcije in javno delovanje; literarna dela in zapisi; arheološki, zgodovski in mitološki zapisi; filozofski in teološki zapisi; zapisi o fiziki; slavospevi; v zvezek vezana pisma in študije; nevezani zvezek kratkih retoričnih in zgodovinskih razprav; Razprava Girolama Gravisija o oglejskem trgovanju do Donave; Iskanje dokazov, da sta se rimski provinci Ilirik in Dalmacija raztezali do Furlanije; Kritična razprava Girolama Gravisija, izdana pri videmski akademiji, o mejah Ilirika v Furlaniji; zapiski o filozofiji in logiki, algebri, geometriji, jeziku, znanosti in umetnosti, teologiji, zgodovini, mitologijiprepisi delov zgodovinskih in drugih knjig; zapiski o jezikih in jezikoslovju; osnutki in prepisi pisem; obvestila o knjižnih novostih
Sistem ureditve PE:	prvotna ureditev tematski, kronološki
Tehnična opremljenost:	zadovoljiva
Elementi dostopnosti in uporabe	
Zvrsti arhivskega gradiva:	rokopisno gradivo
Količina PE:	4 škatle

The units of description of the Regional Archives Koper, published in the Virtual Archives Reading Room[16] and without defined accessibility restrictions, will be taken into account. After inspection, a total of 4.330 units are selected as shown in Table 1. Figure 1 shows an example of published data in its original form.

Table 1: Archival fonds included in the research

Archival fond	Number of selected units of description
SI_PAK/0024/002 Projekti pri OLO Koper	2.335
SI_PAK/0412 Cimos Koper	949
SI_PAK/1046 TOMOS Koper	646
SI_PAK/0299 Rodbina Gravisi	230
SI_PAK/0341 Zbirka pečatnikov	172
Total	**4.332**

The scopeArchiv tool allows data to be exported in text or XML form. For research purposes, data was exported in text form. The quality of the data was verified and it was cleaned after the export. The data collected included archival descriptions from five archival fonds, as shown in Table 1. Therefore, the first step of the data quality check was to cross-check five export files. When the text files were imported into Microsoft Excel, the column names and data types were

16 More information available at: https://vac.sjas.gov.si/vac/userhelp/aboutVAC.

checked. At the end of the first step, each file had 114 columns with identical data types. From an archival point of view, the archival description should contain elements of description that are essential for information exchange (ICA, 2000, 9). According to the UVDAG (2017) these elements are Reference Code, Title, Date(s), Level of Description, Extent and Quantity. It has been verified that the data collected contains all the essential elements of description.

The data cleaning process began with the removal of empty and duplicate columns. A total of 70 columns were removed for the following reasons: 56 empty columns, 6 columns with duplicate data and 6 columns with data that were not important for the research. 82% of the data was in text format, 11% in date format and 7% of the data was in number format. As part of the data cleaning process, all date columns were checked for errors and inconsistencies. At the end of the data cleaning process the data was exported to a CSV[17] file for further processing with the data mining and machine learning.

5. MACHINE LEARNING WORKFLOW FOR DATA TRANSFORMATION

Three tools were tested and analysed to build the machine learning model: Orange[18], Altair AI Studio[19] and KNIME[20] based on selection criteria shown in Table 2. As KNIME was the only tool with built-in nodes for the SPARQL[21] and semantic triplets, it was concluded that KNIME was the most appropriate tool for the machine learning model.

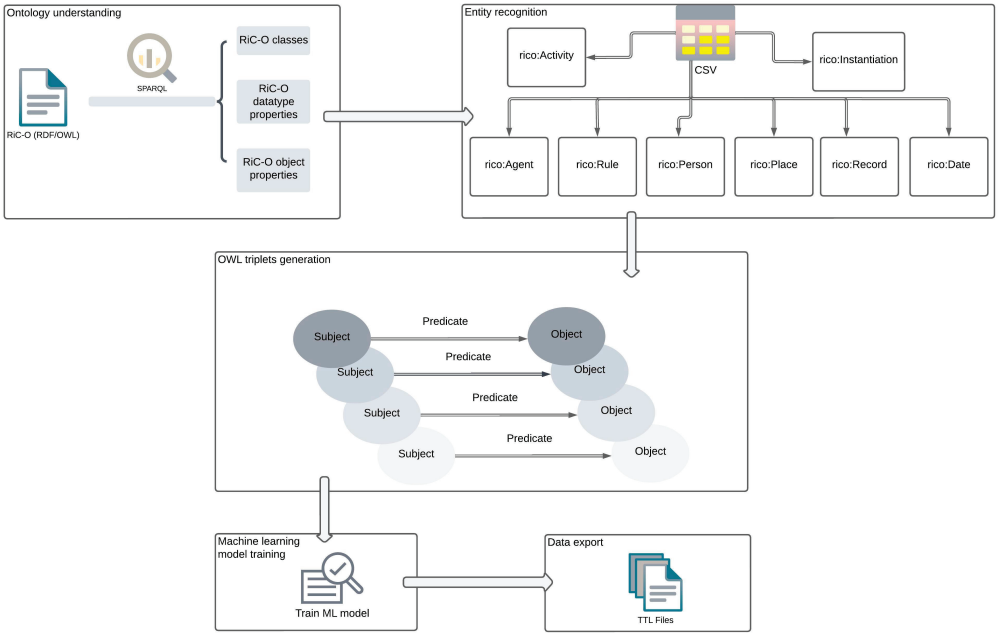
Table 2: Tool selection criteria

Criteria Tool	Orange	Altair AI studio	KNIME
Open-source tool	YES	NO	YES
Import data in csv format	YES	YES	YES
Import ontology	YES	NO	YES
SPARQL	NO	NO	YES
Semantic triplets recognition	NO	NO	YES

17 Comma Separated Values.
18 More information available at: https://orangedatamining.com/.
19 More information available at: https://altair.com/altair-ai-studio.
20 More information available at: https://www.knime.com/.
21 Query language. More information available at: https://www.w3.org/TR/sparql11-query/.

The process of transforming the archival description into semantically enriched descriptions was organised into the following steps: Ontology understanding, entity recognition, OWL triplet generation, ML model training and ontology data export as shown in Figure 2.

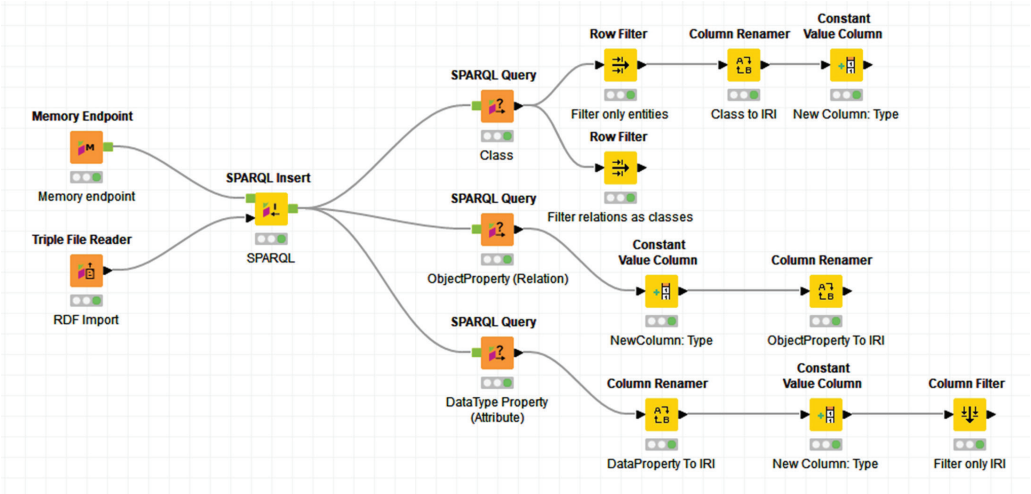
Figure 2: Methodology for the transformation of the archival description to semantically enriched descriptions



5.1. ONTOLOGY UNDERSTANDING

In the first step of ontology understanding, the Records in Contexts Ontology (RiC-O) was queried using the SPARQL nodes in KNIME. The RiC-O ontology is available in HTML and RDF/OWL form. For the purpose of the research, the ontology in RDF/OWL form was used, since the KNIME enables transformation of ontology into triplets (subject, predicate, object) it was necessary to extract relevant data about entities (RiC-O classes), attributes (RiC-O datatype properties) and relations (RiC-O object properties). The example of the KNIME workflow is shown in Figure 3.

Figure 3: Ontology understanding (KNIME)



For better understanding, three separate SPARQL queries were used to acquire information about entities, attributes and relations. The example of the SPARQL query used to acquire information about attributes is shown in Figure 4. Only the English label was considered as the labels are available in French, Spanish and English.

Figure 4: The example of SPARQL query

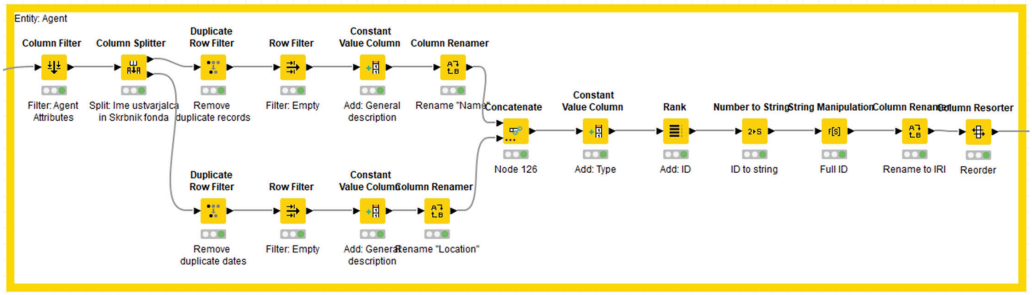
```
PREFIX rdfs: <http://www.w3.org/2000/01/rdf-schema#>
PREFIX owl: <http://www.w3.org/2002/07/owl#>

SELECT ?DatatypeProperty ?label
WHERE {
  ?DatatypeProperty a owl:DatatypeProperty .
  ?DatatypeProperty rdfs:label ?label .
  FILTER (lang(?label) = "en")
}
ORDER BY ?label
```

5.2. ENTITY RECOGNITION

In the second phase entities were retrieved from the input data and all the information was labelled according to RiC-O. Rules for the creation of entities were used as proposed by Sabadin (2024, 16-17). For this task, KNIME nodes were used for row and column manipulation, as shown for the *rico:Agent* class in Figure 5.

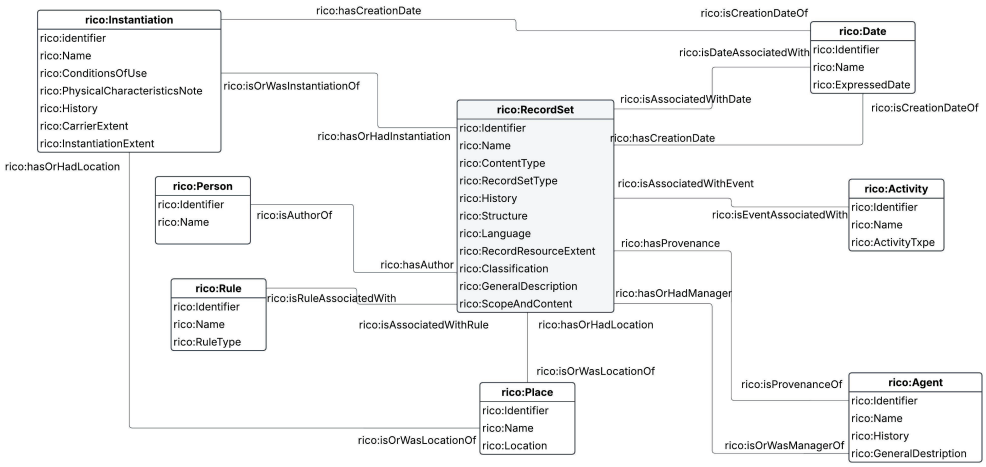
Figure 5: rico:Agent recognition and semantic labelling (KNIME)



From the input data, following classes were created: *rico:RecordSet, rico:Agent, rico:Date, rico:Person, rico:Activity, rico:Rule, rico:Place*. Each class was represented by a separate table with columns as datatype properties. Since in the original data, the columns were named according to the fields in the scopeArchiv forms, the process of semantic labelling was performed to align the input data with the RiC-O (Figure 6). "*Semantic labelling requires annotating source attributes with classes and properties of ontologies*" (Pham et al., 2016, 1)

The archival description in scopeArchiv contains specific information that couldn't be directly mapped to RiC-O. For example, in RiC-O there is no direct mapping for the field *"Published on the Portal"*. Therefore, the class *rico:Activity* was created and linked to the class *rico:RecordSet* with the relation *rico:isAssociatedWithEvent*. Each record in scopeArchiv can be associated with multiple dates (creation date, modification date and date range). Because of this, two relationships are possible between the *rico:RecordSet* and *rico:Date* classes, namely *rico:hasCreationDate* and *rico:isAssociatedWithDate*.

Figure 6: Created classes, datatype properties and object properties



Since all records were at the fond, subfond, series of file level, only the *rico:RecordSet* class was used. Finally, the tables were merged, and the triplets were created in the form (subject, predicate, object). The Figure 7 shows triplets for the record "SI_PAK/0024/002 Projekti pri OLO Koper".

Figure 7: Generated triplets (sub, pre, obj) (KNIME)

Row ID	S sub	S pre	S obj
Row0_1	SI_PAK/0024/002	rico:isAssociatedWithDate	rico:date/SI_PAK_Date_11
Row0_2	SI_PAK/0024/002	rico:identifier	SI_PAK/0024/002
Row0_3	SI_PAK/0024/002	rico:name	Projekti pri OLO Koper
Row0_4	SI_PAK/0024/002	rico:contenttype	spisovno gradivo
Row0_5	SI_PAK/0024/002	rico:isAssociatedWithEvent	rico:activity/SI_PAK_Activity_1
Row0_6	SI_PAK/0024/002	rico:recordsettype	Podfond
Row0_7	SI_PAK/0024/002	rico:isAssociatedWithEvent	rico:activity/SI_PAK_Activity_3
Row0_8	SI_PAK/0024/002	rico:isAssociatedWithRule	rico:Rule/SI_PAK_Rule_1
Row0_9	SI_PAK/0024/002	rico:isAssociatedWithRule	rico:Rule/SI_PAK_Rule_4
Row0_10	SI_PAK/0024/002	rico:isAssociatedWithPlace	rico:location/SI_PAK_Location_5
Row0_11	SI_PAK/0024/002	rico:isAssociatedWithDate	rico:date/SI_PAK_Date_224
Row0_12	SI_PAK/0024/002	rico:history	Prvi prevzem gradiva (131 škatel) je bil opravljen let...
Row0_13	SI_PAK/0024/002	rico:structure	tematski, kronološki
Row0_14	SI_PAK/0024/002	rico:language	slovenski
Row0_15	SI_PAK/0024/002	rico:hasCreator	rico:agent/SI_PAK_Agent_4
Row0_16	SI_PAK/0024/002	rico:recordresourceextent	38.00
Row0_17	SI_PAK/0024/002	rico:classification	A620 Okraji 1945 do 1965 (rubrika)
Row0_19	SI_PAK/0024/002	rico:scopeandcontent	Glavni projekti javnih in zasebnih zgradb
Row0_20	SI_PAK/0024/002	rico:hasOrHadLocation	rico:location/SI_PAK_Location_3
Row0_21	SI_PAK/0024/002	rico:hasAuthor	rico:person/SI_PAK_Person_3
Row0_22	SI_PAK/0024/002	rico:hasOrHadInstantiation	rico:instantiation/SI_PAK/0024/002_i1

5.3. OWL TRIPLET GENERATION

"Each triplet is written in the form (sub, pre, obj), where the subject identifies the class or the entity, predicate represents the property and the object specifies the specific value" (Sutejo et al., 2024, 1121).

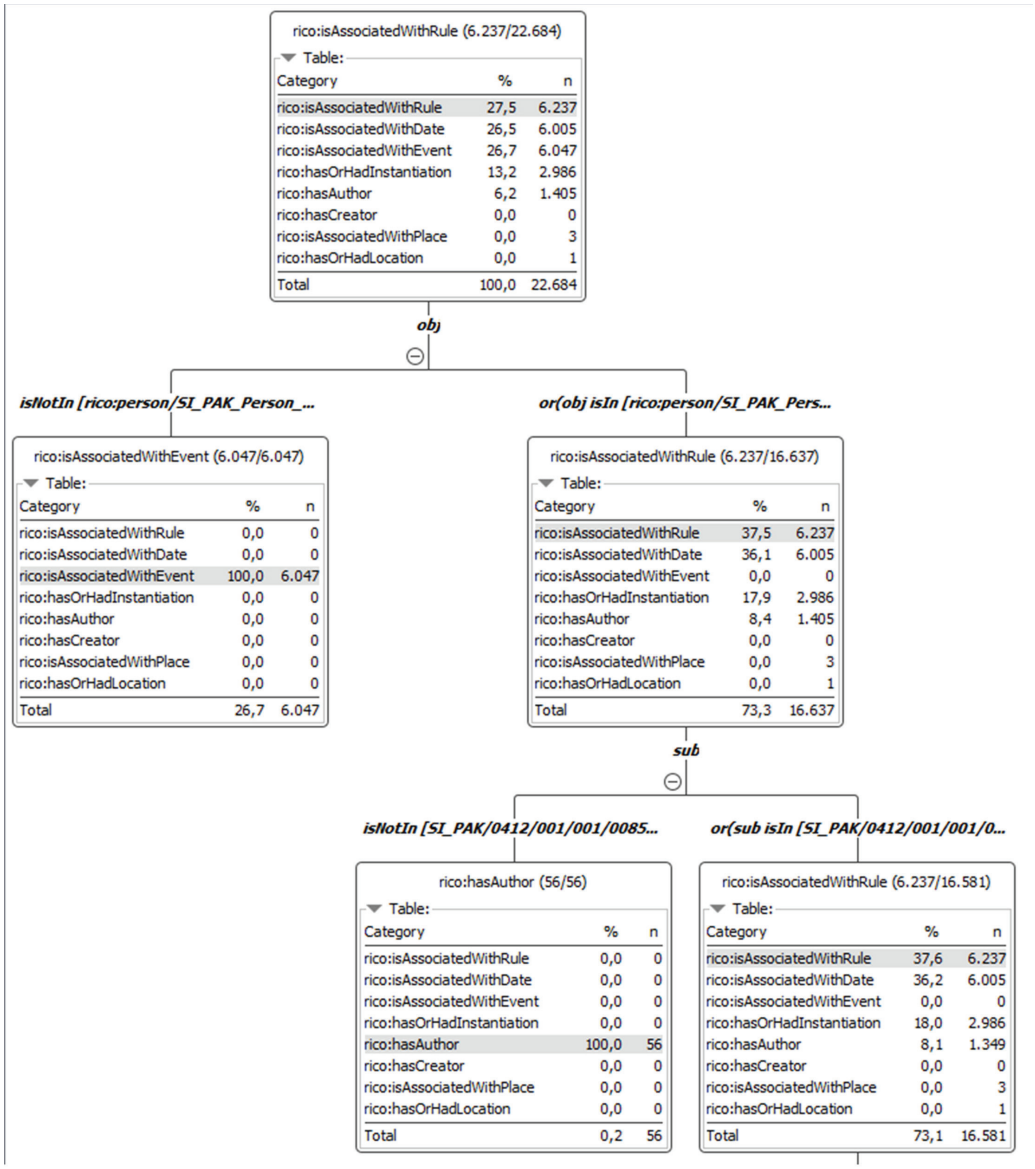
If the object is derived from the attribute or the datatype property, then the predicate will be named after the datatype property, for example, the triplet that defines the name of the record will be in the form: (record identifier, attribute name, attribute value). The example (Figure 7) is ("SI_PAK/0024/002", "rico:name", "Projekti pri OLO Koper"). For the object derived from the relation, the triplet form is slightly different: (record identifier, relation, target class). For example, the triplet ("SI_PAK/0024/002", "rico:hasCreator", "rico:agent/SI_PAK_Agent_4") links the record with the identifier SI_PAK/0024/002 to the agent with the identifier SI_PAK_Agent_4. From the starting 4.332 records, 54.646 triplets were generated.

5.4. MACHINE LEARNING TRAINING

For the purpose of this research the Random Forest classification was used. "*A random forest is a classifier consisting of a collection of treestructured classifiers* {$h(\mathbf{x},\Theta k)$, k=1, ...} *where the* {Θk} *are independent identically distributed random vectors and each tree casts a unit vote for the most popular class at input* **x.**" (Breiman, 2001, 2). Random forest classification was used by Nkisi-Orji et al. (2019) in ontology alignment research. The authors state that random forest uses multiple decision trees to improve classification. Decision trees have shown very good results in discovering and eliminating the incorrect relationships in ontologies (Xu et al., 2022).

Since the subject and object are already known from our data, the model was trained to predict the predicate that depends on both the subject and the object. For training, 80% of the triplets were used with the "Draw randomly" option and the random seed. Three reports were generated as a result of the training: Out-of-Bag Predictions, Attribute Statistics and Random Forest Model. The Tree Views were also available after the training phase (Figure 8).

Figure 8: Random Forest Tree View (KNIME)



5.5. DATA EXPORT

In the final step, the data was filtered and exported so that there was a separate TTL[22] file for each archive fond and the entities used (agents, activities, persons, rules, instantiations, dates and places). In the TTL file describing the record set, there were relationships to other entities corresponding to created maps containing TTL files.

22 RDF turtle syntax. More information available at: https://www.w3.org/TR/turtle/

The structure of the TTL file exported from the KNIME is shown in Figure 9. The KNIME tool also allows export to RDF format. The TTL file format focused on literals was used because of its better clarity and better control for research purposes. However, either format could form the basis of ontology-based programming applications. The structure of the files can be adapted to improve the interlinking of existing archival descriptions between archives and other institutions.

Figure 9: Exported data in TTL file format

```
<SI_PAK/0024/002/00001>
        <rico:contenttype>              "spisovno gradivo";
        <rico:hasAuthor>                "rico_person/SI_PAK_Person_3";
        <rico:hasOrHadInstantiation>    "rico_instantiation/SI_PAK/0024/002/00001_i1";
        <rico:identifier>               "SI_PAK/0024/002/00001";
        <rico:isAssociatedWithDate>     "rico_date/SI_PAK_Date_12" , "rico_date/SI_PAK_Date_262";
        <rico:isAssociatedWithEvent>    "rico_activity/SI_PAK_Activity_1" , "rico_activity/SI_PAK_Activity_3";
        <rico:isAssociatedWithRule>     "rico_rule/SI_PAK_Rule_1" , "rico_rule/SI_PAK_Rule_4";
        <rico:language>                 "slovenski";
        <rico:name>                     "Stanovanjski blok V. Belveder v Kopru - predračunski elaborat";
        <rico:recordsettype>            "Združeni dokumenti";
        <rico:scopeandcontent>          "Investitor: Zavod za stanovanjsko izgradnjo Koper;  Projektant: Edo Mihevc";
        <rico:structure>                "prvotna ureditev" .
```

6. EVALUATION RESULTS

This section presents the evaluation results of the Random Forest classification model. The model's effectiveness in predicting the predicate of the semantic triplets was determined using precision and accuracy metrics. Handelman et al. (2019, 42) define accuracy as »*the number of correct predictions made as a ratio to all predictions made*«. Precision is, according to Schlosser et al (2024, 8) »*an essential evaluation metric used to assess the accuracy of classification models, particularly focusing on the correctness of positive predictions*. «

Using KNIME nodes to manipulate tables and the data within them, the archive description was transformed into semantic triplets of the form {subject, predicate, object}. A total of 54,646 triplets were generated. Of these, 80% were used for training and 20% for testing. Since the goal was to achieve a higher level of accuracy, a larger training set was used to ensure there was a sufficient amount of data for learning. The Random Forest classification was used to predict the predicate of the semantic triplets. The results obtained were precision: 86.1% and accuracy: 96.5%. The highest number of false negative predicates was generated when predicting the *rico:hasOrHadInstantiation* relationship, and the highest number of false positives when predicting the *rico:isAssociatedWithDate* relationship. These results could be improved by providing the model with additional information,

such as that relating to the domain and range, which is part of the RiC-Ontology.

After the experiment with the machine learning algorithm, the data was exported to the TTL file shown in Figure 9.

7. DISCUSSION

This research, as a part of the InterPARES Trust AI project (2021-2026), was focused on determining the benefits of new technologies, primarily machine learning, for archival description. This research focused on methods and procedures for transforming the archival description into semantically enriched archival descriptions of archival entities harmonized with the Records in Contexts Ontology. RiC-O is fully aligned with the Records in Contexts Conceptual Models, a framework for describing archival records at a high level and is suitable for describing archival materials in both physical and digital form. During this research, the methodology for the transformation was proposed. Nowadays, archives are using program applications that store their data in a relational database for describing archival materials. In that way, data is stored in a safe way and is available to the users of archives through different online catalogues specialized for the archival materials. In most cases the program applications describe archival materials based on the ISAD(G)2 standard, published by ICA in 2000, which is primarily used for describing archival materials in a physical form and creating archival finding aids in the form of the archival inventory. To make these descriptions more suitable for new technologies, we need to add meaning or semantics to our data, which is possible with Semantic Web technologies, especially ontologies.

In the process of converting archival descriptions into semantically enriched, RiC-O-harmonised descriptions, semantic triplets had to be generated. There were several challenges in the process of generating semantic triplets that affected the results. Some of the data was not included in the ISAD(G) standards but was important for creating and maintaining the records. For this reason, the *rico:activity* class has been created for the activities of creating and modifying records. Including all data from the original archival description is important, as this is the only way to guarantee its integrity and authenticity.

The research wasn't focused on the development of tools for the transformation, but on the use of available tools that allow the use of data mining and machine

learning. In this way, we could test whether these new technologies are even suitable for the transformation, which could help to describe archival materials in a way that could be of benefit to archives and their users.

In the process of transformation, we need to consider the change in the logic of archival description, because the ontology is not only about describing what we perceive in the materials, but we also need to enable the description of other entities involved in the lifecycle of the archival materials. This logic hasn't been so prominent in the previous processes of archival description, and this is the reason why most of the classes (other than record set) are quite empty in terms of datatype properties. For example, the class *rico:place* only contains information about the identifier, the name and the physical location. According to RiC-O, we can include other valuable information about the places that are important either for the creation of the archival material or for its storage.

After the data mapping and transformation, the results were the semantic triplets shown in Figure 7. As described in section 5.4, we experimented with the prediction of the predicate of the semantic triplet, because the predicate wasn't directly included in the previous archival description, however, it can be generated based on the knowledge obtained from the RiC-O and the RiC-CM. In our example, 54,646 triplets were generated directly from 4,332 archival records, and 26,733 triplets were generated to describe and connect other entities included in the description of the archival materials. It is obvious that we are dealing with large datasets where manual work is not an option. Novak (2023, 313) states that at the end of 2022 the joint database of Slovenian archives contained more than 2,820,000 records and that the number of records is increasing linearly every year. Therefore, if we are interested in adding semantics to existing archival records, we need solutions that can handle large amounts of data.

Although KNIME is a tool with many possibilities for working with ontologies, there are several issues that need to be addressed for future research. The KNIME nodes for export to ontology supported formats should be customised to allow the user to define the order of the records (from the fond to the subordinate levels) and to include other entities. Also, there are no built-in tools for graphical representation of the ontology and the researcher has to combine other tools to graphically represent the ontology with KNIME.

The results obtained met the initial criteria with a precision of 86.1% and an accuracy of 96.5% in predicting the predicate of semantic triplets. From a machine learning point of view, these results are satisfactory and can be used to confirm our hypothesis. From another point of view, the results show that we need to examine more closely how to prepare our data and how to transform it into an ontological form using artificial intelligence to obtain even better results.

8. CONCLUSION

The hypothesis of this paper is that the archival description in a structured form is suitable for transformation into a semantically enriched descriptions using machine learning algorithms. Based on the proposed methodology and the results of the Random Forest classification, we can conclude that the hypothesis has been confirmed and that the machine learning algorithms are suitable for transforming the archival description in a structured form into semantically enriched description, harmonised with RiC-Ontology.

Ontologies, as one of the semantic web technologies, have recently become very important for cultural heritage. Besides libraries and museums, archives are also working on the development of ontologies suitable for representing archival descriptions, especially in the era of archival materials in the digital form. As digital materials are created and stored in a different way from physical archival materials, archives are challenged to describe and store them. Description and preservation are both equally important; if archives don't know what they have, how can they guarantee long-term preservation? Ontologies allow archives to describe material at a higher level, so that archival descriptions can be identified, defined and related to each other. An ontology developed specifically for archives is the Records in Contexts - Ontology, which was published in December 2019 (Clavaud and Wildi 2021, 5). RiC-O is of great interest to the archival community today, so we need to find ways to implement it in the most efficient way for archives and their users. As the use of ontologies is relatively new in the field of archives, we need more research on the implementation and adaptation of available ontologies. Based on this research, we could enable progress towards ontology-based solutions that could improve long-term preservation and access to archival materials.

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ARCHAEOLOGICAL ARTEFACTS AND THEIR CATALOGUING: COMPARISONS WITH ARCHIVAL PRACTICE

Abstract

Purpose*: Certain archaeological artefacts, depending on the definition of "what constitutes an archival document," can be treated in accordance with the principles of archival theory and practice. This article examines archaeological artefacts that bear inscriptions and are catalogued using archaeological methods and compares this approach with the cataloguing practices used for archival documents.*

Methodology*: The article discusses appropriate cataloguing practices within archival science, i.e. how archival documents are recorded. A comparative methodology is thus proposed.*

Results*: Through presentation and comparison, the article outlines cataloguing practices and identifies procedures that apply equally to the cataloguing of archaeological artefacts and archival documents and highlights potential shared elements.*

Conclusions*: The results of this research demonstrate the compatibility of cataloguing archaeological artefacts and archival documents, opening new possibilities and outcomes in the context of digitization and the application of artificial intelligence.*

Keywords*: archaeological artefacts, archival documents, cataloguing, shared elements, comparison.*

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INTRODUCTION

This article seeks to explore the question of *how archaeologists catalogue archaeological artefacts that contain written inscriptions or texts*, which archivists would typically define as archival documents. In archival theory and practice, any object that possesses a substrate, a form of recording, and meaningful content is considered an archival document and is catalogued according to established (or varied) methods. A comparison between the cataloguing of archaeological artefacts and archival documents that share these elements —substrate, mode of recording, and content — may be of interest to both archaeologists and archivists.

The respective cataloguing methods in both disciplines may benefit archaeological science on the one hand and archival science on the other. Both disciplines create catalogues for research and presentation purposes, intended for both professional and general audiences.

With such catalogues, we aim to spark increased interest in archaeological artefacts on the one hand and in archival documents on the other.

The selected examples follow the principle of *sine ira et studio* and are not subject to any additional selection criteria.

PRESENTATION OF ARCHAEOLOGICAL ARTEFACTS (ARCHAEOLOGY) FOR THE PURPOSES OF THIS RESEARCH

For a better understanding of the present study, it is necessary to begin with a brief introduction to the origin and definition of archaeological artefacts—with or without inscriptions—and the associated academic discipline.

The common aim of the disciplines concerned with Antiquity is to gain insight into the life-worlds and living conditions of past human societies through material remains.

While the field of Antiquity studies up until the 19th century primarily focused on the ancient cultures of Greece and Italy, the exploration of the ancient civilizations of Mesopotamia (Western Asia) and the regions of Central and Northern Europe led to the emergence of further specialised disciplines. These include Classical Archaeology, Roman Provincial Archaeology, Near Eastern Archaeology, Prehistoric Archaeology, Egyptology, and others (Eggert, 2000; Höscher, 2002; von Soden, 1985).

The methods used to study material culture or remains are often interdisciplinary, although they may vary significantly depending on region and period. Such interdisciplinary methods first and foremost involve the documentation of material remains, though this is subject to a variety of local preservation conditions. In general, material remains unearthed during archaeological excavations can be divided into different groups: on one hand, all man-made objects (artefacts), and on the other, archaeological features resulting from human activity. In certain periods and regions, buildings, architectural elements, as well as archaeozoological and archaeobotanical remains are also found.

Today, material remains are more often discovered during so-called rescue excavations than research excavations. These are carried out as part of construction and development projects (e.g. Fera, 2019, 147). Research excavations usually follow a specific research question and are guided by prior knowledge regarding the expected types of finds, periods, and structures. In contrast, rescue excavations often start without any clear expectations regarding the finds. Both research and rescue excavations employ invasive and non-invasive methods (such as geophysical surveys or LiDAR), with the latter being of particular importance since every excavation is inherently destructive, whereas non-invasive methods preserve the archaeological context.

Excavations follow excavation and documentation standards defined by each country (e.g. Jurišić et al., 2019; Janežič et al., 2018). The goal is to achieve as detailed a documentation of the context as possible, which is essential for later scientific interpretation. The application of various scientific (natural science) methods has become a standard component of archaeological analysis and has greatly expanded our knowledge (Fera, 2019, 149).

In addition to the material remains recovered from excavations — which may include artefacts with inscriptions or writing such as cuneiform tablets — there are also finds that were already above ground when discovered. These include inscriptions on stelae, statues, buildings, or rock surfaces, such as the Behistun Inscription from the late 6th/5th century BCE in present-day Iran, commissioned by the Achaemenid king Darius I (e.g. Koch, 1992, 13–22, pl. 1–4) or inscriptions on buildings in Persepolis, the capital of the Achaemenid Empire (e.g. Shahbazi, 2013, 22, 38 fig. 19, 118, 119 fig. 97). These are among the earliest textual documents from the ancient Near East brought to Europe by travelers in the 18th-19th century.

The study of inscriptions — epigraphy — is considered an independent discipline within the field of Antiquity studies (e.g. Bodel, 2001). However, as noted, inscribed artefacts can originate from diverse archaeological contexts and may be documented using various archaeological methods. This is also the case with the examples in this study.

As already mentioned, archaeological excavation destroys the context, which is why precise documentation is essential (Fera, 2019, 148–149). In the past, analogue methods such as drawings, photographs, and levelling were used. Today, digital methods dominate, including detailed 3D documentation using total stations, GIS, and terrestrial laser scanning. Exact context documentation is critical for subsequent analysis, including the stratigraphic positioning of artefacts, which is vital for dating.

Processing and analyzing all artefacts from an excavation can be a lengthy and labour-intensive task, ultimately aimed at publishing the results (cf. Janežič et al., 2018, 41). All finds must be cleaned, possibly reconstructed, drawn, photographed, described, scientifically analysed depending on material and research question, and catalogued. The entire process — from planning to publication — generates a vast amount of analogue and digital data that must be archived.

Considering this process — from data collection to the creation of an archive of an archaeological project (cf. Janežič et al., 2018, 45) — this study will examine how inscribed artefacts from archaeological contexts are presented and scientifically processed, and to what extent their documentation overlaps with archival science practices.

DEFINITION OF AN ARCHIVAL DOCUMENT

In general terminology, archival material exists at various levels and in different forms. In this study, we follow the definitions laid out in the ZVDAGA Act and its implementing regulations, where archival material is often described as being of scientific and cultural importance and as a cultural monument. Broader interpretations of what constitutes an archival document can be found in both domestic and international literature. Such documents are selected from documentary material already during the phase of their creation.

For the purposes of this study, I have chosen examples of archival documents that are held in archives around the world and often represent the most important and prominent components of archival collections and fonds. These are charters, which are in the narrow sense written legal instruments that confirm established or recorded data and facts. Medieval charters are linked to rulers, monasteries, popes, cities, and individuals, and they are generally well-researched and processed by experts.

In our contribution, we observe that charters were recorded on various writing materials such as wax, papyrus, and most commonly, parchment (from the 7th to the 14th century). In more recent times, charters were also written on paper.

We are particularly interested in parchment, a writing surface of animal origin that was specially treated for this purpose. The writing was done with quill pens (swan or turkey feathers), or with wooden or metal styluses.

In terms of content, the description can be remarkably broad, as these charters convey a wealth of data through various forms and methods (abbreviations, initials, miniatures, etc.).

EXAMPLES OF INSCRIBED ARTEFACTS: CONTEXT, DOCUMENTATION, AND PUBLICATION

In the following, three concrete examples of archaeological artefacts with inscriptions or text from different time periods and regions will be examined, along with their documentation and presentation in scholarly publications.

Since access to internal cataloguing systems of specific archaeological projects is generally difficult, the examples discussed here are drawn from published literature. It can, however, be reasonably assumed — based on our own experience and involvement in archaeological projects[3] — that the catalogue-like information presented in these publications reflects, at least in broad terms, the way such artefacts are recorded in internal project archives.

Our **first example** concerns a so-called "docket"—heart-shaped clay bullae whose string channels and the impression of a knot inside them prove that they were once attached to other writing materials made from perishable media such as papyrus, summarising their content (Röllig, 2014, 2).

3 This applies in particular to the first example, as the author has been directly involved in the corresponding archaeological project.

The docket (D7) originates from the archaeological site of Tall Seh Hamad/Dur-Katlimmu/Magdalu in present-day Syria. It bears an inscription in Old Aramaic and dates to the 7th century BCE, the Neo-Assyrian period (fig. 1a). It was found in a palace-like structure, in room YV, within the stratigraphic unit EE YV-04-01 of the so-called "Red House" at Tall Seh Hamad, and is associated with the "Archive of Šulmu-šarri" (Röllig, 2014, 34–35, D7, 5; Rohde, 2013, 331–345).

This archive of Neo-Assyrian cuneiform tablets was originally stored on an upper floor of the building. From the extensive cuneiform records of the archive, we know that Šulmu-šarri was a "Confidant of the King" and was already active during the reign of the Assyrian king Esarhaddon (680–669 BCE) (Röllig, 2014, 5, 21; Rohde 2013, 342, 344). In docket D7, Šulmu-šarri appears as a creditor in a debt certificate concerning barley. The name of the man who borrowed the barley was Zabudu / Zabudî (Röllig, 2014, 21, 34).

Docket D7 from Tall Seh Hamad, presented here as our first example, was uncovered in 1998 during excavations in room YV of the "Red House." Its stratigraphic context was documented with precision. In total, 490 clay tablets or fragments, 68 dockets or fragments, two cuneiform clay bulla fragments, and one contract of attachment were recovered from this area, all dating to the 7th century BCE (Rohde 2013, 331, 344).

In Wolfgang Röllig's publication (2014, 34), docket D7 is depicted both photographically and in a scale drawing at 1:1 (see fig. 1a-b). The catalogue provides the following information:

- inventory number
- content (subject of the text)
- dimensions
- description
- find circumstances
- sealing (in this case, three stamp seal impressions schematically illustrated in the drawing)
- script
- dating
- text lines / translation
- commentary on the text lines

First example: a so-called "docket" from Tall Seh Hamad / Dur-Katlimmu / Magdalu (Syria) (Röllig, 2014, 34–35, D7)



Figure 1a: "Docket" D7 from Tall Seh Hamad / Dur-Katlimmu / Magdalu (Syria) (after Röllig, 2014, 34–35, D7)

D 7

Inventar Nrn.: SH 98/6949/0598 = DeZ 21048/02

Inhalt: Schuldurkunde, Gerste.

Maße: 72,5 x 50 x 27 mm.

Beschreibung: Vollständiges Docket. Brauner Ton, teilweise etwas rauchgeschwärzt. 2 Schnurlöcher am oberen Rand. Auf der Vorderseite 7 Zeilen Text, die Rückseite ist im mittleren Teil an der Oberfläche zerstört. Reste von 7 z.T. fragmentarischen Zeilen.

Fundumstände: Gefunden am 10.9.1998 in FS 6949/166 im Raum YV des Roten Hauses; EE YV-04-01 (Rohde 2013: 331–345).

Siegelung: Drei Stempelsiegelabdrücke (Fügert in Vorb.: Nr. 292) befinden sich im oberen Bereich der Vorderseite der Urkunde.

Schrift: Typ III, z.T. sehr tief eingeritzt, flüchtig geschrieben. Worttrennung durch tief eingegrabene Punkte, aber nicht konsequent.

Datierung: Monat Adar. Eponym Ša-Nabûšû (658).

Vs.	ḫ t m · z b d y ·	Siegel(urkunde) des Zabudî
	ʳwˀ ḫ ṣ y · b ʿ l y · š z ṣ ʿ r	und des Ḫuṣî, Bürger/Besitzer von ŠZṢʿR
3	š[ʿ r]ʳnˀ · 1 s 1 m s r /// ///	(über) Gerste, gehörig dem Šulmu-šarri, 6 (Homer)
	ʿ l y ʳhˀ m 1 p l g h n	zu ihren Lasten. Für die Hälfte davon (als Zins),
	ḫ ṣ d n /// ///	Schnitter 6
6	t b n /// ///	Stroh 6
	m q r ʳhˀ	Ballen.
Rs.	š h d n ·	Zeugen:
9	ḫʳṣˀʳḫ s s y	ḤṢḪ Šamšīya
	[ ]ʳbˀ ʿ r ·	
	[ ]x // [....	
12	[ ]w [.....	
	ʳyˀ r ḫ ʾ d r	Monat Adar
	[l ʾ] m š n b š w	Eponym Ša-Nabûšû

Figure 1b: Catalogue description for "docket" D7 from from Tall Seh Hamad / Dur-Katlimmu / Magdalu (Syria) (after Röllig, 2014, 34–35, D7)

Our **second example** concerns an Old Babylonian clay tablet from the so-called Sînkāšid Palace at the archaeological site of Uruk/Warka in present-day Iraq (Sanati-Müller, 1996, 368, 372 No. 213, Pl. 44, No. 213) (fig. 2a). Uruk-Warka is one of the most important archaeological sites in southern Iraq, with a long history of settlement and research (Crüsemann et al., 2013). As early as the 4th millennium BCE, it was a major urban centre and home to some of the earliest examples of writing on clay tablets.

The tablet, inscribed in Old Babylonian cuneiform and bearing a seal impression, dates to the first half of the 2nd millennium BCE and was excavated during the 19th excavation campaign in 1960–1961 in the Sînkāšid Palace. It is part of the tablet group W 20052, comprising 141 tablets and fragments housed partly in Heidelberg and partly in Baghdad. The contents of this group of tablets relate to the receipt of reed and wood; the translated text on our example reads: "Bring me 20 bundles of reeds for torches!" (Sanati-Müller, 1996, 372).

The tablet, along with other examples, was published in an article by Shirin Sanati-Müller in 1996 in volume 27 of the scholarly series *Baghdader Mitteilungen* of

the Orient Department of the German Archaeological Institute.

The publication includes a drawing of the front and back sides of the tablet with a depiction of the seal image, as well as photographs of all sides (cf. fig. 2a-b). The article provides the following information:

- provenance (described in the text)
- inventory number (in the catalogue of the publication)
- dimensions (in the catalogue of the publication)
- storage location (in the catalogue of the publication)
- dating
- text lines / translation
- commentary in footnotes

The clay tablets from the Sînkāšid Palace in Uruk-Warka published by Sanati-Müller are also included in the database of the *Cuneiform Digital Library Initiative CDLI* (https://cdli.earth/publications/1777458).

Second example: a clay tablet from the Sînkāšid Palace in Uruk/Warka (Iraq) (Sanati-Müller 1996, 368, 372 No. 213, Pl. 44, No. 213)



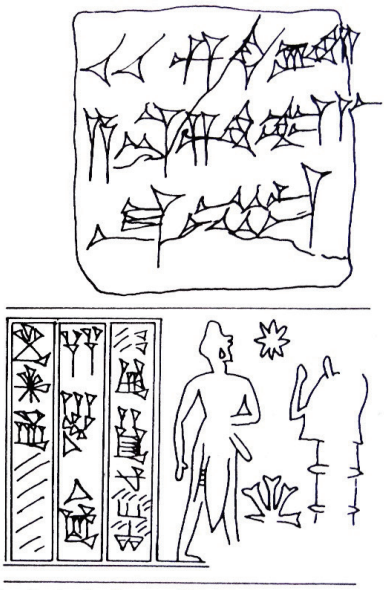
Figure 2a: Clay tablet with cuneiform script from from the Sînkāšid Palace in Uruk/Warka (Iraq) (after Sanati-Müller 1996, 368, 372 No. 213, Pl. 44, No. 213)

Nr. 213

Tafel: W 20052,89[30]
Datum: undatiert

Vs	1	20 gi-sa^{hi-a}
	2	*a-na* gi-izi-lá
	3	*šu-bi-lam*
K	4	Siegeldarstellung
Rs		Siegeldarstellung

Siegel[31]: *A/Sà-su-um* nu$^{?}$ x x
dumu *I-din-Eš$_4$-tár*
ìr ^{d}Nin-[ ]



Übersetzung: "$^{1-3}$Laß mir 20 Rohrbündel für Fackeln bringen!"

Figure 2b: Catalogue description for the clay tablet with cuneiform script from from the Sînkāšid Palace in Uruk/Warka (Iraq) (after Sanati-Müller 1996, 368, 372 No. 213, Pl. 44, No. 213)

Our **third example** is a fragmentarily preserved Roman military diploma discovered in Vičava in Ptuj – the Roman *Poetovio* (Lovenjak, 2019, 10–14, fig. 8) (fig. 3). It is a small piece of a bronze tablet bearing the remains of five lines of inscription, indicating that it is a fragment of a Roman military diploma.

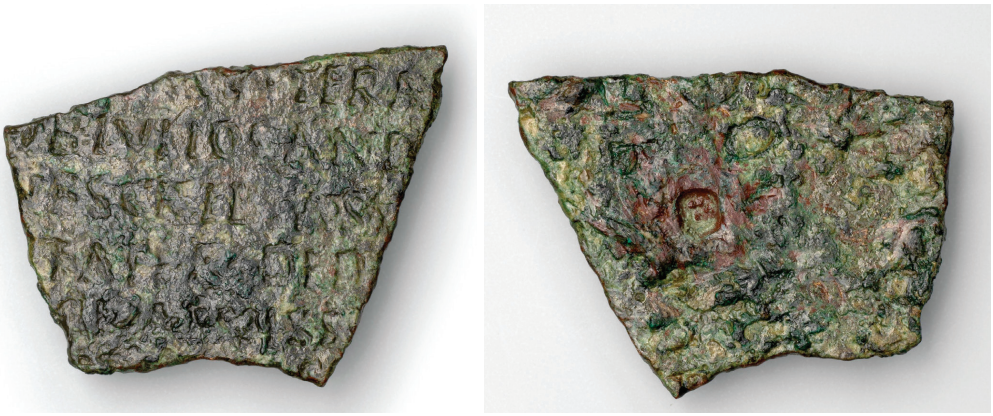
The fragment was uncovered in 2011 in SE 1259 (Stratigraphic Unit SE 1259) during rescue excavations carried out by the Centre for Preventive Archaeology of the Slovenian Institute for the Protection of Cultural Heritage (ZVKDS CPA) on the grounds of the former military barracks in Vičava. It dates to a period between the late 1st nd mid-2nd century CE. The area is located near the presumed forum of the Roman colony of *Poetovio.*

The find was the subject of a dedicated publication by Milan Lovenjak, published as part of the Small Scholarly Monographs series by the publishing house of the Faculty of Arts, University of Ljubljana. The publication includes a description of the find context, measurements and weight of the bronze fragment, two photo-

graphs, a transcription with partial reconstruction of the Latin text, and translations into Slovenian and German (Lovenjak, 2019, 13, 33).

The publication does not contain a catalogue-style listing of information, nor does it include a drawing of the object or data on its current location.

Third example: the fragment of a Roman military diploma, bronze, from Vičava in Ptuj (Slovenia) (Lovenjak, 2019, 10–14, fig. 8)



]M VETERAN[
]VB IVLIO CAND[
]NESTA MISSI[
]ITATEM DED[
5]C HABVISSE[

[Imp. Caes(ar) --- / equitibus et peditibus qui militant in alis --- et cohortibus --- quae / apellantur --- et --- -u]m vetera[na et --- et quae sunt in / Moesia Superiore s]ub Iulio Cand[ido stipendiis / emeritis dimissis ho]nesta miss[ione ipsis liberis / posterisque eorum civ]itatem ded[it et conubium / cum uxoribus quas tun]c habuisse[nt cum est / civitas iis data aut si qui caelibes essent cum / iis quas postea duxissent, dum taxat singuli / singulas. ------]

Figure 3: Foto and transcript of the inscription on the fragment of a Roman military diploma (bronze) from Vičava in Ptuj (Slovenia) (after Lovenjak, 2019, 10–14, fig. 8)

METHODS OF CATALOGUING ARCHIVAL DOCUMENTS

Examples of medieval charters illustrate prescribed standards for the creation of documents and their treatment in archival theory and practice. These are laid out in laws, by-laws, standards, and various guidelines — all developed out of practice or necessity. There exists an extensive body of literature on the most important archival documents, notably the charters from the Middle Ages onward.

These documents are preserved in almost all archives and even in some non-archival institutions such as museums, galleries, and private historical collections. Generally, they are found in archival guides for entire institutions or in specific guides that deal primarily with the cataloguing of charters.

For this article, I will examine several charters which, according to the definition that a charter itself constitutes an archival fond, will be treated accordingly. The general definition of a medieval charter refers to its frequent use of parchment as a substrate (other materials are not discussed here), which was already used during the Roman Empire. The historian Pliny the Elder mentions that parchment was named after Pergamon, where this method of preparing animal skin for writing was developed. The name "parchment" derives from the city of Pergamon. Archives pay great attention to old parchment charters and often take pride in possessing the oldest ones—be it those housed in the Apostolic Archive in the Vatican or in other repositories.

Charters are generally defined as "a written document, drawn up and authenticated in a prescribed form, concerning an act of a legal nature." They are distinguished and categorised by writing substrate, material, recording method, script, date of origin, size, preservation status, seals, notes, and citations.

Since I spent most of my archival career at the Regional Archives Maribor (PAM), I will begin with the oldest preserved charter held in this archive. It dates back to the year 1246 and is one of three charters from the 13th century kept by the Regional Archives Maribor.

FIRST EXAMPLE:

Processing of the oldest charter in the Regional Archives Maribor, which dates from 1246. The document is presented with a regest (summary), a citation of its archival location and origin, references to its publications, a complete transcription of the text, and annotations indicating where it has been mentioned.

SECOND EXAMPLE:

The oldest charter in the Historical Archives Ptuj dates from 1431[4] (fig. 4). It is described with a regest (summary), identification of the authenticator, the method of authentication (hanging seal), dimensions, legal status (original charter), material (parchment), language, script, and seven descriptors.



Figure 4: The oldest charter in the Historical Archives Ptuj, dating to the year 1431(after Historical Archive Ptuj)

Detailed description (Historical Archive Ptuj)

Signature: SI_ZAP/0051, Charter Collection, box 3, 1431 XI 13

Scope: SI_ZAP/0051_00003

Previous signatures: ZAP 51/4; former signature 2/4

Title: The Styrian Duke Frederick IV of Austria grants Andrej of Žusem a princely fief over estates in Močna near Hrastovec and on Kreuzberg

4 We thank Dejan Zadravec for sending us the image and description of the oldest charter in the Historical Archives Ptuj.

Date of issue: 13 November 1431 (on the day of Saint Brictius)

Place of issue: Innsbruck

Issuer: Styrian Duke Frederick IV of Austria **Recipient:** Andrej of Žusem

Regest: Duke Frederick IV of Austria grants Andrej of Žusem, as a princely fief, a manor (sitz), twelve farms, judicial rights and high justice in Močna near Hrastovec, which Andrej had purchased from Oswald von Eroltzheim. He also grants fourteen estates on Kreuzberg, located between Guštanj and Slovenj Gradec, which Andrej had acquired from Johann and Eitel von Eroltzheim, Konrad and Ulrich Dachawer, and the brothers Thomas and Ludwig von Rotenstein.

Authenticator: Styrian Duke Frederick IV of Austria

Authentication method: Hanging seal in a wax capsule

Dimensions (W × H): 32.5 × 16.5 cm

Legal status: Original charter

Material: Parchment

Language: German

Script: German cursive (Gothic cursiva / Kurrent)

Descriptors:

- Styrian Duke Frederick IV of Austria
- Andrej of Žusem
- Oswald and Heinrich von Eroltzheim
- Nikolaus von Eroltzheim
- Johann and Eitel von Eroltzheim
- Konrad and Ulrich Dachawer
- Thomas and Ludwig von Rotenstein
- Močna near Hrastovec
- Guštanj
- Slovenj Gradec

THIRD EXAMPLE:

The oldest charter in the Regional Archives Koper dates from 1187. It is described in the archival guide with information such as a regest (summary), legal status, place of origin, citation references, and archival code.

ANALYSIS AND OVERVIEW OF CATALOGUING ARCHAEOLOGICAL ARTEFACTS

Based on our three preceding examples – a Neo-Assyrian docket, an Old Babylonian clay tablet, and a Roman inscription (military diploma) – we can observe that archaeological artefacts with inscriptions are generally presented in a similar manner in scholarly publications. These publications often serve a dual function: they disseminate research findings and simultaneously reflect the internal cataloguing structure of the respective projects. In this context, we can regard the way the artefacts are described as a form of external catalogue, which in many cases mirrors the internal documentation.

In addition to drawings and photographs, the presentation typically includes the following elements (in varying order), which may appear in the main text, in the catalogue section, or spread across both:

- Record number – collection, institution
- Place of storage
- Provenance – country, archaeological site
- Dating – time period
- Object – type of object (e.g., stele, clay tablet, etc.)
- Material of the object
- Type of script
- Language
- Text
- Translation
- Publication

An interpretive analysis of the cultural-historical significance of the artefacts or texts is typically carried out by the authors within the framework of the initial publication. When such a first publication is comprehensive and detailed, it provides all available information, enabling other researchers to further analyse the artefacts from a range of perspectives.

Inclusion of these artefacts in databases such as the previously mentioned Cuneiform Digital Library Initiative (CDLI), the Epigraphic Database Heidelberg (https://edh.ub.uni-heidelberg.de/), or the Electronic Archive of Greek and Latin Epigraphy (EAGLE) also ensures broad public accessibility.

ANALYSIS AND OVERVIEW OF CATALOGUING ARCHIVAL DOCUMENTS

Based on the presented archival documents — i.e., medieval charters — we can analyze and describe how these charters are catalogued or published in various books, collections, exhibition catalogues, etc. The following cataloguing methods are common:

1. Image with short summary and location
2. Image with extended content, location, and catalogue reference
3. Image and structured cataloguing following agreed elements:
   a. Location
   b. Date
   c. Citation of publication
   d. Regest (summary of contents)
   e. Publications
   f. Microfilm/scan status
   g. Published regest
   h. Full transcription (requires expertise in language, scripts, abbreviations, historical topography)
   i. Writing substrate
   j. Dimensions
   k. Language
   l. Script
   m. Preservation state
   n. Seals
   o. Bibliography

Such a wide range of cataloguing forms is applied variably in practice. For example, Žnidarič Golec (2006, 3), presents a schematic approach to charter cataloguing including:

- Location (folder number)
- Date of origin
- Number of catalogued units
- Place and date
- Issuance of catalogue unit

- Regest
- Legal status = original = script = substrate = language = name of issuer = preservation = seal = notes
- Publications (literature)

Similarly, Čipič Rehar (2018, 12) presents a comparable schematic structure.

In the *Staatliche Archive Bayerns – Jahresbericht 2022* (Grau, 2022, 34), a papal charter from 1259 is presented with basic metadata, image, location (Landshut Archive), and collection number U1780. This format continues throughout the book.

4. The overall quality of cataloguing medieval charters is satisfactory. However, inconsistency and especially a lack of knowledge about charters—as the most valuable documents in some archives—can be surprising.

5. In some cases, charters are visually well-presented but only partially follow the prescribed archival principles.

CONCLUSION

This article has examined the methodological intersections and divergences in the treatment of inscribed objects within the disciplines of archival science and archaeology. Building on the premise that certain archaeological artefacts — especially those bearing inscriptions — can be regarded as archival documents according to the criteria of archival science, the study set out to compare the cataloguing and documentation approaches employed in both fields.

By analysing selected examples — namely, medieval charters as archival documents and archaeological artefacts such as a Neo-Assyrian docket, an Old Babylonian clay tablet, and a Roman military diploma — the study has highlighted how both disciplines engage with similar fundamental aspects: provenance, material composition, writing system, language, content, state of preservation, and contextual embedding. These examples illustrate that, despite differences in the origin and intended function of the objects, the principles of describing and cataloguing them show notable parallels. Both archaeology and archival science aim to record these items systematically in order to preserve and communicate their historical significance, often using comparable structural elements in their respective catalogue entries.

At the same time, the study underscores that the two disciplines are shaped by different professional traditions, legal frameworks, and practical challenges. While archival documents are often preserved within institutional settings and have been continuously transmitted, archaeological artefacts are usually recovered from disrupted contexts and require reconstruction through excavation and interpretation. These differences influence the methods and metadata standards applied in cataloguing.

Nonetheless, the research has shown that there is considerable potential for methodological exchange and interdisciplinary collaboration. In particular, the integration of digital tools — such as 3D documentation, database structuring, and artificial intelligence — holds promise for the future. While not the focus of this article, such technologies offer valuable opportunities for developing shared frameworks for the recording, analysis, and dissemination of inscribed historical sources.

In conclusion, the study argues for a closer dialogue between archaeology and archival science, not only in terms of technical and methodological innovation but also in developing a common language for the documentation and cataloguing of inscribed artefacts. Such collaboration would significantly enhance the accessibility, comparability, and interpretive potential of historical materials across disciplinary boundaries in an increasingly digitised research environment.

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Mirjam Jezeršek[1]

ARCHAEOLOGICAL SITE ARCHIVE – DEVELOPMENT OF ARCHAEOLOGICAL FIELD DOCUMENTATION

Abstract

Purpose: *The archaeological site archive consists of archaeological finds, samples, and all documentation accompanying archaeological research and excavation or post-excavation processing. This documentation must be permanently stored as a collection in the relevant museum institution. Part of the documentation is also the archaeological field documentation, which is the subject of this research. The purpose of this article is to provide a systematic overview of the development and current state of archaeological field documentation and to identify current issues. What was the development of archaeological field documentation and what types of documents did it contain, and does it contain?*

Methodology: *The research uses a compilation/description method based on already established research and publications in this field.*

Findings: *A review of literature has shown that Slovenian archaeologists only began to deal with archaeological field documentation in the late 1950s. Since the 1980s, the scope of fieldwork has increased significantly, and initiatives for the standardization of archaeological field documentation have begun to emerge. In 2013, the Rules on Archaeological Research were adopted, part of which is Annex 1: Professional Standards for Archaeological Field Research, which sets standards for archaeological field documentation. Archaeologists have been aware and are still conscious of the problem of non-standardization of archaeological field documentation, which is also evident in its archiving.*

Conclusion: *The standardization of archaeological field documentation is quite vague and does not contain precise and clear instructions, so the field remains rather undefined. Its status within the archive of an archaeological site in a museum remains unclear.*

Keywords: *Slovenian archaeology, archaeological site archive, archaeological field documentation, development, regulation*

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1 INTRODUCTION

Even a quick glance through the numerous archaeological collections in Slovenian museums tells us that Slovenia has a rich past. Archaeological finds in museums tell us about the past and about people. In order to fully understand the stories of our predecessors, which have woven themselves into the story of our present, it is not enough to study only archaeological finds, it is necessary to thoroughly understand the entire context of archaeological research, which also includes archaeological field documentation. Archaeological finds and archaeological field documentation together form the archaeological site archive. Article 2 of the Rules on Archaeological Research (PAR, 2013, 2022) defines the term 'archaeological site archive' as *"the result of an individual archaeological site together with all archaeological finds, samples, and complete documentation accompanying the archaeological research and excavation or post-excavation processing, and must be permanently stored as a collection in such a way as to allow access to experts and the wider public."*

In the past, archaeological field documentation was more of a secondary concern, with priority given to archaeological finds. As Novaković et al. (2007, i) note, Slovenian field archaeology did not have a comprehensive system of standards and similar regulations until 2007. The documentation created by archaeologists in their work was more or less left to their judgement as to what and how to document and archive.

This article presents archaeological field documentation, which is part of the archaeological site archive. The research focuses on reviewing the development of archaeological field documentation and the current state of affairs in this field. A review of the archives of archaeological sites in museums shows a gradual development from a simple excavation diary written in a notebook, to complex documentation defined for each method of archaeological research. What was archaeological field documentation like in the past? What types of documents did it contain? What is the current situation in this field? What types of documentation are defined by relevant legislation?

This article is part of a study of the state of archaeological sites archives in museums and institutions responsible for their preservation.

2 ARCHAEOLOGICAL FIELD DOCUMENTATION - IN THE PAST

The first attempts to standardize and define archaeological field documentation date back to the 1950s. R. Berce (1951) published an article entitled Technical Documentation in 'Zbornik zaštite spomenika kulture II'. As Medarić (2024, 50) points out, Berce was one of the first to write about aerial photography, and he also participated in the first attempts to use geophysics in archaeology.

In the 1960s, S. Pahič (1965-67) developed instructions for conducting topography, documenting sites, and preparing manuscripts. He sought to standardize the methodology and documentation for collecting and recording bibliographic and field data on archaeological sites and finds from the Palaeolithic to the Middle Ages. He defined two stages of work: fieldwork and post-fieldwork. The main form of documentation in fieldwork is the field diary. The final document in the post-fieldwork stage is the Record of the find, site, notification, and card index, photo archive, and site map. He precisely defines what data must be included in both documents. He suggested that this documentation is stored at the institution coordinating topographical research (the Archaeology Section of the Slovenian Academy of Sciences and Arts). Pahič's instructions were used in more or less unchanged form for more than two decades and, in fact, with certain modifications, can still be used today, according to Novaković et al. (2007, 42).

Novaković et al. (2007, ii) note that it was only from the 1970s onwards, when the scope of fieldwork increased significantly, that initiatives began to emerge to standardize certain aspects of archaeological practice and activities in the field of archaeological heritage protection. Petru (1974) writes in 'Varstvo spomenikov' that the monument protection law at the time did not contain clear provisions regarding the professional and scientific role of the excavation leader and his colleagues in field research, nor did it define the documentation that should be produced during fieldwork.

He focuses in particular on drawings, the main work log, and descriptive books of excavated architectural parts and small finds, for which he also provides instructions on what information they should contain. In 1977, Curk (1977) presented the Agreement on Protected Works on Archaeological Monuments, which he prepared together with stakeholders from the Institute of the Republic of Slovenia for

the Protection of Cultural Heritage. He also prepared the Conditions for Issuing Permits for Archaeological Excavations, which include excavation and documentation methods, but, as it states, there are no rules for the selection of methods and documentation. Only a diary and drawings are listed as field documentation.

As Nadbath et al. (2018, 7) note, the beginnings of the concept of preventive archaeology date back to the late 1980s, when Slovenian archaeology developed several conceptual and methodological innovations. Numerous non-invasive methods were developed, such as systematic surface field surveys, aerial photography, and geophysics. The first steps in this field were taken by the Department of Archaeology of the Faculty of Arts in Ljubljana and the Institute for the Protection of Cultural Heritage, organisation unit Novo mesto. In the subject area of field documentation, a step forward has been made in comparison with archaeological topography. Now, forms are used to document systematic surface inspections and related procedures. (Novaković et al., 2007)

Novaković et al. (2007, 52) note that the introduction of new excavation techniques, known as stratigraphic excavation, has completely changed the philosophy and system of documentation. The development of this took place mainly at the Department of Archaeology of the Faculty of Arts in Ljubljana. The main difference in the field of documentation was the elimination of the excavation diary as the main means of documentation. It was replaced by a system of documenting individual contexts based on various forms. The traditional diary is increasingly becoming a diary that monitors the progress of work and records the circumstances of the work. Another important innovation was computer support. (Novaković et al., 2007) As Stančič (1989, 13) points out, the need for computers in archaeology has grown due to the constant increase in data. Computer data processing has thus covered the field of archaeological field research, archaeological office work, and the documentation of finds in museums.

Aerial photography began to develop systematically only from the mid-1990s onwards. Two types of documentation are defined: vertical images, which are produced and stored by the state surveying service, and special, mostly oblique images, produced for the purposes of archaeological research. The only document is a report on the evaluation of aerial photographs, which was submitted to the clients and contained interpretative content. The report is not standardized

and contains information relevant to the client. The field of photograph archiving is also undefined and only involves temporary and makeshift forms of archiving. (Novaković et al., 2007)

The use of geophysical methods in archaeological fieldwork has only been established since the early 1990s. The only document required was a report on the work performed, together with an interpretation of the archaeologically relevant content, which is not standardized. (Novaković et al., 2007)

Grosman (1991, 25, 27) notes that every archaeological excavation is destructive, but it is also an experiment that cannot be repeated, and the unique record in the ground is permanently altered or destroyed. This makes it all the more important to document it properly, as it is ultimately the documentation that enables us to understand and interpret the previous, primary state.

The field of documentation has also been regulated more generally from a legislative perspective: Recommendation of International Principles for Archaeological Excavations, translation published in 'Varstvo spomenikov' XIII-XIV/1968-1969 (1970), Conditions for the issuance of permits for archaeological excavations, prepared by the Institute of the Republic of Slovenia for Monument Protection on the basis of previous experience in Slovenia ('Varstvo spomenikov', XXI/1977), Law on the Protection of Cultural Heritage (Official Gazette of the Republic of Slovenia, No. 7/99). The European Convention on the Protection of the Archaeological Heritage (Official Gazette 7/99 and 24/99) does not mention standardization or documentation methods. The Rules on the Procedure for Issuing Permits for Archaeological Research (Official Gazette of the Republic of Slovenia, No. 113/00) assume that standard excavation or site documentation already exists. However, these standards did not yet exist at the time the Rules were adopted. (Novaković et al., 2007)

3 ARCHAEOLOGICAL FIELD DOCUMENTATION – CURRENT STATE

In 2007, the Ministry of Culture commissioned a research study which, according to Novaković et al. (2007, i), was intended to provide a professional basis for discussion and, consequently, the introduction of standards excavation documentation, or for the creation of subordinate legislation that would adequately regulate this area. The study covered several segments, including the presentation of proposed stand-

ards, which the authors understand as *"part of a multi-layered system for ensuring the quality of fieldwork and post-fieldwork in archaeology"* (Novaković et al., 2007, 59). Thus, with the proposed standards, they defined the main definitions, purpose, basic principles of procedures, as well as quality criteria for work, instructions for managing procedures, and a manual for individual work techniques. However, Novaković et al. (2007, 59) point out that *"in the proposed standards for archaeological field, post-field, and documentation procedures, we deliberately do not want to provide details or prescribe precisely the methods, technologies, and organization of work."* Among other things, they believe that contractors and experts should be given room for manoeuvre in developing their fieldwork.

Each procedure consists of a definition, description, and documentation. The latter defines the mandatory documents of the procedure that are created before, during, and after the procedure is completed. Mandatory documents include the work plan, field notes, a work log, an archive of primary data (and finds), an archive of secondary data (and finds), a professional report on the work and results, and a project archive. The archive of primary data consists of a systematically organized collection of primary data, finds, and samples. In addition to finds and samples, it also includes all documents (lists, forms, descriptions, etc.) created during fieldwork and organized by source document groups. The secondary archive contains already valorised documents, finds, and samples. The project archive is a comprehensive and systematically organized collection of documentation consisting of the minutes of the handover of the archive to the institution responsible for its storage, archival material (work plan, field notes, work diary, archive of primary data and finds, archive of secondary data and finds, a professional report on the work and results), collections of finds and samples, and an inventory list of finds and samples. They also defined document templates and documentation templates. (Novaković et al., 2007) In 2018, the Institute for the Protection of Cultural Heritage of Slovenia developed Minimum Standards for the Implementation of preliminary archaeological research, which are in line with the Rules on Archaeological Research. (Nadbath et al., 2018). As Nadbath et al. (2018, 9) write, archaeological research standards make it possible to establish uniform, high-quality procedures for archaeological work in all phases of archaeological research. Comparability of results, which enables the synthesis and

integration of results and forms the basis for further methodological development and improvement of the quality and efficiency of work. Each method of preliminary archaeological research (14 methods are defined, e.g., historical analysis of space, geophysical research, intensive field survey of open areas, etc.), has a defined goal and definition, team composition, and selection and coverage. However, a review of these shows that no information is included about the documentation that should be created within the framework of each method. The chapter on minimum standards for post-field processing of data and materials presents the minimum standards for processing the acquired data, handling finds, and temporary storage. (Nadbath et al., 2018) Among other things that belong to the whole documentation are the *"written documents (e.g., forms, lists, field diaries, construction diaries), drawings, slides, and photographs (analogue, negatives, contact copies), research reports and publications, and digital documents (e.g., databases, photographs, video recordings, photo sketches, 3D models, digitized documents). When processing the captured data, it is necessary to ensure that the primary data is preserved in its original form and content, separate from the data interpreted and modified during processing."* (Nadbath et al., 2018, 41) In 2013, the Rules on Archaeological Research (PAR) were adopted.

Part of the PAR from 2013 is Annex 1, Professional Standards for Archaeological Field Research *"All archaeological research must be systematically planned and carried out and must be properly documented at all stages of the process,"* as stated in PAR in Annex 1 (2013). The subject of archaeological documentation includes: the organization and course of work, work or research procedures and their results, finds, samples, and other objects discovered during research, operational conclusions and interpretations, and all other data relevant to the research. The regulations of archaeological research set standards for the documentation of archaeological research. Archaeological documentation is a systematically organized collection of data on the organization, implementation, and results of archaeological research. All forms of archaeological documentation must be produced or archived in such a way as to ensure the greatest possible durability of the record. (PAR, Appendix 1, 2013)

Standards for archaeological documents include the work plan, field notes, work diary, and professional report on the research. (PAR, Appendix 1, 2013)

Appendix 5 (PAR, 2013) defines the composition of the archaeological site archive, which consists of documentation (work documentation, location documentation, work results documentation) and a systematically organized collection of finds and samples.

In 2022, the Rules on Amendments and Supplements to the Rules on Archaeological Research were adopted, which did not include any amendments or supplements to Annex 1.

4 METHODOLOGY

The first phase of the research into the state of archaeological site archives in Slovenian museums, which is presented in this article, focuses on the presentation of documentation, specifically one type of documentation, i.e. archaeological field documentation, as one of the three basic segments that make up an archaeological site archive. The archive of an archaeological site consists of archaeological finds, samples, and documentation. Knowledge of archaeological field documentation, as part of the overall documentation, is crucial for its correct placement in the archival context. The research focused on reviewing the literature in the field of research, with the aim of obtaining as comprehensive a picture as possible of the development of archaeological field documentation to date. The compilation/description method was used to obtain data, based on already known research and publications in this field. On the one hand, the compilation method summarizes the results of foreign scientific research. On the other hand, the description method provides a uniform description of facts and their relationships and connections without scientific interpretation or explanation. (Novak, 2021).

5 RESULTS

Archaeological field documentation represents one segment of the documentation that, together with archaeological finds and samples, forms the archive of an archaeological site.

The research conducted reveals what archaeological field documentation used to be like, what types of documents it contained, what the current situation is in this area, and what types of documentation are defined by relevant legislation.

A systematic review of literature shows that documentation was very modest in the past. The first attempts at standardization and definition date back to the 1950s and 1960s. Berce published the first handbook for archaeological excavations, in which he defined technical documentation in the archaeological field. Pahič, on the other hand, drew up instructions for carrying out topography and the associated documentation. He defines the field diary as the main documentation for field work, while the find report, site report, notification and card index, photo library and site map are the final documents of post-field processing.

Since the 1970s, numerous initiatives have been launched, mainly due to the increase in fieldwork, in order to standardise documentation. Archaeological field documentation is defined as drawings, the main work log, descriptive books of excavated architectural parts, and small finds.

In the 1980s and 1990s, numerous new non-invasive methods became established in field archaeology, e.g., aerial photography, geophysical methods, systematic field surface surveys, etc. These introduced various types of forms for documentation and non-standardized reports, e.g., reports on the evaluation of aerial photographs. The introduction of new stratigraphic excavation techniques has resulted in the abandonment of the excavation logbook, which had previously been the main means of documentation. It has been replaced by forms for documenting individual contexts. However, the logbook for monitoring the progress and circumstances of the work has been retained. Computer data processing is also becoming increasingly common in the field.

The foundations of today's archaeological field documentation were laid in 2007, when a research study on minimum standards for excavation documentation was prepared for the Ministry of Culture: an overview of the situation and proposals for standards. It defined the mandatory documents, namely the work plan, field notes, work diary, archive of primary data (and finds), archive of secondary data (and finds), professional report on the work and results, as well as the project archive. Document templates and documentation models were also defined. The study formed the basis for the preparation of the Rules on Archaeological Research, which were adopted in 2013. Part of the Rules is Annex 1, which discusses Professional Standards for Archaeological Field Research. The standards for ar-

chaeological documents are defined. Archaeological field documentation consists of field notes and a work log.

A review of the development of archaeological field documentation showed that archaeologists were aware of the problem of non-standardization of archaeological field documentation and that they attempted to regulate it by setting minimum professional standards with the adoption of the Rules on Archaeological Research. However, the standards are very general and do not contain precise and clear instructions, so that this issue remains rather unclear.

6 CONCLUSION

Sirovica (2016, 281) notes that archaeological field research results in large amounts of written, photographic, and graphic documentation containing key information about the site. Given that this is usually a destructive process, it is very important to ensure that it is stored properly, which is the responsibility of every institution in charge of its storage and archiving. Slovenian field archaeology has made great progress in the field of archaeological field documentation in recent decades. As research has shown, the beginnings in the 1950s and 1960s were modest in this field, with documentation of archaeological field research consisting of field diaries, records of finds and sites, photographs, drawings, and topographic maps. The content of the documentation was not defined; it was left to the individual, the excavator, and his perception of data recording. With the introduction of new non-invasive methods in the 1980s, the situation has changed radically to this day. Archaeologists have come to realize that it is necessary to define basic standards for archaeological field documentation, and not only that, but for all documentation created before, during, and after archaeological excavations, which is part of the archaeological site archive stored in museums. In 2013, the Rules on Archaeological Finds were adopted. Appendix 1, Professional Standards for Archaeological Field Research, defines the standards for archaeological documents. Mandatory archaeological field documentation consists of field notes and a work log.

A review of the development of archaeological field documentation showed that archaeologists were aware of the problem of non-standardization of archaeological field documentation and that they tried to regulate it by setting mini-

mum professional standards with the adoption of the Rules on Archaeological Research. However, the standards are very general and do not contain precise and clear instructions. Puhar et al. (2022, 197) note that *"the documentation of archaeological research is extremely well developed, supported by modern technology and knowledge, and follows the requirements of archaeological science and scientific research objectives."* However, on the other hand, experts note and urge *"that standards and regulations on museum documentation of archaeological material be developed immediately at the level of museum services..."* (Puhar et al. 2022, 197)

Archaeological field documentation is part of the archive of an archaeological site, the storage of which is the responsibility and obligation of museums. How museums manage archaeological site archives and what the current situation is like in museums presents another question, which might be the topic for another discussion.

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Matevž Košir[1]

SLOVENIA DOSSIER ARCHIVE: ARCHIVES BETWEEN EXPERTISE, POLITICS, AND SOCIAL MEMORY

Abstract

Purpose*: The goal is to explore how political factors shaped the way archives in Slovenia were organized and operated throughout the 20th century.*

Method: *The author employed a qualitative, historical-analytical method, drawing on archival records, historical literature, and archival theory to explore the intersection of politics and archival development in Slovenia.*

Results: *The history of archives in Slovenia is not only a story of institutions and documents but also a multifaceted narrative of power, memory, vision, and societal evolution.*

Conclusions: *The review of the history of Slovenian archives confirms the great importance of archival principles, particularly in connection with the Universal Declaration on Archives (2010). It highlights how adherence to these principles must guide the development, organization, and accessibility of archival institutions also in Slovenia, ensuring the preservation of documentary heritage and the promotion of transparency, accountability, and the right to information.*

Keywords: *Archives, Slovenia, socialism, political influence, 20th century*

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INTRODUCTION

Spanning from the early 20th century to the present, this article examines the shifting landscape of archival practices in Slovenia. It explores how archives were influenced by expertise and vision yet continuously shaped by political currents and contested forms of social memory. The Slovenian archival experience is emblematic of broader regional and global patterns, yet marked by unique national developments, particularly during pivotal periods such as World War II and the post-socialist transformation of the 1990s.

1. FOUNDATIONS OF ARCHIVAL INSTITUTIONS IN SLOVENIA

1.1 EARLY ARCHIVAL ENDEAVORS (1900–1940)

Archival consciousness in Slovenia emerged relatively late compared to Western Europe. Prior to World War I, archival activity was limited and largely informal. The Austro-Hungarian Empire maintained administrative archives, but their utility was confined to bureaucratic needs rather than historical preservation. Early Slovenian intellectuals and historians began advocating for systematic archival preservation during the interwar period, emphasizing the cultural and national significance of historical documents. However, these efforts remained marginal due to limited resources and political instability in the Kingdom of Yugoslavia. Archival material was collected by associations, individuals and institutions, such as the Land Museum of Carniola, founded in 1821. The museum building, built in 1887, also houses the historical archives. (Grabnar M., 1993) In 1926, the State Archives was established at the museum (then already renamed to Slovenian national museum). In 1932 the (Banovina) Archives in Maribor were founded as an archival institution with the task of preserving archival material in the region of Styria, Carinthia and Prekmurje. (Novak et al., 2003) The beginnings of the Ljubljana City Archive date back to 1898, while it started operating as an independent institution in 1951. Some city archives were established in connection with municipal libraries Piran (1877), Koper (1900).

After the dissolution of the Austro-Hungarian Empire, the question of archival succession after the former common state became topical. In 1923, the Kingdom of the SHS and the Republic of Austria signed an archival agreement. However,

expectations that Austria would soon cede to the new state the material relating to its territory held by the regional archives in Graz and Klagenfurt and by the State Archives in Vienna did not materialize.

2. ARCHIVES UNDER PRESSURE: WORLD WAR II.

During WWII, the territories of present-day Slovenia were subjected to occupation and administrative division. Parts of valuable archives archival material was also hidden, relocated, or others that contained sensitive information were destroyed to prevent misuse by occupying forces. German, Italian, and Hungarian authorities driven away seized or destroyed some archival materials. The largest transfer of archives was the removal of archives from Koper in 1944. They took away the written material, statutes, and books of the Koper commune from the 14th to the mid-19th century.

Considerable damage was done to the castle archives. The castle archives suffered significant damage, as castles were frequently targeted for destruction driven also by ideological motives.

3. INSTITUTIONALIZATION DURING SOCIALIST YUGOSLAVIA (1945–1991): IDEOLOGY, AND CONTROL

3.1. THE CENTRAL STATE ARCHIVES OF SLOVENIA.

The post-World War II socialist government saw archives as vital state tools. In 1945, The Central State Archive of the People's Republic of Slovenia was formally established. The professional legacy it inherited in 1945, together with the materials of the archives at the National Museum, was unfortunately modest, however it nevertheless marks the beginning of systematic archival development. The protection of archival materials was intended to be centralized for the entire country. But the victorious government did not see its identity in the Central State Archives. The archivists at the Central State Archives, however, were more or less left to their own devices in the battle to save the vast amounts of material which, in the face of profound social change, had lost its relevance for official, business and legal purposes, but which represented an invaluable cultural treasure trove. Not infrequently, archivists had to listen to criticism about why they did this, since nothing bound us to the capitalist past. (Žontar, 1995) The first step towards a more rational solution to the problem of limited space was the allocation of part

of the Gruber Palace to the archive in 1953. The staffing of the archive also grew very slowly, from two employees in 1945 to 36 in 1982. (Umek et al., 1982)

3.2. ARCHIVE OF THE INSTITUTE FOR THE HISTORY OF THE WORKERS' MOVEMENT

The new authorities placed special importance on studying the development of socialist forces, particularly the working class and the Communist Party of Yugoslavia. Already during the war, however, they had begun collecting partisan materials as well as materials from their opponents. In 1945 immediately after the end of the war, the new authorities prevented the transfer of Slovenian partisan material to Belgrade and ensured the establishment of an archive at the Institute of National Liberation in Ljubljana. It supported the actions in the search for the roots of the new society, which concerned the pre-war activities of the Communist Party and the workers' movement. Specialized archives, including those for labor movements and partisan activity, were established, reflecting the ideological priorities of the time. Slovenian culture was thus enriched in 1945 by a new independent state institution, and the rule that the Revolution creates archives, was once again confirmed. They supported actions in which, in search for the roots of the new society, materials related to the pre-war activities of the Communist Party and the workers' movement were removed from the judicial and administrative fonds of the time. In 1948, the Institute was transformed in the Museum of National Liberation of the People's Republic of Slovenia, and the partisan archives were also transferred there (Bevc, 1957, 154). In 1959, the Institute for the History of the Workers' Movement was established. This took over all the archival material from the Second World War that had previously been held in the Museum of National Liberation. Archives served both academic and political purposes, preserving state history and legitimizing socialist ideology.

3.3. SYSTEMATIC ORGANIZATION OF THE ARCHIVAL NETWORK

The general Yugoslav law on state archives was adopted in 1950. The law did not distinguish between state and private archival material. In addition to the state archives of the republics, it also recognized city archives. Besides the law, a decision was issued in Slovenia to establish the Archival Council of the People's Republic of Slovenia. After the establishment of the Archival Society of Slovenia

on April 27, 1954 (until then, the archival section had operated within the Historical Society for Slovenia), the two main priorities of this professional organization became the "independence" from related activities (such as museum and library work) and the establishment of an archival network in Slovenia. District archives were established, although they were named city archives, because the law did not allow for a different designation. In the following years, as part of the systematic organization of the archival network, archives began operating in Ptuj (1955), Piran (1955), Koper (1956), Celje (1957), and Nova Gorica (1972). They joined the three already operating regional archives in Ljubljana and Maribor, as well as the Central state archive. The Archival Society brought together Slovenian archival professionals and began to address archival issues on a professional basis, grounded in the General Archival Law of 1950. In cooperation with related disciplines, the Archival Society of Slovenia agreed, among other things, to define the boundaries of responsibility among archives, museums, and libraries. In 1964, a new general Yugoslav law on archival material was adopted, along with the Law on the Archival Council of Yugoslavia. Based on this, the Law on Archival Material and Archives of the Socialist Republic of Slovenia was enacted (in 1966). This law recognized the Archives of the Republic of Slovenia and the archives established by municipal assemblies for the area of one or more municipalities. In this way, it enabled the development of an archival network. Since 1973, the principle has been established that records are accessible 30 years after their creation, unless specific regulations stipulated otherwise. In the year 1964, the Law on the Archive of Yugoslavia was also adopted. It regulated the protection of the archival material of the federation. Outside the jurisdiction of all these archives remained the records of the bodies for internal affairs, national defense, foreign affairs,- the records of the Communist Party, the records of the workers' movement and the people's revolution with partisan records—as well as the records of certain other so-called socio-political organizations. For these records, which was kept by specialized archives, special restrictions on access applied.

3.4. HISTORICAL ARCHIVE OF THE CENTRAL COMMITTEE OF THE COMMUNIST PARTY OF SLOVENIA.

Not all of the material ended up in the state archives, especially not the material from the most important bodies, such as the Central Committee of the Commu-

nist Party of Slovenia, where decisions were actually made. Similarly, the material from the Ministry of Internal Affairs, within which the State Security Service also operated as a political police force, did not end up in the archives either. Archival legislation gave the Communist Party of Slovenia the opportunity to independently perform the service of protecting archival and registry material created within its field of work. In 1948, the Historical Department of the Central Committee of the Communist Party of Yugoslavia was established with the aim of collecting, organizing, and publishing documents and popularizing the history of the Communist Party of Yugoslavia, etc. Following this model, the Historical Department of the Central Committee of the Communist Party of Slovenia was established in 1949. The party had already been collecting its archival material prior to this. In 1957, the Executive Council of the People's Assembly of the LRS prepared a draft decision on the establishment and scope of work of the Historical Archives of the Central Committee of the ZKS (Drnovšek, 2001, 85). A similar development took place in Croatia and other socialist countries as well (Heđbeli, 2020, 31).

3.5. ARCHIVE OF THE MINISTRY OF INTERNAL AFFAIRS

The Ministry of Internal Affairs received its name in May 1945. It collected a considerable amount of material from the Second World War period on the activities of the ministry's predecessors. At the same time, OZNA seized a considerable amount of records from military and political opponents during the war and even more after the war. The material began to be systematically organized in 1949. A general Yugoslav law from 1950 stipulated that individual state institutions could have special archives. In 1952, the government of the Federal People's Republic of Yugoslavia issued Instructions on the collection, storage, and periodic disposal of archival material of the Ministry of Internal Affairs, as well as the method of processing archival material. The State Security Service periodically destroyed archival material, especially in 1966/67. However, a larger destruction took place at the end of 1989 and the beginning of 1990, when mainly material relating to internal issues, i.e., material related to opposition to the one-party system, was destroyed. This includes approximately four-fifths of all open files on persons under surveillance and files on SDV employees, collaborators, and sources, which were largely created between 1975 and 1990. Before the change of

the political system (1990), many special archives were destroyed, not just those of the state security service, also some documents were removed and destroyed in other special archives.

4. THE ARCHIVAL TURN: FROM SOCIALIST TO DEMOCRATIC SLOVENIA

4.1. ARCHIVES OF REPUBLIC OF SLOVENIA – NATIONAL ARCHIVES OF SLOVENIA

The collapse of Yugoslavia and the emergence of independent Slovenia in 1991 marked a watershed moment. The Archives of the Republic of Slovenia became an administrative organization within the Ministry of Culture, while the other regional archives became public institutions, with their funding taken over by the state. Social changes in the Republic of Slovenia led to the disappearance of the reasons that had justified the existence of separate archives. The archive at the Institute for the History of the Workers' Movement was incorporated into the national archive — the Archives of the Republic of Slovenia — in 1992. Prior to that, the Historical Archive of the Central Committee of the League of Communists of Slovenia (in 1990) and the Archive of the Republic Conference of the Socialist Alliance of Working People (also in 1990) had already been integrated into the Archives of the Republic of Slovenia. In 1998, the Archive of the Ministry of the Interior, along with the archive of the State Security Service, was also incorporated into the Archives of the Republic of Slovenia. From these archives, special departments were established, which are since 2014 united into a single division for the Protection of Archival Records from Special Archives within the Archives of the Republic of Slovenia. It is responsible for the archival records from the former special archives, which were merged with the central national archives between 1990 and 1998 following changes in legislation. The special archives were the Historical Archives of the Central Committee of the League of Communists of Slovenia, the former Archives of the Institute of the History of the Workers' Movement and the historical part of the Archives of the Ministry of the Interior. In addition to these the archival records of the former socio-political organizations (the Socialist Alliance of the Working People, trade unions, youth organizations and the national liberation organizations), which ceased to operate in 1990, with their records being transferred to the Slovenian national archives.

In the period up to the end of the 20th century, the Archives of the Republic of Slovenia also took over large quantities of records from the period between 1945 and 1990 (such as the records of the Republic Assembly, the Presidency of the Socialist Republic of Slovenia, etc.). The status and importance of the Archives of the Republic of Slovenia increased significantly with the establishment of the independent state of Slovenia and the takeover of special archives, etc. which became de facto National archives of Slovenia.

4.2. DEMOCRATIC REFORMS AND ARCHIVAL OPENNESS (1990S)

With political change, archival practice shifted toward transparency and accessibility. The new democratic framework emphasized freedom of information, resulting in the declassification of many previously restricted documents. A 1997 law significantly expanded public access to archival materials. The law reflects European archival standards, particularly regarding access, data privacy, and preservation mandates. Scholars, journalists, and civil society began exploring previously hidden histories, including political repression, collaboration, and resistance. The use of this archival material increased significantly with the adoption of the War Victims Act in 1995 and the Redress Act in 1996, etc. The inclusion of former special archives in the Archives of the Republic of Slovenia proved to be a good decision, as the archives were made available to both scientists and individuals, enabling them to exercise their right to information about themselves, and thus also enabling them to be rehabilitated or to exercise their right to have unjust court proceedings reopened, as provided for in the legislation adopted after Slovenia's independence. The use of other archival material related to the changes has also increased significantly, especially in connection with legislation (the Denationalization Act of 1991), etc.

4.3. CHALLENGES OF TRANSITIONAL JUSTICE AND MEMORY POLITICS, BALANCING ACCESS AND PRIVACY

A central tension in archival legislation is the balance between transparency and privacy. This has proven contentious, particularly regarding secret police files and political dossiers. While democratization enabled a more open archival environment, it also stirred controversies, as all tested the capacity and neutrality of archival institutions. The Second World War, post-war extrajudicial killings and

its aftermath in Slovenia also fueled political debates and ideological conflicts linked to the recent past. The archives became arenas where history and memory clashed, raising questions about what and how should be remembered and what could be forgotten. The amendment to the Archives Act, proposed by the government in 2011 and adopted by a government majority in the National Assembly, led to heated debates and a referendum. The referendum on archives decided on the approach to the "sensitive past," or the public's right to information or the damage that knowledge of secrets from the socialist era could cause to the country. The issue of access to the archives of the former state security service and issues related to the protection of personal data led to another referendum in 2014. In 2011, three and a half times more people participated in the archive referendum than in the 2014 referendum, which may indicate a gradual decline in the public's interest in issues related to recent history. Also, the constitutional court has judged on matters related to archival records three times. The first such judgement was passed in 2011, the second in 2014 and the third in 2017. All of them were created on the basis which recognizes public archival institutions, including the central state archives, merely as protectors of the cultural heritage whose main task is to put this heritage to use for the public. Sadly, the role of archives as protectors of human rights and freedoms was dangerously placed in the background. (Melik, Ustavno sodišče, p. 185) Archives indirectly participate in collective memory, but their fundamental function is much broader and deeper than simply preserving memories for public use. Public archives are irreplaceable institutions of the rule of law that preserve important documents of a social community as information, records and evidence. (Melik, Collective memory)

5. ARCHIVE SUCCESSION AFTER THE FORMER SOCIALIST FEDERAL REPUBLIC OF YUGOSLAVIA (SFRJ)

Since the mid-20th century, experts from the Archives of the Republic of Slovenia have been actively involved in negotiations, reviewing and returning archival material from the former Austria-Hungary based on the 1923 archival agreement between the Kingdom of Serbs, Croats and Slovenes and the Republic of Austria. These procedures were completed in the 1980s. Today, the Archives of the Republic of Slovenia are actively involved in negotiations on the archival succession of the former SFRJ. The agreement on the succession of the former SFRJ

was concluded in 2001 in Vienna between the five successor states of the SFRJ after ten years of negotiations. Annex D to the agreement defines the succession regarding archival material created during the period of the SFRJ and its predecessors, more precisely in the period from December 1, 1918, to June 30, 1991. In November 2001, the Slovenian government appointed an archives committee, which, according to an unwritten rule, is headed by the current director of the Archives of the Republic of Slovenia, while at the same time expert discussions began between the directors of the national archives of the successor states of the SFRJ. In 2003, experts from the Archives of the Republic of Slovenia began recording data in the Archives of Yugoslavia, the Military Archives of Serbia, the Diplomatic Archives, and other archives and institutions. The agreement finally entered into force in 2004, when it was ratified by all signatories. The recording of Slovenian experts in the Belgrade archives was particularly intensive in 2006. In the same year, the Archives of the Republic of Slovenia sent all successor states a list of material that was supposed to represent the common archival heritage, as well as a list of material that Slovenia requested in the original on the basis of Articles 2, 3, and 4 of Annex D. While Slovenian experts continue to record and review the material in the Belgrade archives, meetings of the directors of the archives of the successor states have been only occasional, despite efforts to the contrary. Recently, however, following the adoption of Recommendation No. 12. of the Permanent Joint Committee of High Representatives (Zagreb 2019 and Skopje 2023), attention has been focused on the possibilities of digitizing the common archival heritage of the successor states. Through the work of experts and discussions, it has become clear that archival succession will be a lengthy process.

6. FRAMEWORKS

6.1 EVOLUTION OF ARCHIVAL LAWS

Slovenia's archival legislation has evolved in tandem with political change. This was also influenced by Slovenia's entry into the European Union in 2014. The foundational Archival Act (1997, updated in 2006 and 2014) set out the responsibilities of archival institutions, the rights of users, and data protection mechanisms.

6.2. CHALLENGES

Recent challenges address digital preservation and in the future the use of AI in archival processes. Funding limitations, and technological change pose major challenges to archival sustainability. Preservation efforts must account for environmental risks, while ensuring the longevity of both physical and digital materials. Investments in infrastructure and training are critical to address these threats. In an era of digital misinformation, archives play a crucial role in verifying facts and preserving authenticity. Slovenian archives must navigate this terrain carefully, ensuring that they serve as trusted custodians of truth while remaining open to reinterpretation and scholarly critique. As memory institutions, archives must balance their custodial role with the imperative to foster public dialogue, historical awareness, and cultural resilience.

6.3. CONCLUSION

The Slovenian archival landscape reveals a rich tapestry of institutional growth, political contestation, professional development, and societal engagement. From hidden documents in wartime to the digital archives of today, Slovenian archival practices reflect broader tensions between memory and forgetting, openness and control, past and future. As Slovenia continues to navigate its post-socialist legacy and its place within the European framework, archives will remain vital arenas for historical inquiry, democratic accountability, and cultural continuity. The review of the history of Slovenian archives confirms the great importance of archival principles, particularly in connection with the Universal Declaration on Archives (2010). It highlights how adherence to these principles must guide the development, organization, and accessibility of archival institutions also in Slovenia, ensuring the preservation of documentary heritage and the promotion of transparency, accountability, and the right to information.

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CONVERSATIONS FOR REFLECTION: THE UNTOLD STORY OF MIGRATED ARCHIVES AND MISSED OPPORTUNITIES FOR SOUTHERN AFRICA AND ZIMBABWE - INCOMPLETE CATALOGUING IN THE UNITED KINGDOM DURING THE FIRST DECADE OF INDEPENDENCE, 1980-1990[2]

Abstract

Purpose: *Migrated archives continue to generate significant debate within archival discourse, particularly around themes of ownership, reparative justice, and the reconfiguration of the archives. Despite international efforts aimed at resolving issues surrounding these archives, meaningful progress has been limited. Zimbabwe stands at the centre of this ongoing debate within the Southern African context, where various opportunities to address the issue were missed. This article chronicles this narrative in an attempt to extend this intellectual debate in the field of Archival Science.*

Methods: *This study employs a qualitative methodology, drawing on data, collected through email, Zoom, and WhatsApp correspondences with current and former archivists directly involved with these contested archives. In addition, a comprehensive review of relevant archival scholarship was conducted.*

Results: *The findings highlight a complex interplay of missed opportunities, institutional inertia, and contested narratives that have hindered Zimbabwe's efforts to address the status of migrated archives. These insights underscore the broader challenges faced by postcolonial states in reclaiming and recontextualizing their archival heritage.*

Discussion: *By chronicling Zimbabwe's experience and placing it within the larger Southern African and international discourse, this article contributes to the ongoing scholarly conversation in Archival Science. It calls for renewed attention to practical and theoretical frameworks that can guide future action on migrated archives.*

Keywords: *Migrated archives, estrays, cataloguing, trend spotting, UNESCO*

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2 NB. This paper attempts to provoke discussion of archival issues (migrated archives) within the user community and is an original article not submitted to any publication.

1. INTRODUCTION

This instalment continues the recently rekindled international discourse on migrated archives. In 2024, Northumbria University (Newcastle), in collaboration with the Arts and Humanities Research Council, launched an academic research project titled 'Stolen' Archives. This initiative underscores the critical importance of this category of archives in understanding the histories of decolonization. According to Northumbria University, Newcastle (2024), this collaborative project—spearheaded by the university—will partner with British secondary schools to co-create teaching resources aimed at sparking new conversations among young people about decolonisation. This represents a particularly notable strand of engagement. The second engagement component is on mentorship with a focus on early career researchers in Nigeria in order to generate new perspectives and debates on this genre of archives. The University further notes that given the renewed focus on histories of empire and their legacies for the contemporary world, the interest in the British 'migrated' archives is now greater than ever (Northumbria University, Newcastle 2024; Hiribarren, 2023; MELA, 2023; Livsey, 2022; Banton, 2019; 2020; 2023a; Lowry, 2019; Kecskeméti, 1992). The 'stolen' archives research project aims to produce the first book-length study of the 'migrated' archives affair (Northumbria University, Newcastle, 2024; Livsey, 2024), which just serves to show the renewed interest into these archives and the noble attempts to build a corpus of literature sources on this category of archives. This forthcoming publication will be a worthy addition to the International Council on Archives (ICA) Expert Group on Shared Archival Heritage (EGSAH) bibliography.

Similarly, in the Caribbean region, Diptee (2023a;2023b; 2024) is working on a book project titled *Chained in Paradise which* looks at the consequences of the British Colonial Office (now Foreign Office) 2011 Operation legacy programme on the Caribbean region. This was a covert and elaborate British policy to destroy and hide documents just before each of its colonies gained independence (1950s-1970s). Diptee's (2023) work highlights that the term 'migrated archives' is a problematic euphemism and is a carefully chosen misnomer that masks the archival injustice. She has also proceeded to establish a digital archive (https://operationlegacyinthecaribbean.com/) that provides details on documents that were secretly taken from the Caribbean region under the British policy called

Operation Legacy (Operation Legacy in the Caribbean, s. d.), which serves to underscore the need for redress in this regard. In similar vein, Banton (2023b; Sato, 2017) chronicles and highlights the controversy surrounding the whereabouts and access challenges to the so-called 'Foreign and Commonwealth Office migrated archives' (FCO 141), consisting of about 20,000 colonial government records removed to London from British colonies at independence and transferred to the UK National Archives (TNA).

In their reviews, Banton (2023a; Banton, 2019), Ngoepe (2023) and Stoykovich (2023) all acknowledge the importance of the *Disputed Archival Heritage* book for re-igniting this debate on this genre of archives which serves to highlight the fact that the book is a worthy addition to our archival historiography. The group of archivists and scholars in Lowry's (2023) book continue to carry forward the migrated archives story as reported by Banton (2023a; Banton, 2019). As correctly noted by Stoykovich (2023, 1), migrated archives are one of the trickiest political challenges facing archives around the globe and this is a decades-long problem as Banton (2019) aptly notes.

The contested fundamentals when it comes to migrated archives revolve around issues of ownership, custody and access and authors writing on this genre of archives agree on this but differ on the modus operandi. As Ngoepe (2023) succinctly puts it, some advocate "carribeanization" of archives (Aarons, Bastian & Griffin, 2022) and (re)Africanization (Garaba, 2021; Ngoepe & Bhebe, 2024) with others insisting outright return (Mnjama 2002;2015;2019;2020; Mnjama & Lowry 2017; Chaterera-Zambuko, 2023) while Stora (2024), Desplat (2023), McCracken and Hogan-Stacey (2023) and Lowry's (2023) polyvocal work insist on reciprocal stewardship or joint shared heritage. The Expert Group on Shared Archival Heritage (EGSAH) was established by the International Council on Archives at its Congress in Seoul in September 2016 (Expert Group on Shared Archival Heritage, s. d.) and is a "work in progress". This Group has proceeded to publish the bibliography on Displaced Archives and Shared Archival Heritage which further underscores the importance of this genre of archives and the accompanying scholarly debates on these disputed archives. Regardless of what position one takes in this debate, new evidence cropping up with regards to this genre of archives with reference to Southern Africa, Zimbabwe in particular sug-

gests a catalogue of missed opportunities that could have given some insights on what was taken out of the country to the United Kingdom (UK) to assist with sharing the heritage as some would argue. At this juncture, some brief insight into how this article was crafted will suffice.

2. RESEARCH METHODOLOGY AND METHODS

This paper used a novel method for qualitative data collection on such topical issues in Archival Science namely that of email correspondence or what Kralik (2002, 147–148) refers to as data generation by correspondence. The communication was carried out from September 2023 to February 2025. This approach involves written communication between the researcher and each participant, as a conversational dialogue is constructed and developed with a community of experts; some directly involved in cataloguing the archives subject to this discussion then; some witnesses to the cataloguing project on these displaced archives and some ordinary archivists but wielding considerable clout in the archival profession. The building of rapport and trust is important for this type of qualitative research, as each participant, mostly former archivists at NAZ including two former directors, an Information Governance Advisor, an international archivist and the Head of International and External Affairs at The National Archives United Kingdom (TNAUK) were made to feel comfortable enough to openly share their views, knowledge and experiences with the researcher. WhatsApp calls and messages, Zoom meetings and email reminders also helped to improve the communication, collegiality and trust. These online correspondences were complemented with reviews of scholarly literature in order to have a rounded and complete picture of the issues at hand.

That said, the University College London provides the context and starting point to understand the argument and thrust of this paper.

3. UNIVERSITY COLLEGE LONDON (UCL): THE ARCHIVAL TRADITION BACKGROUND FOR ARCHIVISTS TRAINING IN DEVELOPING COUNTRIES AND THE DISPLACEMENT OF ARCHIVES AWARENESS CAMPAIGN

The UCL Department of Information Studies previously known as School of Library, Archives and Information Studies (SLAIS) is an international centre for knowledge creation and transfer in the fields of librarianship, archives and re-

cords management, publishing, information science and digital humanities (University College London, 2024a). The department's establishment traces its origins to Sir Hilary Jenkinson, Deputy Keeper of the Public Record Office, who was instrumental in instituting the new Diploma in Archives Studies at UCL in 1947, the first such programme in England (University College London, 2024b). UCL's umbilical connection with one of the greatest thinkers in the Archival Science discipline, Hilary Jenkinson served as a major attraction for the training of archival scholars not only from Europe but across the globe, thus giving the university a cosmopolitan outlook to this day.

Most African archival scholars trained in the 1980s to around 2012 passed through the corridors of this university. Archival and records management education and training were not yet established in the newly independent African states and so several countries offered scholarships and fellowships to a few individuals to build their capacity in either Western Europe or North America (Alexander & Pessek, 1988 as cited in Katuu, 2015). Notable African luminaries who were fortunate to be endowed with such bursaries and completed their archival education, then known as MA in Overseas Records and Archives Administration at UCL include Prof Nathan Mnjama (1994), the late Prof Justus Wamukoya (1996), Mathias Chida, Francis Maunze, former National Archives of Zimbabwe (NAZ) Director Samuel Njovana (1991–1996), Dr. Peter Sebina (2006), Dr. Segomotso Keakopa (2007), Dr. David Luyombya (2010), the late Emilia Madanha, the late Abel Matangira, Jacob Kufa and Jonathan Marimo to name a few. Apparently, as noted by Maboreke (2025a), NAZ had an initial arrangement with UCL where they used to send Archivists for a post graduate training in MA oversees Records Management and Archive Administration. Maboreke (2025a) further noted that:

> *"Basically, the programme offered by the University College London was a one year programme where officers would be granted special leave and would be bonded for four years. Basically, these officers would receive a grant from the Ford Foundation and the British Council. Jonathan Marimo received a Ford Foundation grant for staff development. M Chida and A Matangira were also beneficiaries of this funding. The institution would sponsor at least two officers for this kind of qualification at any one time, used as a process of building professional archivists in the National Archives.*"

In an email communication on 4 January 2024, the Archives and Records Manager at the Royal College of Psychiatrists, UK, Maunze (2024a) reflected as follows:

> "I remember in 1989 Abel Matangira and Jonathan Marimo extended their stay after completing their MA studies at UCL to catalogue our migrated archives that are in various British institutions. I don't think the exercise was that comprehensive as the funding was from a "western" organisation."

In another email communication on 20 September 2024, Mr Maunze noted that:

> "They (Jonathan and Abel) were not sent to the UK to document the migrated archives, instead they were asked (supposedly by NAZ administration) to extend their stay after their MA studies to do this exercise. Their studies were from September 1988 to June/July 1989, but when I got to the UK in September 1989 for my studies they were still in there and I presume doing that work. I think they left early 1990. I think you can verify this with Jonathan. Mrs Kamba was still the Director and the late Peter Claver Mazikana was the deputy. I don't know anything about the funding of this project (Maunze 2024b)."

In a Zoom meeting, Marimo (2024; Marimo & Maunze, 2024) confirmed that for this cataloguing project he was funded by the British Council while the late Abel Matangira was funded by Ford Foundation. However, Maboreke (2025a) confirmed that the funding was actually the other way around. Apparently, Marimo (2025) acknowledged that his memory now betrays him as this was a long time ago as he is not so sure as to who was the founder of this project as he notes:

> "But during my time at NAZ, there were four donors which were The JF Kapnek Trust, UNESCO, Ford Foundation and then the International Development Research Centre (IDRC) and I am sure it could have been UNESCO."

Chida (2024a) confirms this UNESCO funding as he noted that:

> "I seem to recall that UNESCO was funding this project not the British Council. There was a blanket funding by UNESCO for all migrated archives not only in Zimbabwe."

However, Stephen Witkowski, the Information Governance Advisor (Archives and Disclosure, Information Security, Governance and Risk Management) at the British Council reported as follows:

> *"I have done some research into Zimbabwe Migrated Archives and have not been able to find anything in our records. There may be some mentions in our papers that have been transferred to The National Archives in Kew (catalogue records here). If you can give me more information about this subject, I'll have another look through our remaining records."* (Witkowski 2024)

Coutelle (2024) at the UNESCO Archives also confirmed this and noted that:

> "Regarding your query, I inform you that a first search did not find any specific and conclusive elements regarding this program. However, I propose that you clarify the framework of our organization's participation in this program. That's why I encourage you firstly to begin your research using the below UNESCO research tools (provided)."

A number of the UNESCO tools were provided for the search that included UNESDOC (the main database for publications and published documents); the index of field mission reports; index of inactive correspondence files; AtoM (their archival description database); documents from UNESCO's main governing body, the General Conference and Executive Board reports which are helpful for finding activities and programmes; the UNESCO Archives multimedia website. A search done on 10 September 2024 using these UNESCO tools yielded nothing using the search terms migrated archives and the names of the archivists at the centre of this cataloguing project. This seems to suggest that NAZ reports should be the last hope for this information. However, to the contrary, search efforts done by the Deputy Director at NAZ with his team, did not retrieve any information pertaining to this project as Maboreke (2025b) noted as follows:

> "I have checked all their personal files for M Chida, J Marimo --- and A Matangira. Unfortunately, the information we are looking for is not in these files. These files only document the processes of obtaining leave and sponsorship for their studies by Ford Foundation."

In addition, there should be reports from both the British Council and Ford Foundation on this cataloguing project including the template (list) used to catalogue the items so as to give some glimpses into this project. However, an online search done of 7 February 2025 on the Ford Foundation and British Council websites (research reports and research insights respectively) yielded nothing to validate Stephen Witkowski's comments as earlier mentioned about the British Council inquiry on this matter.

That said, for archivists, cataloguing is an important aspect of documenting collections as it enables the archivist to oversee intellectual control over collections to facilitate storage and their subsequent retrieval. Cataloguing also enables the archivist to understand the material in custody, where it is located (on display, in custody, on loan) and what stories it tells (Museums Australia Victoria, 2021, 8). Critical in this archival task is also the need to establish the provenance and original order of the collections which defines our profession as custodians of documentary collections. Provenance can be used to identify the following (Meissner, 2019,17–19):

- Who created the records;
- How they were used;
- Where they were kept over time; and
- How they came to that particular archive or repository (an enclosure(s) of the agreement or letter transferring the records needs to be provided and if this is missing, a comment to this effect has to be appended).

This background information is required as this gives the collection its context, thereby authenticating the records as testimony or as a correct record of what transpired then. In terms of original order, it's the archivist's duty to give the collection that intellectual semblance with regard to how the creator used the records in question. In a nutshell, an archive catalogue serves as a finding aid or map to the collection in custody to help researchers find the information they are seeking. The rule of thumb when cataloguing the archives is for the archivist to be mindful of the media, format, materials and their condition. In other words, when cataloguing collections, one looks at the items to establish whether these are written documents, printed material, photographs, film and sound recordings, in hardcopy and/or digital formats. All this information should be captured in a register/database for reference purpose and to ensure compliance with international and inhouse standards for discoverability and cataloguing as a process takes time. With the cataloguing project done by the then youthful archivists from the National Archives of Zimbabwe (NAZ), we need to establish at what levels the cataloguing was done: collection, series, file or item levels. From Maunze's (2024) sentiments, this was not comprehensive (the timescale for the project was short) which seems to suggest this was at collection level focussing on:

- Who created or used the collection;

- When it was created (date ranges);
- Where it was held;
- How many items there are; and
- Topics/subjects covered.

Hebb (2021, 243) agrees with Maunze (2024) on this standard archival practice in as far as this applies to processing, by noting that catalogues and guides, where they exist, can never be comprehensive but arguably they however serve to provide some insight into the collections; details of which are missing. Two main kinds of cataloguing can be undertaken. First, introductory and/or multi-level cataloguing to international standards and/or specialised standards for specific record types and formats (for example, the International Standard Archive Description (General) (ISAD(G)) and secondly, a summary box list cataloguing which appears the most likely to have been employed for these migrated archives in view of the lack of time. Also, despite this cataloguing project being of a rudimentary nature as reported by Maunze (2024), it is a standard cataloguing requirement for archivists to promote the collection and make it accessible which was missed by the two exuberant youthful archivists from UCL representing NAZ. Around the late 1980s and early 1990s, the automation of archives was in its embryonic stages but at least making a physical copy of a list of the catalogued records would have sufficed and this should have been embodied in the policy statement of NAZ with regard to this genre of records. As noted by Chaterera-Zambuko (2022; Mnjama 2008), due to lack of this cataloguing, many African archivists do not know which British entities have custody of archives of the Rhodesian army and also those missing at large. Ngoepe (2023) correctly points that requesting repatriation of such archives is a tall order if archivists do not know which collections exist where. With cataloguing projects, arguably, the need for full documentation including the associated notes, box lists, reports and so on is mandatory and this defines our work as archivists from a transparency and accountability point of view. It remains a fact that the ability of historians to do their work is dependent not only on the assemblage of records, but also in the way in which archivists catalogue them (Moss & Thomas, 2021, 2).

In addition, the lack of professional awareness in terms of what was trending during their times by these two archivists and their respective government represents another missed opportunity, arguably though. The East and Southern Afri-

ca Regional Branch of the International Council on Archives (ESARBICA) at its conferences had by that time they got to UCL issued a number of resolutions on migrated archives starting from 1969, 1974 and 1982 (Mnjama, 2015) and these resolutions were reported in the ECARBICA Journal (1982) including conference reports. Mnjama (2007, 29) noted that in the late 1970s and early 1980s, the issue of archival claims (commonly known by many archivists as migrated archives) was very popular in ESARBICA conferences.

Trend spotting is one of the attributes of records professionals and involves scanning the environment to assess the changes taking place over the short and long term, analysing their implications for the organization and interpreting their impact on professional practice (Franks, 2013,169; Cox, 2011, 8). Thus, the issue of migrated archives should have been a hot topic trending around that time to warrant attention and actioning as these records were a treasured national heritage asset. Some policy directives at the highest levels of power on these archives would have helped as well to give direction and complement the work of the two youthful archivists from UCL. Apparently, Mazikana (1982) representing NAZ had delivered a paper on migrated archives at the seventh biennial ECARBICA conference in which he outlined the Zimbabwean Government's position on another category of migrated archives. In this case, this was in reference to the records of the former Federation of Rhodesia and Nyasaland, emphasizing the need to repatriate them to the National Archives of its former constituent countries, Malawi, Zambia and Zimbabwe. This initiative should have served as a catalyst to extent to the Rhodesian papers in the UK thereby maintaining the cultural patrimony reclamation momentum, as the two archivists were supposedly requested by NAZ to extend their stay in the UK but why this project was not taken to its final conclusion notwithstanding the underfunding issue defies logic. As aptly noted by Cary and Anderson (2023, vii):

> "When people find themselves without records and archives, memory, accountability and transparency become precarious. We all share a collective, vested interest in the future of archives and must be partners in the preservation of the evidence of our present."

That said, Hiribarren (2023; Carter, 2024) notes that the UCL has gone on to create a working group on these migrated archives, responsible among other things

for the creation of a Wikipedia page on the subject. Sexton (2022) notes that the UCL Migrated Archives Working Group was established in March 2022, born out of a desire to raise awareness on issues connected to the displacement of archives resulting from Britain's former colonial entanglements. The second broad aim of the series is about centring the perspectives of archivists and academics from the affected countries which just serves to highlight the UCL's concern on the plight of these archives and its continued association and engagement with the global archival community on this genre of archives. The issues, challenges and ethics of this archival displacement from their perspective underscores their importance and further reinforces the protracted debates on this burning issue in the field of archivistics. Arguably, by widening the remit of participants to include archival scholars, archivists, academics, historians and journalists, this commendable venture by UCL might help unlock the mysteries surrounding the whereabouts of these disputed archival collections.

Allied to the aforementioned, and as testimony to the growing interest in these migrated archives, Desplat (2023) informed the global archival community at the ICA conference on the developments at TNAUK with regards to the need to grant access to these records as part of shared memory. She highlighted that digitization of the migrated archives (FCO 141 records) had started in March 2023 and that in line with the International Council on Archives's Africa programme, they had completed the digitization of files relating to the following African countries:

- The Republic of Cameroon;
- The Kingdom of Eswatini (Swaziland);
- The Republic of the Gambia (Gambia);
- The Federal Republic of Nigeria;
- The Republic of Sierra Leone; and
- The Republic of Botswana (Bechuanaland).

In total and presently they had digitized 4,531 files (457,470 images / 13,824 GBs) of these records (Desplat, 2024).

Desplat (2024) further reported that files relating to Kenya are at the quality assessment (QA) stage, which basically means "we have sent sample images and are waiting to see whether they match the requirements/needs of our colleagues in Kenya" and files relating to Zanzibar are at production stage. Conspicuously

absent from the above list are those files on Zimbabwe and upon further inquiry, Desplat (2024) reported that the plan is to continue with the files relating to African countries, and that those relating to Zimbabwe will be processed in due course. Desplat (2024) also noted that different countries have different needs/capabilities, and that they are collaborating with colleagues in the countries concerned to determine how best the images can be delivered. TNAUK is also helping with the provision of the digitized copies to facilitate access to shared memory and Desplat (2023;2024) further noted that they had delivered the files related to Eswatini (Swaziland) on a hard drive to the High Commission of the Kingdom of Eswatini, who passed them on to the Archives. Such digital records repatriation is what Ngoepe and Dikotla (2025:12) advocate as they urge UK archivists to assist Commonwealth members in this regard.

Noble as this seems, the burning question remains that of trust as to whether these are the original records that have not undergone redaction. Banton (2023b) observed that upon opening of the FCO 141 records for public viewing in 2012/2013, many of the documents were redacted and that some former dependencies have questioned the benevolence of such a digitization initiative considering the ethical aspect and sincerity in so doing as some of the records are still embargoed to this day. Arguably, the proposed shared heritage through digitization of these migrated archives will not address the dispute. Commenting on a parallel topic in the museum world on stolen artefacts, Valley (2019) correctly posited that one cannot claim ownership of something that was stolen as this is a shared history based on violence and theft.

In the case of these migrated archives scattered in various repositories in the UK, a number of issues and questions come to the fore with regards to the earlier mentioned cataloguing project and these include:

Oversight, patriotism and ethical issues of the youthful archivists on such important historical information and historical awareness for Zimbabwe. The need to go beyond and over the call of duty to help preserve the records of the past cannot be re-emphasized. Prof Nathan Mnjama provides a shining example between 1980-1985 of what professionalism and patriotism entails in protecting a country's heritage as he on his own located and copied Kenyan archives from the UK between these years and the compensation claims later made by Kenyans

could not have been possible without him. That societal mirror he created and his campaign for social justice much as criticised by some scholars, Boles (2019) for instance has been revealing and impactful. Cary and Anderson (2023, viii) could not have put this better when they remarked that archival professionals imagine a future—whether in the next century or a week from now—and strive to support the use of records in that future, by people not yet known, for reasons not yet imagined. In other words, leadership, driven by critical thinking, means imagining new possibilities, seizing opportunities (McIntosh, 2024,154) for the betterment of the organization. Records have the power to reveal or conceal the truth as evidenced by these displaced archives. Millar (2019, 147) reiterated that recordkeepers work on behalf of society, today and for the future.

Prof Mnjama deserves to be knighted for such bravery, foresight and intellectual sense of judgement on this genre of archives as this is unapparelled in Kenyan and the rest of sub-Saharan African archival historiography[3]. In this instance, as a records professional, Prof. Mnjama opened these records, helping to reconcile and facilitate ethical/social justice solutions (Bastian, 2014, 119). As a visionary, he had such unbridled imagination with a mind to see things that did not yet exist but would provide solutions for the future. Arguably, this is a virtue that records professionals should strive to have or develop if there is lack thereof. The International Council on Archives (ICA) code of ethics (1996) is pointed on this and states that:

> "Archivists should protect the integrity of archival material and thus guarantee that it continues to be reliable evidence of the past.
>
> The primary duty of archivists is to maintain the integrity of the records in their care and custody. In the accomplishment of this duty they must have regard to the legitimate, but sometimes conflicting, rights and interests of employers, owners, data subjects and users, past, present and future. The objectivity and impartiality of archivists is the measure of their professionalism. They should resist pressure from any source to manipulate evidence so as to conceal or distort facts."

3 See also Khamis, 2000 with the Zanzibar experiences in the implementation of the Migrated Archives Project, UNESCO sponsored in 1997. Khamis (2000:65-66) recalls how he spent two months in the UK visiting archives, museums and libraries to locate Zanzibar records to retrieve them. He also extended this exercise in India in 1999 whereby he surveyed archives and museums to locate Zanzibar-related records and reproduced these for the benefit of the country. Khamis (2000, 65) acknowledges though that Zanzibar-related records in the UK were not illegally moved out of the country as has been the case in other countries.

Should we speculate that the late Director of the National Archives of Zimbabwe, Ivan Murambiwa could have paralleled Prof. Mnjama' s professionalism had he been given this opportunity to catalogue these migrated archives? The answer to this poser is in the affirmative considering that Ivan Murambiwa represented that rare breed of a public servant who was a patriot and defended Zimbabwe as he was well known for his unwavering allegiance to this securocratic state[4]. The former Director at NAZ, Ian Johnstone (2024) also confirmed that the late Murambiwa was working on papers that had been taken to the UK and he reported as follows:

> "Concerning migrated archives, I know Mr Murambiwa was working on this and had already succeeded in getting back from South Africa what Ian Smith removed from the Cabinet Office etc. when he left office. Mr Murambiwa was then working on getting back from the UK what Sir Roy Welensky removed from the PM's Office etc when he left office. I don't know how far he got with this, but I hope the present Director is pursuing it --- I'm still interested in the subject (migrated archives) and have done some research at the Bodleian Library in Oxford where there are quite a few Zimbabwe-related collections. I don't recall, offhand, that Abel and Jonah were cataloguing Zimbabwe-related material in the UK in 1989, but if there is indeed a file on what they achieved, I would hope the Director would make it available to you."

Efforts to get hold of the present Director at NAZ were not successful but the author has it on good authority that at one time she was in the UK for a month in 2022 ostensibly pursuing these Welensky papers that the late Murambiwa was after. Obtaining the file to determine what was catalogued, the scope of the cataloguing project, and other relevant details would significantly support NAZ in its efforts to

4 He wrote in different publications including *The Patriot*, under the pseudonym Munhamu Pekeshe in which he defended the motherland. Check also his article in *Comma Journal* (2012) titled; Archiving to the last archivist standing: the National Archives of Zimbabwe under sanctions. As NAZ Director, he oversaw the repatriation of the Rhodesian cabinet files and other state papers from South Africa in 2018. He was an evangelical fundamentalist wedded to the idea that the production of Zimbabwean history remained dominated and polluted by Rhodesian voices. The nagging question is what became of these records considering the infrastructural capacity challenges that NAZ is confronted with. Should we assume that from a preservation perspective that these are top priority and have their own special repository? One eminent historian and scrupulous researcher, the late Prof. Ngwabi Bhebe was a frequent visitor at the NAZ to consult these estrays since their return from South Africa in 2018. His manuscript to be possibly posthumously published from this valuable cache might help shade some further insight on Zimbabwe's liberation history struggle, which was missing in some of his earlier works co-edited with the late Prof. Terrence Ranger [See for instance *Soldiers in Zimbabwe's liberation war* (1996), *Society in Zimbabwe's Liberation War* (1996), *The ZAPU And ZANU guerrilla warfare and the Evangelical Lutheran Church In Zimbabwe* (1999) and *The Historical dimensions of democracy and human rights in Zimbabwe: pre-colonial and colonial legacies* (2001)].

reclaim this documentary heritage. That said, a former archivist at NAZ, Muchefa (2021, 37) in his tribute following Murambiwa's demise noted that he was a true historian and patriot and had that eagerness and zeal for the next generation to have access to documentary evidence for posterity's sake. His studies for a Master of Philosophy (Heritage Management) at the University of Cambridge (UK), was part of a Government programme in which the genesis of this nationalist revolutionary path can be traced. In an email communication on 9 January 2024, a former archivist at NAZ and now Principal Lecturer in Records and Archival Management at the Harare Polytechnic (Zimbabwe), Bishi (2024a) commented as follows:

> "The skills development programme was initiated post-independence to enhance the skills development for government professionals to occupy strategic positions in the government upon completion of their studies abroad. The programme catered for all ministries and government departments. Military, Accountants, Medical doctors, engineers, lecturers, social sciences etc."

Notwithstanding, the national archives of any country is a strategic asset as this institution serves as the custodian of a country's documentary heritage. Arguably, state archivists need to serve state interests as they are auditors of state recordkeeping and the ICA code of ethics (1996) notes that archivists must always act within the parameters of the policy laid down by his/her employer though they also retain the discretion to advise the employer based on their professional knowledge and expertise. Archivists in Jenkison's (1937) words therefore need to be guardians of the truth and continue the moral and physical defence of archives. Millar (2019, xvi) further underscores this by noting that as recordkeepers we should act as responsible stewards of evidence, defending its authenticity and integrity. With regard to these aforementioned attributes, the late Murambiwa ticks all the boxes.

That said, accessible evidence shows that this cataloguing was a Western funded initiative and not UNESCO[5] funded project as Chida (2024b) initially reported:

> "Jonathan and Abel could have been the last couple of NAZ employees to engage on the Migrated Archives project. All staff who were going for studies abroad were requested to stay on after their studies and engage on this project to cut costs of sending people over there from home. I remem-

5 UNESCO like the International Council on Archives has been at the forefront in its efforts for these migrated archives to be repatriated to the former colonies.

> ber this was a UNESCO funded project meant to facilitate the identification, copying and repatriation of migrated archives post-colonial rule."

Chida (2024b) confirmed that he does not have details of this cataloguing project but his comments hint to some sustained interest that the government had in these archives but how this waned defies logic and is tantamount to policy negligence and represents another missed opportunity. Due to this neglect, operational excellence could have been compromised with inconsistencies from the mentioned archivists' part of this Western funded project. The former Director at NAZ, Samuel Njovana (2024) noted that:

> "I am sure we would have opened a file for this project so it may be worth checking with the National Archives of Zimbabwe. Let us see if that can shed some light."

The policy directives alluded to earlier on in this piece could have been in place but with priorities lying elsewhere hence this unresolved situation we are in today with these migrated archives in the UK. The old adage that in the euphoria of independence African governments forgot their archives seems to hold forte. We need evidence of the cataloguing history of the collection to validate our claims as documentary proof of institutions and repositories in the UK holding custody of these archives.

In any case, why such rapacious interest now when we should be talking of decolonizing the archive/s? In his foreword to the *Disputed Archival Heritage* book, Bastian (2023a, xiii; Garaba, 2021; Ngoepe & Bhebhe, 2024) roadmaps the way forward as she remarks as follows:

> "As former colonial entities increasingly look towards decolonization, is it time to discard those colonial records in favour of building dynamic archives of the now, one that values both the culture and the cultural heritage of the formerly colonized rather than continuing to value records produced by the oppressor (Bastian, 2023a, xiii)."

Such views resonate with the 2063 Africa agenda as we need to repurpose or refigure our archive/s so that they speak to our people to promote accessibility and use – in other words, the archive/s must be brought to the people. By taking this stance, we will eradicate the elitism that has been an albatross around our archival institutions since time immemorial. Ngoepe (2019, 155; Bishi, 2024b)

correctly notes that having community-driven archives led by people in communities and not ruling party government bureaucrats spearheading acquisitions represents one solution to circumventing this elitism which reflects the views of those governing. In so doing, we break the patriotic tradition of breaking academic historiography with its attempts not only to complicate and question but to brainwash the masses (Ranger, 2004, 215).

Another dimension that needs to be seriously considered are the infrastructural challenges bedevilling most archival institutions in sub-Saharan Africa considering that we are struggling to keep what we are presently generating. Ngoepe and Dikotla (2025) advocate investment in archival infrastructure to address this which is symptomatic of a deeper malaise. However, the burning question is why this extra burden for us with obsession of the return of these exiled archives (Ngoepe, 2023; Garaba, 2021) as our former oppressors have shown recalcitrance in parting with these archives in question – the least they are prepared to do is to give us copies of digitized records and not the originals which raises authenticity issues about these digitized copies. Africa Agenda 2063 talks about cultural renaissance and charts the way forward for Africa and to the contrary politicizing the archive/s to such an extent will continue to be a double whammy with these disputed archives representing the interests of those who were previously in power and those presently in charge. The reality is that there is no political power without control of the archive, if not of memory (Derrida, 1996, 4) and politics is always ready at play in the archive (Harris, 2011, 113; Mbembe, 2002,19, 23). In consequence, archivists cannot escape by hiding behind a veil of innocence, neutrality and impartiality (Jimerson, 2009, 291; Wallace, 2017). In other words, archivists need to become active agents for change, in accordance with their existing professional principles, by taking active steps to counter the biases of previous archival practices (Jimerson, 2010, 13; Bastian, 2023b, 7–8; Cueller et al., 2023, 1–2).

4. CONCLUSION

With no pretence of exhausting issues pertaining to migrated archives, this article has attempted to offer a provocative counterpoint on the subject with its focus on Southern Africa, Zimbabwe in particular and this remains a hot potato in the archival discourse. The intellectual debate on this genre of archives is not a fore-

gone conclusion and this will continue into the foreseeable future as this article has laboured to demonstrate. There is a triad of proposed solutions that have been advanced to address the issue of migrated archives. This ranges from outright return of the disputed archives, shared heritage through digitization to the need to refigure the archive in the true spirit of decolonization. Arguably, it is this latter solution that appears attractive in line with Africa's agenda of 2063 as we should aim to build inclusive archives to avoid a repeat of this dark and painful chapter in our history. In addition, the lesson drawn from this wrangle is easy to decipher – the information and evidence contained in public records/state archives is so powerful; should never be suppressed, concealed or destroyed in the broad interests of transparency and accountability which our successive governments should learn from to promote good governance.

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ATLANTI+ GUIDELINES FOR AUTHORS

1. GENERAL INFORMATION ABOUT ATLANTI+

ATLANTI+ is an international scientific journal for modern archival theory and practice with an international editorial board, jointly published by the International Institute of Archival Science Trieste – Maribor (hereinafter MIAZ) and Alma Mater Europaea University, Slovenia.

The journal ATLANTI + is a peer-reviewed journal that publishes only original scientific articles and is published twice a year.

2. LANGUAGE

ATLANTI+ publishes scientific articles in English only.

3. FORMAT AND THE LENGTH OF CONTRIBUTIONS

The author should use Times New Roman font size 12.

The length of the article should not be shorter than 8 typed pages (or 15,000 characters with spaces) and should not exceed 16 typed pages (or 30,000 characters with spaces) including tables, figures, and a list of references.

4. STRUCTURE

The article should contain an abstract and keywords in English and in the author's native language (if the article is written in the author's native language).

Information about the author of the article should be provided before the title of the article. It shall include the first and the last of the author. Also needed are any academic and professional titles, the institution where the author works or is studying, the address and the email address at which the author can be reached by the editors and readers of the journal. The author should also include a short biography.

If there are several authors, they should come to an agreement and determine the order.

- **The title (subtitle)** should be short, concise, and informative, accurately defining the content of the article. Any subtitle must be separated from the title by a comma. The title and subtitle should use words that are suitable for indexing and searching.
- **The abstract** is a mandatory component of the article and must be compiled according to the IMRAD structure in accordance with ISO 214. The abstract should not exceed 250 words and should be written in the third person. The abstract should clearly define the purpose, design, methodology and approach, findings and results of the article, limitations as well as applicability and conclusions of the research. The author should specify up to 5 keywords or phrases that will be suitable for indexing and searching.

  Example:

  Abstract

  Purpose: Archival science and Museum science in museums are working in close cooperation. In the process of…

  Method/approach: The method used in our paper is case study, with which we demonstrated the usefulness of archival science in museums in practice…

  Results: Description of archival records has an important role in museum archives and storage rooms, since it allows employees to…

  Conclusions/findings: Museum and Archival science work closely together in museums and they need each other… Due to this, it is possible for the archivist and curator documentarist to look for common solutions in the field of record/documentation management and storage.

  Keywords: *archival science, museum science, museum, museum storage room.*
- **Main text** of the article (minimum 15.000, maximum 30.000 characters with spaces) is followed by the reference list and summary in English. It should be written in Times New Roman 12p. Paragraph levels should reflect the organization of the article. Chapters can be divided into subchapters. Numbering should follow SIST ISO 2145 and SIST ISO 690 standards (that is: 1, 1.1, 1.1.1 etc.).
- **Reference list** follows the main text and it must include all used sources cited in article. Authors must use APA style.
- **Summary** should contain at least 500 words written in English due to the international presence of Atlanti Journal.

5. FOOTNOTES

Footnotes are placed at the bottom of the page and numbered with ordinal numbers from the beginning to the end of the article. **Footnotes should provide additional text (author‘s comments) and not bibliographic references - those can only be referred to**. If the footnote refers to the whole sentence or paragraph, it is placed after the punctuation mark. If it refers to the last part of the sentence or only to the last word, it should be placed before the punctuation mark.

6. PICTORIAL AND GRAPHIC MATERIAL

The contribution may contain pictorial and graphic material and tables.

Each of them should be consecutively numbered from the beginning to the end of the text (Table 1, Table 2, Figure 1, Graph 1, Figure 2...).

Every table, spreadsheet, figure, graph must have a title. Titles of tables, charts and graphs should be written above it. Appropriate explanations (legend) should be added to the tables. The titles of the pictures should be written below the picture.

If the pictorial and graphic material is not the result of the author’s work, the source from which the data was obtained must be indicated. Images must be scanned in a suitable resolution (at least 300 dpi) in .jpg, .tiff or .png format. **These sources should also be listed in the bibliography.**

7. CITATION OF AUTHORS AND REFERENCES

Authors should use the APA Style and in-text citation for citing sources. More detailed examples are shown in the table in Annex 1

KEY CITATION GUIDELINES:

- Only publicly available sources should be cited.
- When citing in the text, the **last name of the author(s), the year of the source and the page number(s)**, separated by a comma, must be given
  (Carruci, 2006); Semlič Rajh (2018, 43) thinks...…
- Sources, cited as the example, shall be cited as below.
  (see Klasinc, 1999 or Ratti, 2001), (for more, see Johnsonn, 2006)
- To cite secondary sources, the author(s) and the year of the primary source are

cited, followed by the author(s) and year of the secondary sources.

(Line, 1979, as cited in Mihalič, 1984)

- When the source has no author or editor, the title of the source is given, followed by the year of publication.
(*Merriam-Webster's*, 2003).
- Verbatim citations should be marked with quotation marks (“ “) and page numbers, and the text should be in italics.
- In this case, this newly created material also becomes heritage, because *“similarly to analogue cultural heritage, it goes through the processes of creation, evaluation, collection, documentation, communication and permanent preservation”* (Šojat-Bikić, 2013, 151).

KEY GUIDELINES FOR CITING SOURCES IN THE “REFERENCES” CHAPTER

- The **Reference** chapter should only contain sources that are used and cited in the text. All information should be provided in the original language, unless provided in Cyrillic. In this case, the author should indicate the source in parentheses, also in Latin).
- If the sources used are from the same author and published in the same year, they are separated by the letters a, b, c... They should also be cited in the text in this way.

(Novak, 2002a, 2002b), Novak (2002a, 2002b) presents . . .

- If the source used is still in print or has not yet been published, this is indicated where the year is usually given.
- For citation of sources accessible online, the above instructions shall used sensibly. However, it is necessary to add “Retrieved at” and an online link to the source or a doi link, followed by the date of access in brackets (e.g. (accessed on 15/05/2022).

8. SUBMISSION AND COPYRIGHT

The author can submit contributions that have not yet been published in another publication or are not in the process of being published in other publications. The author is fully responsible for the content of the article and the proofreading of the text. The contribution for publication should be compiled in accordance with the journal's instructions and scientific guidelines regarding the content, style, and structure of the article.

The author should send a grammatically and linguistically suitable text to the editors. **Texts that do not comply with the journal's instructions will be returned to the author by the editors and will require adjustments and corrections.**

The editor and technical editor review the appropriateness of citations and references in accordance with the journal's guidelines and decide whether:

a) the article can be sent to the review process,

b) return the article to the author and request appropriate modifications and only then forward the article for peer review.

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The author submits the article together with a signed permission to publish the article in electronic form to the email address of the journal's editorial office (if there are several authors, the permission must be signed by all authors).

9. PEER REVIEW PROCEDURE:

The editorial board reviews all received submissions. If the articles are not prepared in accordance with the instructions and standards of the journal, the editorial board requests corrections and adjustments from the author. If the article is neither scientific nor professional, the editorial committee decides on publishing it or not.

Scientific and professional articles that have been written in accordance with the instructions and guidelines of the journal and the editors are included in the anonymous (double-blind) peer review process. Reviewers are selected by the editorial board.

The following components are looked at by the editorial board:

- **content**: general interest of the content, innovation...,
- **methodology**: adequacy of used methods, sampling, confirmation/rejection of hypotheses and assumptions...,
- **the structure and form of the contribution**,
- **consistent citation and citing of sources, notes, pictorial and graphic sources**...

According to the reviewer, the author either corrects or adjusts the article.

Anonymity of authors and reviewers during the review process is guaranteed. Articles will only be published if they have received a positive evaluation during the review process.

After the review, the reviewer determines the typology of the article and decides whether the article:

a) May be published as submitted to the editors,

b) Can be published after the author has made minor required corrections,

c) Needs to be corrected and sent to the editorial board for another review,

d) Unsuitable for publication.

10. TYPOLOGY

Based on the reviewer's opinion, the editorial board determines the typology of the article. The typology for managing bibliographies within COBISS is as follows:

1.01 Original scientific article

1.02 Review article

1.03 Short scientific article

1.04 Professional article

11. FINAL TEXT AND PUBLISHING PREPARATION

The author must send the final text via e-mail (in MS Word format) within the deadline set by the editors to the editors' e-mail address.

The editorial board prepares the text for publication and reserves the right to change the format of contributions and major design changes in agreement with the author.

The reviewers consider the following:

- Content: general interest, innovation …,
- Methodology: suitability of used methods, sampling, hypothesis confirmation or rejection.
- Paper structure,
- Citations and references: citing consistency, references etc...

According to the reviewer's opinion the author corrects or supplements the article.

The anonymity of authors and peer reviewers during the review procedure is guaranteed. Articles are published only if they receive a positive review.

EXAMPLES OF CITING SOURCES

The table contains examples of citing sources for easier illustration of citing each type of source in different formats for a contribution in Atlanti+ journals:

- The first column indicates the source type.
  The list of used sources must be placed at the end of the article; the sources must be listed as shown in the second column (titles books/magazines/documents are written in italics - see the individual case)
- Explanations and more important highlights are written in the third column.
- The fourth column shows how each type of source should be cited within the text (e.g. Melik (1995, 15) notes that...; Stoler et al. (2020) claims..., (Vilfan and Žontar, 1973, 154) etc.)

BOOK Surname, first name. (year). Book Title: Subtitle. Place of publishing: Publishing house. Surname, first name. (ed.). (year). Book Title: Subtitle. Place of publishing: Publishing house.		Write the title (and subtitle) of the book in italics. In the case of two or more authors, we add the word „and“ before the last author.	
TYPE OF SOURCE	CITATION IN THE LIST OF SORUCES	EXPLANATION	CITATION IN THE TEXT
Book One author	Melik, J. (2011). Osnove prava in pravne države za arhiviste. Ljubljana: Arhiv Republike Slovenije.		(Melik, 1995);
Book Two authors	Vilfan, S. and Žontar, J. (1973). Arhivistika. Arhivski priročniki: zvezek 2. Ljubljana: Arhivsko društvo Slovenije.		(Vilfan and Žontar, 1973)
Book Three or more authors	Stoler, A. L., Gourgouris, S. and Lezra, J. (2020). Thinking with Balibar: A Lexicon of Conceptual Practice. New York: Fordham University Press.	**Three authors:** For the first citation in the text, write down the surnames of all authors, for all subsequent citations only the first author and add “et al.” (the international abbreviation for “and others”). **More than three authors:** When citing a source, write down all authors in the list of sources used. When citing in the text, write down the last name of the first author and add „et al.“.	(Stoler et al., 2020)
Book With editor(s)	Žontar, J. (ed.). (2000). Pravo, zgodovina, arhivi. 1. Prispevki za zgodovino pravosodja. Ljubljana: Arhiv Republike Slovenije.	In the list of sources, instead of the authors, we indicate the editor(s) and add an explanation in parentheses that they are the editors: „(ed.)“. When citing in-text tags, with the remark editors, “ed.” is not added.	(Žontar, 2000)
Book Without author/ editor	Publication manual of the American Psychological Association (6th ed.). (2010). Washington: American Psychological Association.	In the text, we cite the first few words of the citation in the list of sources used (usually the beginning of the title or the entire title). When quoting in the text, write the title or the beginning of the title in quotation marks.	(Publication manual, 2010
Annual report of an organisation	Vrhovno sodišče Republike Slovenije. (2020). Otvoritev sodnega leta 2020. Ljubljana: Vrhovno sodišče RS.	If it is information about an organization or its work, the author can be just the organization itself.	(Vrhovno sodišče RS, 2020)
Dictionary Large number of authors/editors	Slovar slovenskega knjižnega jezika [SSKJ]. (1994). Ljubljana: DZS.	In the text, we cite the first few words of the citation in the list of sources (usually the beginning of the title or the entire title)	(SSKJ, 1994)
Thesis	Kosi, M. (2016). Izhodišča za invalidom uporabno digitalizirano arhivsko gradivo (Master thesis). Ljubljana: Fakulteta za varnostne vede.		(Kosi, 2016)

ELECTRONIC BOOK Surname, first name. (year). E-Book Title: Subtitle. Place of publishing: Publishing house. Retrieved at http://xxxxxxxxxxx (accessed date of access). Surname, first name. (year). E-Book Title: Subtitle. Place of publishing: Publishing house. doi:xxxxxx/xxxxxxxxxxx (accessed date of access).		We cite them in the same way as printed books, except that we add a web link or a doi mark after the bibliographic data. The web link and the doi (Digital Object Identifier) must be written in bold, not underlined. Examples of citing sources for different numbers of authors are explained in the examples for books.	
TYPE OF SOURCE	CITATION IN THE LIST OF SORUCES	EXPLANATION	CITATION IN THE TEXT
E-book	Stichelbaut, B. (2015). Forgotten and lost? : 1914-1918 : a guide to the archives : archival research of aerial photographic collections of the western front. Ljubljana: Založba ZRC. Retrieved at http://www.dlib.si/details/URN:NBN:SI:doc-HO-1BAQNR (accessed on15. 2. 2022).	For bibliographic data and phrase „retrieved at“ we add a web link.	(Stichelbaut, 2015)
E-book with DOI	Stalla-Stichelbaut, B. (2015). Forgotten and lost? 1914-1918 : a guide to the archives : archival research of aerial photographic collections of the western front. Ljubljana: Založba ZRC. Doi: 10.3986/9789612548315 (accessed on 7. 4. 2022).	After the bibliographic data, we add “doi:” and the appropriate label..	(Stichelbaut, 2015)
Annual report of an organisation in e-form	Vrhovno sodišče Republike Slovenije [VS RS]. (2019). Letno poročilo o poslovanju sodišča za leto 2019. Ljubljana: Vrhovno sodišče Republike Slovenije Retrieved at http://www.sodisce.si/mma_bin.php?static_id=2020042009043956 (accessed on 27. 2. 2020).	If it is information about an organization or its work, the author can be the organization itself. If the name of the organization is long and the source is cited several times in the text, an abbreviation can be introduced in the first citation, which is then used in all subsequent citations. The abbreviation must also be given next to the name of the organization in the list of used resources.	(VS RS, 2019)
E-dictionary or encyclopaedia	Fran: Slovarji Inštituta za slovenski jezik Frana Ramovša ZRC SAZU. (2016). Ljubljana: Inštitut za slovenski jezik Frana Ramovša ZRC SAZU. Retrieved at http://www.fran.si/ (accessed on 2. 2. 2022).	When quoting in the text, write the title or the beginning of the title in in quotation marks.	(Fran, 2016)
E-version of a thesis	Pfajfar, V. (2018). Digitalizacija arhivskega gradiva. Metodologija in standardizacija postopkov (Magistrsko delo). Logatec: Alma Mater ECM. Retrieved at: https://d.cobiss.net/repository/si/files/2013301/106382/Pfajfar_Vanja_md_2018.pdf/terms (accessed on 6. 2. 2023).		(Pfajfar, 2018)

BOOK CHAPTER Surname, first name. (year). Chapter Title: Subtitle. In Initial of editor's name. Surname of the editor (ed.), Title of the book: Subtitle (pgs. first page of chapter - last page of chapter). Place of publishing: Publishing house.		In the list of sources used, the authors, year and title of the chapter are listed first. Then, after the word "In" (it stands for the introductory phrase, to indicate where the chapter is published), we provide information about the book and the pages on which the chapter is published. Write the title (and subtitle) of the book in italics. Examples of citing and citing sources for different numbers of authors are explained in the examples for books.	
TYPE OF SOURCE	CITATION IN THE LIST OF SORUCES	EXPLANATION	CITATION IN THE TEXT
Chapter in a book With editor(s)	Melik, J. (2000). Organizacija rednih sodišč v prvi Jugoslaviji. In J. Žontar (ed.), Pravo-zgodovina—arhivi: 1. Prispevki za zgodovino pravosodja (pgs. 173–183). Ljubljana: Arhiv Republike Slovenije.		(Melik, 2000)
Article in conference proceedings With editor(s)	Semlič Rajh, Z. (2018). Standard ISO 15489-1:2016 in vrednotenje : kaj prinaša novi standard. V A. Škoro Babič (ur.), 6. Simpozij Arhivi v službi človeka - človek v službi arhivov, (pgs. 43–51). Maribor: Alma Mater ECM.		(Semlič Rajh, 2018)

ARTICLE IN ELECTRONIC PROCEEDINGS Surname, first name. (Year). Article title: Subtitle. In Initial of editor's name. Last name of the editor (ed.), Title of the e-collection: Subtitle (pgs. First page of the chapter - last page of the chapter). Place of publishing: Publishing house. Retrieved at http://xxxxxxxxxxxx (accessed on date of access).		Write the title (and subtitle) of the collection in italics. We cite them in the same way as printed chapters, except that we add a web link or a doi tag after the bibliographic data. The web link and the doi (Digital Object Identifier) must be written in bold, not underlined. Examples of citing sources for different numbers of authors are explained in the examples for books.	
TYPE OF SOURCE	CITATION IN THE LIST OF SORUCES	EXPLANATION	CITATION IN THE TEXT
Contribution in the e-proceedings of the conference with the editor(s); pages of the article in the e-proceedings are indicated	Jelenc, Bogomil. 2017. Elektronsko pisarniško poslovanje, prvi korak k elektronskemu arhiviranju. In N. Gostenčnik (ed.), Tehnični in vsebinski problemi klasičnega in elektronskega arhiviranja. Digitalno in digitalizirano. Arhivsko gradivo včeraj, danes in jutri : zbornik mednarodne konference, Radenci, 5.-7. april 2017, Radenci, April 5-7, 2017 (pgs. 305-316). Maribor: Pokrajinski arhiv Maribor. Retrieved at http://www.pokarh-mb.si/uploaded/datoteke/Radenci/radenci_2017/22_jelenc_2017.pdf (accessed on 15. 9. 2022).	For bibliographic data and phrase "Retrieved at" we add a web link. The link must be written in black font and not underlined. If the pages in e-proceedings are numbered, we list those pages, too.	(Jelenc, 2017)
Contribution in the e-proceedings of the conference no editor; contribution pages in the e- are not listed in the proceedings	Huth, G. (2016). Appraising Digital Records. In Appraisal and Acquisition Strategies: Proceedings of the 10th Inter- national Joint Conference on Knowledge Discovery, Knowledge Engineering and Knowledge Management. London: SCITEPRESS. Retrieved at https://dokumen.pub/appraisal-and-acquisition-strategies-9780931828003-0931828007.html (accessed on 24. 10. 2022)	The editor is not listed, so this information is not included in the citation. The pages are not listed in the e-proceedings, so this information is not available.	(Huth, 2016)

ARTICLE IN A PRINTED MAGAZINE/JOURNAL/ DAILY NEWSPAPER Surname, first name. (year/date). Article Title: Subtitles. Title of magazine/journal, year (issue), first page of the article - last page of the article.		In the list of sources, the authors, year and title of the article are listed first. Then we state the title of the magazine/journal, the year, the number and the pages, where the article is published. Write down the title and year of the magazine/journal in italics. For the titles of magazines/ journal in English, we capitalize all words except prepositions and conjunctions. This does not apply to titles of books and articles in English. Examples of citing sources for different numbers of authors are explained in the examples for books.	
TYPE OF SOURCE	CITATION IN THE LIST OF SORUCES	EXPLANATION	CITATION IN THE TEXT
Article in printed journal with the year and the number.	Košir, M. (2002). Arhivistika – pot do samostojne znanstvene discipline. Arhivi, 25(1), 295–301.	Write down the title and year of the journal in italics; write the magazine number in brackets.	(Košir, 2002)
Article in printed journal with the year and without the number.	Žontar, J. (1995). Zgodovina arhivistike na Slovenskem. Arhivi, 18. 13–17.	Write down the title and year of the magazine in italics.	(Žontar, 1995)
Article in printed journal without the year and without the number	Eastwood, T. (2002). Reflections on the Goal of Archival Appraisal in Democratic Societies. Archivaria (54), 59–71.	Write the title of the magazine in italics; write the magazine number in brackets.	(Eastwood, 2002)
Article in daily newspaper	Petrovec, D. (16. 1. 2017). Vrhunska znanost in črn otrok. Dnevnik, 67(12), 14.	In the list of sources, we indicate the exact date of the article; when quoting in the text, we mention only the year	(Petrovec, 2017)
An article in a daily newspaper without an author	Pomisleki glede prodaje NLB. (30. 3. 2017). Dnevnik, 67(74), 3.	In the list of sources, we indicate the exact date of the article; when citing in the text, only the year is mentioned. In the text, we quote the first few words of the citation in the list of sources (usually the beginning of title or full title). When quoting in the text, write the title or the beginning of the title in quotation marks.	(»Pomisleki glede prodaje NLB«, 2017)

ARTICLE IN THE ELECTRONIC VERSION OF THE JOURNAL/DAILY NEWSPAPER Surname, first name. (year/date). Article Title: Subtitles. Title of journal/daily newspaper, year (issue), first page of the article - last page of the article. Retrieved at http://xxxxxxxxxxxx (accessed on date of access). Surname, first name. (year/date). Article Title: Subtitle. Title of magazine/magazine, year (issue), first page of the article - last page of the article. doi:xxxxxx/xxxxxxxxxxxx (accessed on date of access).		We cite them in the same way as articles in printed journals, except that we add a web link or a doi tag after the bibliographic data. The web link and the doi (Digital Object Identifier) must be written in bold, not underlined. Examples of citing sources for different numbers of authors are explained in the examples for books..	
TYPE OF SOURCE	CITATION IN THE LIST OF SORUCES	EXPLANATION	CITATION IN THE TEXT
Article in the electronic version of the journal	Duranti, L. (2010). Concepts and principles for the management of electronic records, or records management theory is archival diplomatics. Records Management Journal, 20(1), 78–95. Retrieved at: http://dx.doi.org/10.1108/09565691 011039852 (accessed on 13. August 2022).	For bibliographic data and phrase „Retrieved at“ we add a web link. The link must be written in black font and not underlined. Follow the access date in parentheses for the link. Write the title of the magazine in italics.	(Duranti, 2010)
Article in the electronic version of the journal with DOI	Flynn, S. J. (2001). The Records Continuum Model in Context and its Implications for Archival Practice. Journal of the Society of Arhivists, 22(1), 79–93. Retrieved at: https://doi.org/10.1080/00379801 20037522 (accessed on 31 July 2022).	After the bibliographic data, we add „doi:“ and the appropriate label. (doi – Digital Object Identifier) Write the title of the magazine in italics.	(Flyn, 2001)
Article in the electronic daily newspaper	Suhodolčan, B. (8. 3. 2023). (Pismo Bralca) Sončne elektrarne in cena električne energije. Večer. Retrieved at https://vecer.com/pogledi/pismo-bralca-soncne-elektrarne-in-cena-elektricne-energije-10328522 (accessed on 10. 3. 2023).	In the list of sources, we indicate the exact date of the article; when citing in the text, only the year. Write the address of the online newspaper in italics	(Suhodolčan, 2023)
Article on the online information portal	Širok, M. (6. 3. 2023). EU odločanje o prepovedi prodaje vozil z motorji na notranje izgorevanje preložil na nedoločen čas. MMC RTV Slovenija. Retrieved at https://www.rtvslo.si/evropska-unija/eu-odlocanje-o-prepovedi-prodaje-vozil-z-motorji-na-notranje-zgorevanje-prelozil-na-nedolocen-cas/660104 (accessed on 8.3.2023).	In the list of sources, we indicate the exact date of the article; when citing in the text, only the year is mentioned. We write the address of the information portal in italics, which we state as it is written on the website - do not copy the start of an online connection.	(Širok, 2023)
Article on the online information portal, author indicated by abbreviation	B. V. in K. S. (8. 3. 2023). ZN: Afganistanke najbolj zatirane ženske na svetu. MMC RTV Slovenija. Retrieved at https://www.rtvslo.si/svet/zn-afganistanke-najbolj-zatirane-zenske-na-svetu/660403 (accessed on 9. 3. 2023).	The abbreviation given as the author, is listed and cited in the order in which it is written with the article. In the list of sources, we indicate the exact date of the article; when quoting in the text, we mention only the year.	(B. V. in K. S., 2023)

Password in the dictionary, encyclopaedia on the website	Institut za slovenski jezik ZRC SAZU [Fran]. (2022a). Hibrid. Retrieved at: https://fran.si/iskanje?View=1&Query=hibrid (dostop 20. 1. 2022). Institut za slovenski jezik ZRC SAZU [Fran]. (2022b). Teorija. Retrieved at: https://fran.si/iskanje?FilteredDictionaryIds=130&View=1&Query=teorija (accessed on 3. 9. 2022).	When citing entries from dictionaries or encyclopaedias, we use the institution that published the dictionary/encyclopaedia as the author, and indicate the year in parentheses. For Internet resources, we use the year of the last website update. If we have several passwords and the same year, separate them with a, b, c. We write the title of the password in italics.	(Fran, 2022a) (Fran, 2022b)

OFFICIAL AND OTHER SOURCES			
TYPE OF SOURCE	CITATION IN THE LIST OF SORUCES	EXPLANATION	CITATION IN THE TEXT
Law/Act official publication in the Official Gazette of the Republic of Slovenia	Zakon o varstvu dokumentarnega in arhivskega gradiva ter arhivih (ZVDAGA). (2006, 2014). Uradni list RS, (30/06, 51/14).	In the list of sources used, we indicate the original law with all amendments (year and number of the published amendment). When quoting in the text, we write only the year of the original law/act. If we quote the law/act in the text several times, we can also decide to use an abbreviation. Write „Uradni list RS“ (“Official Gazette of RS”) in italics.	(ZVDAGA, 2006)
Law/Act official publication in the Official Gazette of the Republic of Slovenia with officially revised text and changes	Kazenski zakonik (KZ-1-UPB2). (2012, 2015, 2016). Uradni list RS, (50/12, 54/15, 6/16, 38/16).	In the list of sources used, we indicate the year and number of the publication of the officially revised text and all changes published after this publication (year and number of the published change). When quoting in the text, we write only the year of the officially revised text. If we quote the law/act in the text several times, we can also decide to use an abbreviation. Write „Uradni list RS““(“Official Gazette of RS”) in italics.	(KZ-1-UPB2, 2012)
Amendments and additions to the law/act official publication in the Official Gazette of the Republic of Slovenia	Zakon o spremembah in dopolnitvah Zakona o varstvu dokumentarnega in arhivskega gradiva ter arhivih (ZVDAGA--A). (2014). Uradni list RS, št. 51/14.	If we want to note in the text when exactly a certain change in the law/act was adopted (e.g. amendment of one of the articles), we must quote and cite exactly this amendment to the law/act.	(ZVDAGA-A, 2014)
Law in book form usually with commentary by the group of authors	Pirc Musar, N., Bien, S., Bogataj, J., Prelesnik, M. in Žaucer, A. (2006). Zakon o varstvu osebnih podatkov (ZVOP-1): S komentarjem (with commentary). Ljubljana: GV založba.	We cite the law/act in book form only if we cite a published commentary in the text.	(Pirc Musar et al., 2006)
Court decision/ sentence	Ustavno sodišče RS. (2014). Odločba št. U-I-70/12 z dne 21. 3. 2014. (The Constitutional Court of the Republic of Slovenia. (2014). Decision no. U-I-70/12 of 21 March 2014.)	When citing a decision/sentence of the court in the list of sources, it is not written in italics texts.	(Ustavno sodišče RS, 2014) (Constitutional court of RS, 2014)
Standard	International Organization for Standardization (ISO). 2016. ISO 15489-1:2016: Information and Documentation - Records Management. Part 1: Concepts and Principles.		(ISO 15489-1:2016)

OTHER ELECTRONIC PUBLICATIONS		When stating the year or the date of the source in parentheses, we never state the date of accessing the source from the Internet, but the information about the publication of the source or its last change. If this information is not available, instead of the year we write the abbreviation „n.d.“, which means „no date“, in brackets.	
TYPE OF SOURCE	CITATION IN THE LIST OF SORUCES	EXPLANATION	CITATION IN THE TEXT
Website/subpage of the organization without year or date of publication	Government of the Netherlands (s. d.). About the government. Retrieved at https://www.government.nl/government/about-the-government (accessed on 5. 1. 2023).	If it is information about an organization or its work, the author can be the organization itself. If there is no information about the year of publication or the last change of the website, we use the abbreviation “n. d.”. The title on the website is written in italics.	(Government of the Netherlands, n. d.)
Website/subpage of the organization with the year of publication indicated	Vrhovno sodišče Republike Slovenije [VS RS]. (2020). Pravilnik o hrambi spisov in drugega dokumentarnega gradiva. Retrieved at https://www.sodisce.si/mma_bin.php?static_id=2020110511401387 (accessed on 5. 3. 2021).	If it is information about an organization or its work, the author can be the organization itself. In parentheses, we indicate the year of the last modification of the website, which is indicated at the bottom of the page. Write down the online title in italics. If the name of the organization is long and the source is cited several times in the text, an abbreviation can be introduced in the first citation, which is then used in all subsequent citations. The abbreviation must also be given next to the name of the organization in the list of used resources.	(VS RS, 2020)
Website/subpage of the organization with the indicated publication date	Ministrstvo za kulturo. (7. 3. 2023). Kultura za prihodnost: serija posvetov o viziji kulturne politike. Retrieved at https://www.gov.si/novice/2023-03-07-kultura-za-prihodnost-serija-posvetov-o-viziji-kulturne-politike/ (accessed on 9. 3. 2023).	If it is information about an organization or its work, the author can be the organization itself. In the list of sources, we indicate the exact date of publication; when citing in the text, only the year is mentioned. Write down the online title in italics.	(Ministrstvo za kulturo, 2023)
Online video (such as. YouTube)	International Council on Archives [ICA]. (1. 3. 2022). Artificial Intelligence in Archival Appraisal & Selection Webinar - Day 2 [Video]. Retrieved at https://www.youtube.com/watch?v=VO-AiLS3CQ_k (accessed on 15. 5. 2022).	We add an explanation of what kind of source it is in square brackets after the title. In the list of sources, we indicate the exact date of the publication; when citing in the text, only the year is mentioned.	(ICA, 2022)
Online presentation	Duranti, L. (5. 10. 2015). Archival Diplomatics of Digital Records [Presentation]. Retrieved at http://www.interpares.org/display_file.cfm?doc=ip1-2_canada_dissemination_ls_duranti_um_2010.pdf (accessed on 9. 6. 2021).	In square brackets after the title, we add an explanation of what kind of source it is. In the list of sources, we indicate the exact date of publication; when citing in the text, only the year is mentioned.	(Duranti, 2015)

ARCHIVAL MATERIALS Title of the document. (time of creation of the document). signature and fund or collection, technical unit number, name of institution or archive.			
TYPE OF SOURCE	CITATION IN THE LIST OF SORUCES	EXPLANATION	CITATION IN THE TEXT
Archival material in physical form	Poročilo o sodni stavki. (15. 3. 1923). SI_ZAC/0609 Okrožno sodišče Celje, a. š. 15. Zgodovinski arhiv Celje.	In the list of sources, we indicate the exact date of publication; when citing in the text, only the year is mentioned	(Poročilo o sodni stavki, 1923)
Archive material in digital format (or available in digital format)	Poročilo o sodni stavki. (15. 3. 1923). SI_ZAC/0609 Okrožno sodišče Celje, a. š. 15, Zgodovinski arhiv Celje. Retrieved at https://vac.sjas.gov.si (accessed on 15. 2. 2023).	In the list of sources, we indicate the exact date of the publication; when citing in the text, only the year is mentioned	(Poročilo o sodni stavki, 1923)

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