Authority, Provenance, Authenticity, Evidence

Selected Papers from the Conference and School Authority, Provenance, Authenticity, Evidence

Sveučilište u Zadru
1396 2002
Universitas Studiorum Jadertina

Sveučilište u Zadru
www.unizd.hr

Za nakladnika
prof. dr. sc. Dijana Vican

Predsjednik Povjerenstva za izdavačku djelatnost Sveučilišta u Zadru
prof. dr. sc. Josip Faričić

Odjel za informacijske znanosti
Studije iz knjižnične i informacijske znanosti
Knjiga 4

Urednice
prof. dr. sc. Mirna Willer
prof. dr. sc. Anne J. Gilliland
doc. dr. sc. Marijana Tomić

Urednički odbor
doc. dr. sc. Franjo Pehar
prof. dr. sc. Ivanka Stričević
izv. prof. dr. sc. Nives Tomašević
doc. dr. sc. Marijana Tomić
prof. dr. sc. Mirna Willer

Glavni urednik
prof. dr. sc. Mirna Willer

Poslijediplomski studij „Društvo znanja i prijenos informacija“
Voditeljica doktorskog studija
prof. dr. sc. Mirna Willer

Konferencija i škola o autoritetu, provenijenciji, autentičnost i dokazima
Zadar, 18. do 21. listopada 2016.
http://apae.unizd.hr

Voditeljice Konferencije i škole
prof. dr. sc. Mirna Willer
prof. dr. sc. Anne J. Gilliland
doc. dr. sc. Marijana Tomić

Recenzenti
prof. dr. sc. Erich Renhart
dr. sc. Jozo Ivanović

Prijevod sažetaka na hrvatski
Marija Schjaer

ISBN 978-953-331-220-0

CIP zapis dostupan u računalnom katalogu
Znanstvene knjižnice Zadar pod brojem XXX

University of Zadar
www.unizd.hr

For the Editor
Dijana Vican, Ph.D., Professor

President of the Publishing Committee of the University of Zadar
Josip Faričić, Ph.D., Professor

Department of Information Sciences
Studies in Library and Information Sciences
Volume 4

Editors
Mirna Willer, Ph.D., Professor
Anne J. Gilliland, Ph.D., Professor
Marijana Tomić, Ph.D., Assistant Professor

Editorial Board
Franjo Pehar, Ph.D., Assistant Professor
Ivanka Stričević, Ph.D., Professor
Nives Tomašević, Ph.D., Associate Professor
Marijana Tomić, Ph.D., Assistant Professor
Mirna Willer, Ph.D., Professor

Editor-in-Chief
Mirna Willer, Ph.D., Professor

Postgraduate Programme “Knowledge Society and Information Transfer”
Director of the Postgraduate Programme
Mirna Willer, Ph.D., Professor

Conference and School Authority, Provenance, Authenticity, Evidence
Zadar, Croatia, 25-28 October 2016
http://apae.unizd.hr

Directors of the Conference and School
Mirna Willer, Ph.D., Professor
Anne J. Gilliland, Ph.D., Professor
Marijana Tomić, Ph.D., Assistant Professor

Referees
Erich Renhart, Ph.D., Professor
Jozo Ivanović, Ph.D.

Translation of abstracts into Croatian
Marija Schjaer

ISBN 978-953-331-220-0

SVEUČILIŠTE U ZADRU
UNIVERSITAS STUDIORUM JADERTINA

Authority, Provenance, Authenticity, Evidence

Selected Papers from the Conference and School Authority, Provenance, Authenticity, Evidence, Zadar, Croatia, October 2016

Edited by Mirna Willer, Anne J. Gilliland and Marijana Tomić

Sveučilište u Zadru
Zadar, 2018.

CONTENTS

Introduction 8

I. Shifting Conceptual Constructions in Archival Science 11

Greg Rolan. Shifting Conceptual Constructions in Archival Science: An Introduction 13

Anne J. Gilliland. Authority, Provenance, Authenticity and Evidence and Archival Humanitarianism 17

Giovanni Michetti. Provenance: Development of a Concept 39

II: Authority and Authenticity 69

Milan Mihaljević. Description of Newly Discovered Glagolitic Manuscripts 71

Gordon Dunsire and Mirna Willer. Authority Versus Authenticity: The Shift from Labels to Identifiers 87

III. Originals and Copies 117

Milan Pelc. Prints and Drawings Between Originality, Authenticity and Authority: Examples from the Valvasor Collection in Zagreb, Croatia 119

Tamara Štefanac. Use of Either Original or Surrogate Records in Museum Exhibitions: A Case Study 145

IV. Digital Transformations and Provenance 169

Rimvydas Laužikas. Digital Effects-based Transformations in Heritage Practices and Knowledge Work 171

Regina Varnienė-Janssen and Albertas Šermokas. Provenance in the Context of Digital Cultural Heritage Content: The Lithuanian Approach 213

Marijana Tomić and Tinka Katić. Provenance in ALM Communities: Three Competing Concepts? 259

V. Evidence and Evidencing 289

Jelena Lakuš. Evidence of Reading in the Past 291

VI. Libraries and Archives on the International Agenda 331

Charles J. Farrugia and Ana Pervan. Indigenous Peoples and National Identity Challenges: Two Case Studies from Libraries and Archives 333

VII. Methodological Approaches 353

Mario Katić. The Relevance of the Context 355

Grozdana Franov-Živković. Glagolitic Confraternities' Books of the Zadar Area and their Value as Historical Documents 377

Zaruhi Grigoryan. Authority as Reflected in a Corpus Study of Coined and Borrowed Eastern Armenian Words in the Soviet and Post-Soviet Eras 409

VIII. Appendices 429

Biographical notes 431

Conference and School Authority, Provenance, Authenticity, Evidence: Programme 441

INTRODUCTION

Mirna Willer, Anne J. Gilliland and Marijana Tomić
Editors

In 2009, the Summer School in the Study of Old Books was organised by the Department of Information Sciences of the University of Zadar, Croatia. The Summer School was open to students from Zadar and from other schools in the region and across Europe. That event, which resulted in the first publication of proceedings in this series, brought together experts addressing current scholarship and developments in practice relating to old and rare books. It was specifically intended to feature aspects that are prominent in or distinctive to Croatia and/or south-eastern Europe as well as the state of the art elsewhere in Europe and the United States. Following the success of this event, another two Summer Schools were organised at the University of Zadar in 2011 in the Study of Historical Manuscripts, and in 2013 in Records, Archives and Memory. The latter Summer School was expanded to include a conference and invited the participation of leading scholars and professionals from Australia, Europe and the United States. The fourth Conference and School in the series, to which these proceedings pertain, was organised in 2016 on the theme "Authority, Provenance, Authenticity, Evidence". The conferences were jointly organised or supported by Karl-Franzens-University Of Graz, Austria, Vestigia – Manuscript Research Centre; University of Zagreb, Croatia, Faculty of Social Sciences and Humanities, History Department; UCLA, Los Angeles, USA, Department of Information Studies, Graduate School of Education & Information Studies; ICARUS - International Centre for Archival Research, Vienna, Austria; Scientific Centre of Excellence for Croatian Glagolitism, Zagreb, Croatia, and Croatian State Archives, Zagreb, Croatia.

The Conference and School for 2016 aimed at focusing on historical and contemporary understandings and manifestations of the concepts of authority, provenance, authenticity and evidence in diverse cultural, community, disciplinary, professional and technological contexts, as well as on the nature, valence and relevance of these concepts looking toward the future. The theme of the conference and school was the first in this series to take a conceptual rather than a material-based approach. We chose this as a kind of "wrapper" and concluding rubric for the topics that we had started to discuss in 2009: from the particular – old and rare books viewed from the bibliographic perspective – to the all-embracing concepts of authority, provenance, authenticity and evidence, often understood as primarily archival concepts but present, implicitly or explicitly in other professional and disciplinary fields such as librarianship, museology, linguistics, art history, ethnology and preservation. Presenters addressed theoretical and methodological considerations, as well as conceptual model design and the development of metadata ontologies, and the results of their own research investigations into different kinds of texts and the application of current technologies in the digital environment and practices responding to professional, humanitarian and national identity challenges. As in previous events, to address our ambitious scope we invited the participation of leading scholars and professionals from around the world, in this case, from Albania, Armenia, Australia, Austria, Bosnia and Herzegovina, Croatia, Italy, Lithuania, Malta, Slovenia, Switzerland, the United Kingdom and the United States.

This volume includes selected refereed papers from that event, organised around the seven sub-themes of the conference: *Shifting Conceptual Constructions in Archival Science, Authority and Authenticity, Originals and Copies, Digital Transformations and Provenance, Evidence and Evidencing, Libraries and Archives on the International Agenda, and Methodological Approaches*. We believe that the papers in this volume provide some vivid illustrations of the different ways in which these various concepts are construed in different fields and will be thought-provoking and inspirational for future research, standards development and indeed understanding the interfaces between the archives, library and museum professions and disciplinary scholarship, as well as between different regions of the world. It is our intention to continue this work through future conferences and summer schools.

I

Shifting Conceptual Constructions in Archival Science

SHIFTING CONCEPTUAL CONSTRUCTIONS IN ARCHIVAL SCIENCE *AN INTRODUCTION*

Greg Rolan
Monash University, Melbourne, Australia

Let me say from the outset that I feel particularly privileged to have been asked to introduce and comment on the papers presented at the opening of the conference and school. The topic for that first session was titled 'Shifting Conceptual constructions in Archival science', but perhaps *shifting* is too weak a word for what the presentations actually convey. Both Professor Anne Gilliland's *Reframing archival understandings of authority, provenance, authenticity, and evidence in support of humanitarianism* and Assistant Professor Giovanni Michetti's *From the principle of provenance to the provenance ontology* upend traditional notions of archival conceptualisation — albeit from different perspectives. I think *disruptive* would be a better word to describe the effect of the phenomena being addressed in these papers.

The topic suggests that we are at the tipping point of the sociomateriality of recordkeeping; sociomateriality being the entanglement of the social and technical, of agency and artefact.[1] Both authors suggest that we need ask ourselves some fundamental, existential questions. What (and who)

1 Dubravka Cecez-Kecmanovic, Robert D. Galliers, Ola Henfridsson, Sue Newell, and Richard Vidgen, "The sociomateriality of information systems: Current status, future directions," *MIS Quarterly*, 38:3 (2014), 809-830.

are records actually for? What is it that recordkeepers should be doing? What is it that our systems – and by systems I mean the complete sociomaterial framework of theory, principles, policy, standards, participants, and workflows, as well as technical systems and interfaces – need to be able to do? In the words of Gilliland, "what business are archives in today"? These issues affect the very core of what we, as archivists or recordkeepers understand our mission to be. And, as both authors point out, it is considerably more than simply arrangement and description. These ideas aren't new, given the historical perspectives provided by both authors, but from both papers we can draw the conclusion that there are a number of factors that give them a new urgency.

To me, what both authors are arguing is that we are witnessing a breakdown of traditional recordkeeping paradigms. In some ways this is unsurprising. If we accept that recordkeeping is a reflection of society; and society is being disrupted in various social and technical ways, then we would hardly expect our recordkeeping to remain static. So then, what is changing? Where is the disruption coming from?

Internet commentator Clay Shirky explored this phenomenon several years ago. In his book *Here comes everybody*,[2] Shirky describes a number of emergent trends; remembering, of course, that one of the key attributes of a sociomaterial perspective is recognition of the emergent nature of related phenomena. Shirky describes how the dis-intermediation of web technologies has led to emergent social phenomena affecting power structures, economics, and even the constitution of community:

- from simplistic hierarchies to complex networks,
- from the centre to the periphery, and
- from products to process.

It is also interesting to note that Shirky published this before the mobile and cloud phenomena really took off. Anyway, how does this shift from the centre to the edge; from hierarchies to networks; from product to process play out in the recordkeeping world? To begin with, Gilliland brings in to sharp relief the issues of "survival, resettlement and recovery

2 Clay Shirky, *Here comes everybody* ([London]: Allen Lane, 2008).

of those displaced through violence or environmental, economic or other exigencies" and the major disparities between the "bureaucratic and legal record" on the one hand and the "human and humanitarian record" on the other.

Similarly, Michetti points out that, not only is there a disruption coming, not only from the digitisation of recordkeeping, but from a shift of orientation from institutional to networked infrastructure. Michetti's discussion of issues of trust when "documents on the Internet [...] can be de- and re-contextualized with little attention to their authenticity" echoes Gilliland's proposition that, as recordkeepers, we are now confronted with "irregular records and regular records that are used in irregular ways" — none of which may necessarily result from malicious intent, but from the sociomaterial adaptation to the changing nature of society and technology.

I would like to advance the proposition that what we are experiencing is the confluence of three interdependent factors: The growing volume of records (confounded by the multiple ways in which they can be comprehended); the growing effects of national and international social disruption; and the disrupting effects of emergent networked and digital technologies. One of these 'disturbances in the force' would be sufficient to give the recordkeeping community a headache. That all three are manifesting simultaneously presents us with a wicked problem; a grand challenge.[3] For those of us involved in the development of recordkeeping infrastructure, or the sociomaterial conceptualisations that underpin such infrastructure, these are fundamental questions indeed. And, as Susan Leigh Star argues, if infrastructure is an embodiment of standards[4] then, if we don't get our standards (or our conceptualisations) right, we will never get to the infrastructure that we need.

Maybe standards and policy setting bodies aren't the best mechanisms through which this can be achieved. Perhaps we need to re-imagine how

3 Anne Gilliland and Sue McKemmish, "Recordkeeping Metadata, the Archival Multiverse, and Societal Grand Challenges," in *Proc. Int'l Conf on Dublin Core and Metadata Applications 2012*, http://dcevents.dublincore.org/IntConf/dc-2012/paper/viewPaper/108.

4 Susan Leigh Star, *Got infrastructure? How standards, categories, and other aspects of infrastructure influence communication* (2002), oai:CiteSeerX.psu:10.1.1.19.7523.

we do our definitional work – though, as Gilliland points out, nailing down concepts is not a trivial task. Rather, it may be that we need to embrace the disruption and move power out from the centre to the edge of the network, while acknowledging and, hopefully, mitigating the risks that Michetti describes. The World Wide Web ecosystem has grown explosively, not through centralised committees, but from agile and responsive networks of people, trying to solve their local problems, while realising that interoperability is a first-class priority. If you aren't interoperable you aren't in the network and as power shifts to the edge, you're going to be left behind. Perhaps we need to think about standards less as products and more as processes, how we arrive at consensus, what's the minimum that we need to ensure that the network works? How do we allow and ensure that the network evolves?

How we do this is very difficult. And, as both authors argue, the solutions may well run counter to much of what we've been taught and tried to practice. But I trust that audience for these papers comprises really smart people who understand the issues and can conceive of pathways to approach this wicked problem. It's up to you to make it so.

AUTHORITY, PROVENANCE, AUTHENTICITY AND EVIDENCE AND ARCHIVAL HUMANITARIANISM

Anne J. Gilliland
Department of Information Studies,
University of California,
Los Angeles, USA

Keywords:
archivistics, evidence, humanitarianism, participatory archiving, rights in records

Abstract

This paper contemplates archival understandings of authority, provenance, authenticity and evidence and their congruence with legal needs and the requirements of official recordkeeping functions, and how rigid constructions of these concepts may limit the potential for more humanitarian-oriented archival practices. It reviews several recent propositions for how archival ideas and practices might be reconceived in order to better address pressing human rights and social justice concerns. With these in mind, it questions whether current understandings are sufficiently expansive and nuanced to encompass traditional archival roles and stances as well as a more explicit humanitarian orientation, or whether the latter would require more fundamental reconceptualization.

Introduction

The professional field of archivistics (and its alternate conceptualizations, archival science and recordkeeping[1]), has throughout its history been arguably more invested in, preoccupied with, and some might say strait-jacketed by the notion of concepts and associated principles that flow from them, than has any other sector of the information, cultural or memory professions. In archivistics the concepts of authenticity, provenance and evidence are all integral to the notion of authority and presumptions of trustworthiness. However, many or all of these concepts also feature prominently in related fields such as library and information science, and museum studies. Some have argued that they might thus provide a basis for creating more common understanding across these professions and even between archivistics and some of its ancillary disciplines such as history, law, philology and literature. If so, maybe they could also become key elements supporting descriptive interoperability? But just like the linguistic idea of "false friends ' where the same or similar words can diverge significantly in meaning in different languages, so too the use of the same or similar words in different fields does not necessarily mean that the underlying conceptualizations, semantics and roles associated with those words within those fields are also the same. The concepts, therefore, must first be unpacked and their roles examined within their various professional and disciplinary usages. Only then can these usages be juxtaposed to get a sense of the degree of convergence or overlap. Moreover, the semantics of many concepts do not and should not remain completely static, even if their essence remains the same. They are necessarily redefined and expanded in light of changing social, technological and professional dynamics, and emerging thinking and new demands within and across fields on an ongoing basis. For example, as will be discussed further later in this paper, in 2014, Caswell proposed a theoretical framework for managing records that document human rights abuse based on five key principles

1 For a fuller discussion of each of these terms, see Anne J. Gilliland, "Archival Traditions in the Multiverse and their Importance for Researching Situations and Situating Research," Chapter 1, *Research in the Archival Multiverse*, A. J. Gilliland, A. Lau and S. McKemmish, eds. (Melbourne: Monash University Press, 2016), 31-73.

learned from work in community-based archiving:[2] participation, shared stewardship, multiplicity, archival activism, and reflexivity.[3] Gilliland and McKemmish have suggested a suite of rights in records that could serve as a platform for participatory archiving and especially participatory appraisal and description.[4] Gilliland, in examining how the archival field might play a more proactive role in supporting the survival, resettlement and recovery of those displaced through violence or environmental, economic or other exigencies, has argued that even further theoretical, organizational and practical reorientation of the ideas and practices of archivistics is required. Such reorientation should be based in transnational and transinstitutional thinking and proactive humanitarianism that engage at the level of affected individuals and their everyday lives.[5] Caswell and Gilliland have also introduced the notions of imagined records and impossi-

2 This includes community-based archives and other forms of community-initiated documentary or memory activities that are created and managed by communities or groups that identify on the basis of race, ethnicity, class, status, experience, gender, sexual identity, and so forth. Sometimes referred to as community-centric or grass-roots archives, or archives from-the-bottom-up they often operate outside establishment archives and practices and with a social justice or other activist or oppositional stance and their defining characteristics tend to be that they are created and managed by the community for the community. Gilliland and Flinn note that: "Some of the factors that motivate community archives include the following:
The identification, collection and use of historical sources to document histories perceived to be ignored or misrepresented.
Active engagement in the construction of history rather than passive or disinterested curation.
History-making as a participative practice—as heritage activism.
Embodiment of DIY cultural and political engagement (i.e., without the aid of "professionals").
Making the past "useful"—community-based archiving as social movement activism and mobilization.
Community-based history-making and archiving for education and identity formation.
Creating spaces of aspiration and possibility.
Community-based archives as community-owned space (place of safety, place of resistance, as monument to presence)."
Anne J. Gilliland and Andrew Flinn, "The Wonderful and Frightening World of Community Archives: What Are We Really Talking About?" Keynote address, *Nexus, Confluence, and Difference: Community Archives meets Community Informatics: Prato CIRN Conference Oct 28-30 2013*, Larry Stillman, Amalia Sabiescu, Nemanja Memarovic, eds. (Melbourne: Centre for Community Networking Research, Centre for Social Informatics, Monash University, 2013).

3 Michelle Caswell, "Toward a Survivor-centered Approach to Records Documenting Human Rights Abuse: Lessons from Community Archives," *Archival Science* 14:3 (2014): 307-322.

4 Anne J. Gilliland and Sue McKemmish, "The Role of Participatory Archives in Furthering Human Rights, Reconciliation and Recovery," *Atlanti: Review for Modern Archival Theory and Practice* 24 (2014): 79-88; and Anne J. Gilliland and Sue McKemmish. "Rights in Records as a Platform for Participative Archiving," Chapter 14, Richard J. Cox, Alison Langmead and Eleanor Mattern, eds. *Archival Education and Research: Selected Papers from the 2014 AERI Conference* (Sacramento, CA: Litwin Press, 2015), 355-385.

5 Anne J. Gilliland, "A Matter of Life and Death: A Critical Examination of the Role of Official Records and Archives in Forced Displacement," *Critical Archival Studies*, special issue, Michelle Caswell, Ricardo Punzalan and T-Kay Sangwand, eds. *Journal of Critical Library and Information Studies* 1:2 (2017).

ble archival imaginaries, while Gilliland has argued for parallel notions of irregular records and records that are used in irregular ways.

Such propositions arise out of criticisms that archival concepts historically emanate out of archival roles that privilege the record-keeping needs and interests of state and other high power institutions, and support national juridical structures and narratives rather than affected individuals and their records' concerns. Key concepts such as authenticity, provenance, authority and evidence, therefore, were not necessarily designed to encourage or help the field to respond to past injustices and inequities or contemporary humanitarian[6] crises. If such concepts are to function in a more liberatory or empowering mode, as they are increasingly called upon to do, they equally cannot become so closely defined by professional practices, standards and juridical usages as to be straitjacketed.

Background

These four concepts, separately and in various groupings, have been under continual re-examination and re-scoping within the archival field over the past two decades. In fact, it is possible to identify what amount to two distinct movements that are sometimes construed as being at odds with each other but which inevitably must interact if the demands being made upon the field today are to be fully addressed, and if it is to exercise its humanitarian potential effectively.

One movement, working to ensure the creation, management and preservation of trustworthy digital records and the operation of trusted digital repositories, has been supported by a considerable amount of professional momentum as well as investment in research and development worldwide. Successive InterPARES projects,[7] for example, have been re-examining, re-articulating and re-emphasizing the validity and utility of the traditional concepts of authority, provenance, authenticity and evidence,

6 Defined by the *Oxford English Dictionary* as "the promotion of human welfare".

7 International research on Permanent Authentic Records in Electronic Systems (InterPARES), www.interPARES.org and the InterPARES Trust, *https://interparestrust.org/*.

among others, as integral to the creation, preservation and provision of trustworthy digital records.[8] In this they are also underscoring the close lineage from conceptual understandings about authenticity and evidence that lie at the heart of the science of diplomatics and those subsequently developed by both archivistics and legal theory.[9] Standards and best practices developed for digital curation also address the need to establish and document provenance in order to clarify the authoritativeness of digital copies as well as of born-digital materials, and the nature of any relationships between originals and their copies and further digital versions created through different kinds of re-uses such as remixing and mash-ups.[10] This is essential not only for version control but also for assigning and tracking intellectual property and other rights, tracing the evolution of an idea or product, and so forth. In the development of metadata schemes to support the networking or interoperability of digital resources, it is necessary to delineate and incorporate elements documenting assumptions of trust, source, version, relationships and rights in order to support mapping between disparate and distributed sources and resources. Similarly, for those trying to identify materials needed for the virtual reunification of a fond that has been divided or its contents otherwise displaced or dispersed, or to identify alternate copies of the same materials that may be located in different repositories/institution types/ nations, provenance tracing as well as authority work become key tools.[11]

The necessities of consistent, closely articulated conceptual underpinnings in such applications are easy to grasp. However, there is a second movement or strand of reconceptualization that draws on critical theory to present equally compelling arguments for more contextualized and

8 Philip C. Bantin, ed., *Building Trustworthy Digital Repositories: Theory and Implementation* (Lanham: Rowman & Littlefield, 2016); Jessica Bushey, Marie Demoulin, Robert McLelland, "Cloud Service Contracts: An Issue of Trust", *Canadian Journal of Information and Library Science*, 39:2 (2015): 128-153; Victoria L. Lemieux, ed. *Building Trust in Information: Perspectives on the Frontier of Provenance* (Cham: Springer International Publishing, 2016).

9 Luciana Duranti, *Diplomatics: New Uses for an Old Science* (Scarecrow Press, 1998).

10 Gillian Oliver and Ross Harvey, *Digital Curation* (Chicago, IL: American Library Association, 2016); International Organization for Standardization, *ISO 16363:2012 Space Data and Information Transfer Systems – Audit and Certification of Trustworthy Digital Repositories* (2012).

11 Anne J. Gilliland, "Networking Records in Their Diaspora: A Reconceptualization of "Displaced Records" in a Postnational World," Chapter 11, James Lowry, ed. *Displaced Records* (London; New York: Routledge, Taylor & Francis Group, 2017), 180-196.

flexible understandings of these concepts. Critical theory focuses on social structures and power relations and, when applied in professional contexts, seeks to propose ways to redress inequities, marginalisations and oppression. There has been a notable decrease in confidence over the past decade in the fitness and appropriateness of traditional understandings and applications of archival concepts to encourage a humanitarian ethos in archival practice. Such an ethos would encompass the plural constituencies that must be addressed by the field's expanding societal roles and new forms of community and trans-cultural engagement; actively prioritise redress of past injustices and marginalisations in which recordkeeping and archival practices were conscious or unconscious participants; and promote an ethical consciousness as it relates to human rights, social justice, and more human welfare more broadly.

One example of what form this might take and the professional and conceptual issues that might encounter was Australian archival theorist Chris Hurley 1990s proposed expansion of the concept of provenance to encompass co-creatorship. Hurley, and various subsequent authors, have argued that co-creatorship offers a way to acknowledge, give voice to, and describe the roles of those who were involved with the creation of the record and its metadata as contributors, subjects, legatees, even victims in addition to the "official" author or office currently acknowledged through the designation of provenance.[12] However the identification of these additional parties as co-creators challenges traditional archival ideas about singular provenance or the assignment of provenance based upon the authority of the agent or function creating the record.[13] It also, therefore, challenges established descriptive standards and practices that are based on those ideas, not to mention a whole world of rights management that would find it extremely difficult to accommodate Hurley's conceptualiza-

12 Chris Hurley, "Parallel Provenance: (1) What, If Anything, is Archival Description?" *Archives and Manuscripts* 33 (2005): 110-45, and "Parallel Provenance: (2) When Something is *Not* Related to Everything Else," *Archives and Manuscripts* 33 (2005): 52-91; Anne J. Gilliland, "Contemplating Co-creator Rights in Archival Description," *Knowledge Organization* 39:5 (September 2012): 340-346.

13 Since this paper was presented the International Council on Archives Expert Group on Archival Description (EGAD) released Records in Contexts (RIC), its draft conceptual model for archival description. The draft incorporates more ways for viewing and assigning provenance than has previously been possible, although it has yet to be finalised in light of feedback received during the period that was opened for comments. http://www.ica.org/en/egad-ric-conceptual-model.

tions of multiple simultaneous and parallel provenance or the social justice orientation of the notion of co-creation or of rights in records. Moreover, there is concern within this movement itself as to whether a designation as co-creator might convey a false sense of agency on the part of those who were coerced or unwitting participants in the activity that led to the creation of the record, such as the prisoners in Tuol Sleng prison in Cambodia who, as Michelle Caswell has observed, were forcibly photographed before being executed by the Pol Pot regime.[14]

A second, less abstract, example relates to the status of records created in a personal capacity by individuals using digital media in situations that make it impossible to meet stringent requirements for the creation of reliable and preservation of authentic records. In 2016, Croatian media carried an interview with a Syrian journalist who concluded that the most important things for those fleeing Syria and pouring through the Balkan states are money, mobile phones, and documents. Charged mobile phones are important not simply because of their communication and geopositioning capabilities, but also because of the photographs they contain of home – often the last and only remaining images of their loved ones and their homeland as they once were – and photographed copies they have made of records or documents they need to establish their identity, to obtain status as refugees, to settle and interface with the bureaucracies of life elsewhere or eventually to return to their homeland, and to reconstruct or otherwise move on with their lives.[15] If we are rigid in our understandings about reliability, authenticity, provenance, authority and evidence as these may be applied to the future archival value of the records they carry with them on their mobile phones, or indeed to the physical papers they might have on their persons, and are unable to take into account the circumstances of displacement, we run the risk of failing these desperate people. In other words, it is possible that we, like the legal and bureaucratic systems they will have to navigate, could impose value structures and other criteria at our own threshold that

14 Michelle Caswell, *Archiving the Unspeakable: Silence, Memory, and the Photographic Record in Cambodia* (Madison, WI: University of Wisconsin Press, 2014).

15 See also Nina Porzucki, "The Things They Carried With Them: What Refugees Take on Their Journey," in *PRI The World*, http://www.pri.org/stories/2015-09-04/things-refugees-carry-them-their-journey.

potentially say that these precious items, personal records, even if they were to be offered to us for safekeeping, as evidence, and as memory texts, do not meet our own tests as records. This, of course, is one reason why many such materials in the past have found their way to community archives and other memory and documentation projects where different criteria for value often operate.

Such examples highlight key tensions that exist in how the archival field views its societal role and they lead us to ask: what business are archives in today? Is it institutional accountability and citizen rights? Is it memory and historical research? Is it national, community and personal identity? Is it human rights? In most cases it will be a combination of several or all of these, so to what extent and in which ways can the field's conceptual bases simultaneously drive principles, standards, functions and activities that address such a matrix of agendas and audiences? Canadian archival theorist Terry Cook described in 2013 the complex state of archival conceptualizations and roles as simultaneously an evolution, a progression and an overlapping in the frameworks and mindsets defining the contemporary identity of the field. Identifying four operative frameworks – juridical legacy, cultural memory, societal engagement and community archiving – he argued that the archivist has been transformed from:

> passive curator to active appraiser to societal mediator to community facilitator. The focus of archival thinking has moved from evidence to memory to identity and community, as the broader intellectual currents have changed from pre-modern to modern to post-modern to contemporary.[16]

In order to be in a position to articulate to others, in ways that move beyond the mere use of terms of art, how concepts such as the ones that have been chosen as themes for this conference are understood and used inside the archival field, we first need, therefore, to unpack their shifting

16 Terry Cook, "Evidence, Memory, Identity, and Community: Four Shifting Archival Paradigms," *Archival Science* 13 (2013). doi:10.1007/s10502-012-9180-7.

semantics with reference to the kinds of lineages and intellectual movements that Cook has laid out. Perhaps most importantly, we need to be transparent about how these lineages align with particular interests and standpoints and preclude others (and herein we can perhaps see exactly why we have these two seemingly divergent discourses that have been occurring in recent years around archival concepts).

Archival concepts were articulated as such largely in the eighteenth and nineteenth centuries, at a time when Western European establishment bureaucracies, upon and around whose practices these concepts were formally articulated, were invested in forms of governance and commerce that included colonialism, imperialism and institutionalised slavery, and at a time when many of the tenets of human rights that we see to be essential today, such as the universal right to run for office and to vote, or to participate in organised labour, or even the international acknowledgment that we all have fundamental inalienable rights as human beings, were still battles being fought. Today, as we endeavour to meet the potential and challenges of a digital era, we are also immersed in the social and political legacies and fallout of colonialism, imperialism and slavery, of the twentieth century's communist and fascist regimes, of widespread ethnic and religious conflicts, and of mass movements of populations, especially of populations displaced by oppression and war, or driven by famine and economic necessity. All of these have important records and recordkeeping dimensions, and for individuals caught up in them, there are often very personal and immediate consequences of as well as requirements for records. Is it realistic, then to expect these concepts, articulated in Western Europe in the eighteenth and nineteenth centuries; endorsed in the twentieth century through a professional corpus of manuals, standards, best practices, professional competency exams and so forth; and revalidated and re-expressed in the last three decades to meet the challenges of digital applications and legal admissibility, to support a professional, humanitarian response to the legacies of the very systems that they helped to effect?

It might be scary for the archival field to contemplate too much critique and tampering with the concepts from which the principles, practices and activities of appraisal, arrangement, description and validation of their holdings, among others are derived. But without engaging in such a discussion as a profession, this archival preoccupation with concepts can easily become an internal obstacle to, and indeed I would argue, has been used in recent years to put a brake on, more expansive, pluralistic, reflexive, humanitarian, and certainly more radical and liberatory thinking about these concepts. Moreover, despite all the benefits of close specifications in supporting the standardization of professional practices, as already mentioned, every field also needs a space to allow for emergent and expanded concepts that respond to shifting social and intellectual currents and provide remediation for the errors and extremes of the past.

Some Observations about the Nature of Concepts

Records, and the process whereby they are created, kept, disseminated and used, are the most fundamental components of archival work. The archival field has consequently spent considerable energy debating what is considered to be a "record" both in terms of form and materiality and in terms of how "official" and controlled were the circumstances of its creation. After all, everything that is created is some form of trace that is a record of something and as such, it is also some form of evidence. Nevertheless, how one approaches archival conceptualizations and practices, depends on how one construes "records" and how they might be different from non-specified forms of information and cultural objects. An illustration of this can be seen in a meeting of experts from the UK, Australia, Canada and the US[17] that was convened in Los Angeles by AERI in 2011 to discuss the possibility of developing concept-driven rather than function-based graduate archival education curricula, several overarching and inter-related concepts were identified as primary to the rationales within which the archival and broader recordkeeping field operates: accounta-

17 Kelly Besser, Wendy Duff, Joanne Evans, Jonathan Furner, Anne J. Gilliland, David Kim, Andrew J Lau, Gregory Leazer, Heather MacNeil, Joy Novak, Elizabeth Shepherd, Ramesh Srinivasan, Michael Wartenbe, Kelvin White.

bility, evidence, identity, memory, recordkeeping, records, and rights and responsibilities.[18] Some of these concepts have been articulated and defined through theorising and empirical research in more robust ways than have others and they align directly with the roles that Cook delineated four years later. In the Los Angeles meeting, participants elucidated how underpinning several of these concepts were others, including authority, authenticity and provenance that are intimately tied to archival roles in promoting accountability and trust in the creation, stewardship and disposition of records over time. Ultimately the group was not successful in doing what it set out to do because it could not get around several key problems that often arise when one tries to do any exercise in conceptual analysis or modeling. For example, how do we distinguish between core concepts and those that are more at the periphery? What is the nature of their interrelationships and can we in some way cluster them? Is evidence a core concept and if so, are authenticity, authority and provenance constituent or sub-concepts? What is the difference between a concept, a principle, a property, a process, and a condition or contingency? What are the distinctions that can or should be made between the concept of provenance, the principle of provenance and the processes and methods for establishing or tracing provenance? Likewise, what are the distinctions that can or should be made between the concept of authenticity, the processes of authentication, and the property of being authentic? Do authenticity and authority have to co-exist and be co-present for some item to be considered to be evidence? Is provenance a condition for establishing authenticity and authority? And so forth.

This intellectual exercise, therefore, while inconclusive, was extremely helpful in sharpening how the group thought and talked about these concepts and how it considered the implications of their lineage and original intent, how they were defined and configured in each of our different national recordkeeping traditions, and what were the challenges and potential conceptual expansions that had come up in each member's individual research trajectories and teaching.

18 Working Meeting on Reconceptualizing Archival Education held at the University of California, Los Angeles, 5-7 November, 2011.

Expanding Archival Concepts to Promote Human Welfare

As already mentioned, several recent propositions have been made to expand archival concepts in order to more directly support humanity in living better lives, although each inevitably raises additional questions. The following examples are drawn from my own work and that of my collaborators, Michelle Caswell and Sue McKemmish, and have emerged out of our own individual and joint engagement with community-based archiving and human rights and social justice activism, and more broadly the desire to support a more humanitarian ethos that addresses both juridical needs for, and the often unacknowledged affective aspects of, records and recordkeeping in community and individual lives. The first two examples are really less directly about the concepts themselves and more about how our professional principles stance and ethos help to get us to the desired state or to support the desired activity.

Caswell's proposed human rights-based framework[19] emphasises stances that we see repeatedly coming up in contemporary critical archival discourse, and especially in community archives discourse. In and of themselves, these stances should each be implementable and encouraged in other archival contexts. Many community-based archives, however, have been criticised by the archival field for a lack of control over content and practices that would help to establish the authority, provenance, authenticity and ultimately, in a juridical sense, the legal evidential value of the materials they hold or steward (and here we could think back to the earlier example of refugees' mobile phone contents). Of course, although they may well hold copies of official records that were in the possession of community donors, most community archives content tends to be made up of other kinds of documentary and artefactual materials that are less likely to be employed for legal evidentiary purposes. As a result, even though community archives are playing vital roles in giving voice to those who may have little or no voice or who are merely treated as subjects in official archives, they cannot replace official archives whose content is sanctioned

19 Caswell, "Toward a Survivor-centered Approach," op. cit.

through the presence of such controls and which is produced by official processes whose authority is recognised by other authorities. The question that comes up, therefore, is to what extent can Caswell's framework actually influence the conceptual bases upon which government and other archives manage the official records that they hold?

In 2015, Sue McKemmish and I, trying to address a very similar question, asked "how do we become more participatory and build bridges across communities and different types of record- and memory-keeping systems while keeping things open, dynamic and responsive?" The previous year we had addressed the moral and ethical imperative for the formation of "quite a different kind of archive"—a participatory archive that would work in the interests of those who have been wronged in order to further human rights, reconciliation and recovery:[20]

> Participatory archives acknowledge that multiple parties have rights, responsibilities, needs and perspectives with regard to the record. The archives consequently become a negotiated space in which these different communities share stewardship—they are created by, for and with multiple communities, according to and respectful of community values, practices, beliefs and needs.[21]

Our response to the question, therefore, was to propose a suite of rights in records that could serve as a platform for participatory archiving. "Rights in" and "rights to" records issues have been surfaced repeatedly by recent and ongoing research as well as in national privacy policy frameworks and rulings, inquiry and commission reports and community and personal testimonies.[22] In responding to these issues, we were immediately confronted with the need to address the power exercised by dominant, gendered and age-bound notions of singular provenance, agency and au-

20 Gilliland and McKemmish, "The Role of Participatory Archives," op. cit.; Gilliland and McKemmish, "Rights in Records," op. cit.

21 Gilliland and McKemmish, "The Role of Participatory Archives," op. cit.

22 See, for example, Katarzyna Grabska and Lyla Mehta, eds. *Forced Displacement: Why Rights Matter* New York: Palgrave Macmillan, 2008).

thority that govern so much of records creation and also archival practice. We argued that we should not just be contemplating the general liberation of the archives through digital affordances, but we should be doing so also with a specific aim to enfranchise and recognise the rights and needs of those whom archives and their principles have systematically failed, disempowered or deprivileged – such as those millions of individuals and families of refugees today fleeing countries in so many different parts of the world.

The final two propositions I want to mention directly challenge and seek to expand the current conceptual base of archivistics. Michelle Caswell and I have over the past two years articulated the paired phenomenological concepts of imagined records and archival imaginaries as a way for the field to understand the affective impact of the absence of evidence, either because it is unavailable (e.g., withheld, destroyed, lost) or was never created in the first place but nevertheless has a presence in that it is imagined, longed for, feared, acted upon and reacted to, and so forth.[23] Archival imaginaries and imagined records have wide applicability,[24] but both find especial resonances in diaspora and dispossession experiences – whether forced through conflict or famine, or inflicted through colonialisation and genocide – where personal and community memory and history have been ruptured, language and other forms of cultural expression have been lost, place has been irrevocably altered, rights have been removed, ignored or violated, and perpetrators remain unaccountable and in power.

In examining how the archival field might play a more proactive role in supporting the survival, resettlement and recovery of those displaced through violence or environmental, economic or other exigencies, and in seeking to rupture the tight coupling between archival and legal understandings of and tests for evidence, I have also suggested that the field take into account another pair of concepts, this time procedural, that often exist in parallel to imagined records and archival imaginaries, as well

23 Anne J. Gilliland. and Michelle Caswell, "Impossible Archival Imaginaries and Imagined Records," in *Archival Science* 16 (2016): 53-75. DOI: 10.1007/s10502-015-9259-z; and Michelle Caswell and Anne J. Gilliland, "False Promise and New Hope: Dead Perpetrators, Imagined Documents, and Emergent Archival Evidence," *International Journal on Human Rights* 19:5 (2015): 615-627.

24 See Gilliland and Caswell, "Impossible Archival Imaginaries," ibid.

as in complex juxtapositions with classic notions of reliable and authentic records and trusted recordkeeping. These are irregular records and regular records that are used in irregular ways, certainly sometimes for criminal purposes, but often out of exigency by tens of millions of individuals and families around the world for whom the official record is unavailable or inaccessible, has been removed from them, or because its official status or standpoint cannot support their case. The archival field has not substantially engaged with the challenges that such irregularity presents to the concepts being examined by this conference in terms of how records are created and deployed, and how bureaucracies and recordkeeping systems are circumvented or subverted during human exigency.[25] However, it also should be noted that such irregularity often presents enormous juridical and bureaucratic problems for these people as they attempt to go through asylum processes and later to interact with the bureaucracies of the countries in which they settle or bring claims against entities associated with the countries from which they fled or were expelled.

Conclusion

Archives and recordkeepers have societal and ethical responsibilities toward those individuals who are least empowered to engage with official records and recordkeeping practices or to maintain their own records. This paper has attempted to lay out some of the humanitarian directions in which the field has been challenged to go, and to ask whether the key concepts of authenticity, provenance, authority and evidence are sufficiently expansive and nuanced to address these ends. Indeed, is it possible for any central professional concept to be simultaneously sufficiently ex-

25 "This reality – that in crisis or desperation, people will act upon documentation expeditiously or emotionally, whether or not that documentation can be proved to be "truthful" or "reliable" – de-stabilizes and de-privileges classic archival understandings of trustworthiness. In its place, it insists that an expanded contextual understanding of the act itself with which the record is associated be brought to bear in any archival value judgment or prioritization; and serves as a visceral reminder that a record that has been tampered with or used for a purpose other than that for which it was created is nevertheless authentic in relation to the purpose for which it was used to achieve." Anne J. Gilliland, "Moving Past: Probing the Agency and Affect of Recordkeeping in Individual and Community Lives in Post-conflict Croatia," *Archival Science* 14:3-4 (2014): 249-274.

pansive and nuanced and still play a central and definitive role in guiding archival practice, never mind bridging between that practice and those of related professions? Recent research would suggest that records held by official archives are trusted by legal and bureaucratic systems specifically because they adhere to rigorous and familiar concepts and procedures for acquiring and preserving reliable and authentic records. It would also suggest that the contents of community archives are similarly trusted by their source communities because they operate outside such official institutions and their conceptualizations and requirements. If we take this divide into account and sum up each of the propositions reviewed in this paper, we can construct one final large, complex question that perhaps punts, but perhaps holds some of the keys to a possible way forward: Can proactive participatory approaches, entered into with transparency, respect and good faith, jointly steward the *bureaucratic and legal record* and the *human and humanitarian record* (in all its artefactual, imaginary and irregular aspects), where type of record is assessed on its own terms as authentic, authoritative co-existing, action-informing and complementary and countervailing evidence?

References

Bantin, Philip C. ed. *Building Trustworthy Digital Repositories: Theory and Implementation*. Lanham: Rowman & Littlefield, 2016.

Bushey, Jessica, Marie Demoulin, Robert McLelland. "Cloud Service Contracts: An Issue of Trust," *Canadian Journal of Information and Library Science*, 39:2 (2015): 128-153.

Caswell, Michelle. *Archiving the Unspeakable: Silence, Memory, and the Photographic Record in Cambodia*. Madison, WI: University of Wisconsin Press, 2014.

Caswell, Michelle. "Toward a Survivor-centered Approach to Records Documenting Human Rights Abuse: Lessons from Community Archives," *Archival Science* 14:3 (2014): 307-322.

Caswell, Michelle and Anne J. Gilliland. "False Promise and New Hope: Dead Perpetrators, Imagined Documents, and Emergent Archival Evidence," *International Journal on Human Rights* 19:5 (2015): 615-627.

Cook, Terry. "Evidence, Memory, Identity, and Community: Four Shifting Archival Paradigms," *Archival Science* 13 (2013): 95-120. doi:10.1007/s10502-012-9180-7.

Duranti, Luciana. "The Concepts of Reliability and Authenticity and Their Implications," *Archivaria* 39 (1995): 5-10.

Duranti, Luciana. *Diplomatics: New Uses for an Old Science*. Scarecrow Press, 1998.

Evans, Joanne, Sue McKemmish, Liz Daniels and Gavan McCarthy. "Self-determination and Archival Autonomy: Advocating Activism," *Archival Science* 16 (2016).

Gilliland, Anne J. and Sue McKemmish. "The Role of Participatory Archives in Furthering Human Rights, Reconciliation and Recovery," *Atlanti: Review for Modern Archival Theory and Practice* 24 (2014), 79-88.

Gilliland, Anne J. "A Matter of Life and Death: A Critical Examination of the Role of Official Records and Archives in Forced Displacement," *Critical Archival Studies*, special issue, Michelle Caswell, Ricardo Punzalan and T-Kay Sangwand, eds. *Journal of Critical Library and Information Studies* 2 (2017).

Gilliland, Anne J. "Archival Traditions in the Multiverse and their Importance for Researching Situations and Situating Research," Chapter 1, *Research in the Archival Multiverse*, A. J. Gilliland, A. Lau and S. McKemmish, eds. Melbourne: Monash University Press, 2016, 31-73.

Gilliland, Anne J. *Conceptualizing Twenty-first-century Archives*. Chicago, IL: Society of American Archivists, 2014.

Gilliland, Anne J. "Contemplating Co-creator Rights in Archival Description," *Knowledge Organization* 39:5 (September 2012): 340-346.

Gilliland, Anne J. "Moving Past: Probing the Agency and Affect of Recordkeeping in Individual and Community Lives in Post-conflict Croatia," *Archival Science* 14:3-4 (2014): 249-274.

Gilliland, Anne J. "Networking Records in Their Diaspora: A Reconceptualization of "Displaced Records" in a Postnational World," Chapter 11, James Lowry, ed. *Displaced Records*. London; New York: Routledge, Taylor & Francis Group, 2017, 180-196.

Gilliland, Anne J. and Michelle Caswell. "Impossible Archival Imaginaries and Imagined Records," *Archival Science* 16 (2016): 53-75. DOI: 10.1007/s10502-015-9259-z.

Gilliland, Anne J. and Andrew Flinn. "The Wonderful and Frightening World of Community Archives: What Are We Really Talking About?" Keynote address, *Nexus, Confluence, and Difference: Community Archives meets Community Informatics: Prato CIRN Conference Oct 28-30 2013*, Larry Stillman, Amalia Sabiescu, Nemanja Memarovic, eds. Melbourne: Centre for Community Networking Research, Centre for Social Informatics, Monash University, 2013.

Gilliland, Anne J. and Sue McKemmish. "The Role of Participatory Archives in Furthering Human Rights, Reconciliation and Recovery," *Atlanti: Review for Modern Archival Theory and Practice* 24 (2014): 79-88.

Gilliland Anne J. and Sue McKemmish. "Rights in Records as a Platform for Participative Archiving," Chapter 14, Richard J. Cox, Alison Langmead and Eleanor Mattern, eds. *Archival Education and Research:*

Selected Papers from the 2014 AERI Conference (Sacramento, CA: Litwin Press, 2015), 355-385.

Grabska, Katarzyna and Lyla Mehta, eds. *Forced Displacement: Why Rights Matter*. New York: Palgrave Macmillan, 2008.

Hurley, Chris. "Parallel Provenance: (1) What, If Anything, is Archival Description?" *Archives and Manuscripts* 33 (2005): 110-45.

Hurley, Chris. "Parallel Provenance: (2) When Something is *Not* Related to Everything Else." *Archives and Manuscripts* 33 (2005): 52-91.

International Council on Archives Expert Group on Archival Description. *Records in Contexts - Conceptual Model* (29 August, 2016), http://www.ica.org/en/egad-ric-conceptual-model.

International Organization for Standardization. *ISO 16363:2012 Space Data and Information Transfer Systems – Audit and Certification of Trustworthy Digital Repositories* (2012).

International research on Permanent Authentic Records in Electronic Systems (InterPARES), www.interPARES.org.

InterPARES Trust, *https://interparestrust.org/*.

Lemieux, Victoria L. ed. *Building Trust in Information: Perspectives on the Frontier of Provenance*. Cham: Springer International Publishing, 2016.

Oliver, Gillian and Ross Harvey. *Digital Curation*. Chicago, IL: American Library Association, 2016.

Porzucki, Nina. "The Things They Carried With Them: What Refugees Take on Their Journey," *PRI The World*, http://www.pri.org/stories/2015-09-04/things-refugees-carry-them-their-journey.

STVARATELJ, PROVENIJENCIJA, AUTENTIČNOST I DOKAZNA VRIJEDNOST GRADIVA I HUMANITARNA PITANJA

Ključne riječi:
arhivistika, dokazna vrijednost gradiva, humanitarna pitanja, participativno arhiviranje, ljudska prava u zapisima

Sažetak

U radu se razmatraju arhivska poimanja stvaratelja, provenijencije, autentičnosti i dokazne vrijednosti gradiva, njihova usklađenost s pravnim potrebama i zahtjevima spisovodstvenih funkcija te načini na koje suviše rigidne konstrukcije navedenih koncepata mogu ograničiti mogućnosti humanitarno orijentiranih arhivskih praksi. Arhivi i imatelji arhivskog gradiva imaju društvenu i etičku odgovornost prema pojedincima koji nisu ovlašteni i dovoljno osposobljeni za bavljenje službenim zapisima i spisovodstvenim praksama ili za čuvanje vlastitih zapisa. Suvremeni izazovi usmjerili su polje arhivistike prema humanitarnim pitanjima. Stoga se u radu predstavljaju pojedina humanitarna usmjerenja te ispituje jesu li ključni koncepti autentičnosti, provenijencije, stvaratelja i dokazne vrijednosti gradiva dostatno široki i kontekstualno osjetljivi da bi se nosili s tim pitanjima. Je li moguće da ikoji temeljni stručni koncept koji je istovremeno dostatno rastezljiv i kontekstualno osjetljiv i dalje zadrži središnju i odlučujuću ulogu u arhivskoj praksi te ujedno služi kao poveznica između te prakse i praksa povezanih struka? Suvremena istraživanja upućuju na činjenicu da zapisima u službenim arhivima vjeruju upravni i administrativni sustavi posebice stoga što se zasnivaju na strogim i poznatim konceptima i procedurama prikupljanja i čuvanja pouzdanih i autentičnih zapisa.

Istraživanja također upućuju da povjerenje u sadržaj arhiva pojedinih zajednica imaju zajednice koje su ih stvorile i koje njima upravljaju upravo zato što oni

djeluju izvan službenih ustanova i njihovih konceptualizacija i zahtjeva. Uzmemo li u obzir tu opreku te sažmemo li prijedloge izložene u ovom radu, možemo postaviti jedno složeno, donekle neizravno, pitanje koje ujedno implicira mogućnosti daljnjeg djelovanja: može li proaktivni participativni pristup, od početka kreiran transparentno, s poštovanjem i u dobroj namjeri, zajednički upravljati administrativnim i pravnim zapisima te zapisima pojedinih zajednica, primjerice onih nastalih u humanitarne svrhe (u svim njihovim izvornim, imaginarnim i nepravilnim aspektima), u kojem je vrsta zapisa procijenjena po vlastitim uvjetima kao autentična, informativna te predstavlja komplementarni i alternativni dokaz službenom narativu?

PROVENANCE
DEVELOPMENT OF A CONCEPT[*]

Giovanni Michetti
Sapienza University of Rome, Italy

Keywords:
archives, Linked Data, provenance, trust

Abstract

The Principle of Provenance is a pillar of Archival Science. In its very early stages it mostly meant not to intermingle documents from different origins. This view has been challenged in the past fifty years: archival provenance has moved from a simplistic one-to-one relationship to a multi-dimensional concept based on a network of relationships between objects, agents and functions. The digital environment has posed new and unpredictable challenges: digital objects are often aggregations of several different pieces, and it is extremely easy to mix and re-use them, which makes it difficult to trace their provenance. Cloud computing has complicated the picture further. However, new technologies help us to cope with such complexity. Resource Description Framework (RDF) and ontologies can be used to represent provenance in a granular and articulated way that was not even conceivable in the past, giving us the opportunity to review and refine established practices and concepts.

* Part of the content of this article is drawn from Giovanni Michetti. "Provenance: An Archival Perspective," in *Building Trust in Information: Perspectives on the Frontiers of Provenance*, Victoria L. Lemieux, ed. (Cham, CH: Springer International Publishing, 2016), 59-68.

Introduction

The International Council on Archives defines provenance as:

> [t]he relationships between records and the organizations or individuals that created, accumulated and/or maintained and used them in the conduct of personal or corporate activity. Provenance is also the relationship between records and the functions which generated the need of the records.[1]

In other words, archival provenance refers to the origins, custody, ownership and use of archival objects. This concept is the basis for the Principle of Provenance, a pillar of Archival Science, which prescribes that archival documents should be arranged according to their provenance in order to preserve their context, hence their meaning. This is a simplification of a complex concept that has been investigated and debated by many scholars since the nineteenth century. In its very early stages, the Principle of Provenance mostly meant not to intermingle documents from different origins: "[r]assembler les différents documents par fonds, c'est-à-dire former collection de tous les titres qui proviennent d'un corps, d'un établissement, d'une famille ou d'un individu, et disposer d'après un certain ordre les différents fonds."[2] However, maintaining the identity of a body of records as a whole is not limited to identifying its distinctness in relation to other records. Archivists soon recognized that the internal structure of such a body also shapes the identity of a fonds, and thus they established the Principle of Original Order, a corollary of the Principle of Provenance. According to this principle, records should be maintained in the same order in which they were placed by the records' creator. The underlying idea was that an archives "comes into being as the result of the activities of an

1 International Council on Archives. *ISDF: International Standard for Describing Functions* (Paris: ICA, 2007), 10.

2 Transl: "Aggregate all different records in fonds, that is, group all the documents coming from the same body, institution, family or individual, and set the different fonds according to a certain order." Charles Marie Tanneguy Comte Duchâtel, "Instructions pour la mise en ordre et le classement des archives départementales et communales," Paris le 24 avril 1841, in *Lois, Instructions et Règlements Relatifs aux Archives Départementales, Communales et Hospitalières* (Paris: H. Champion, 1884), 17.

administrative body or of an official, and […] it is always the reflection of the functions of that body or of that official."[3] In other words, provenance initially assumes a very physical connotation: it refers to a specific group of records, located somewhere in the repository, and arranged in a certain physical order. It is the real thing.

Fifty years ago such a conception was challenged by Peter Scott who, in a seminal article,[4] laid the basis for a further refinement of the Principle of Provenance. He highlighted that, in general, archives are not the result of a single creator who performs a set of specific functions. They are, rather, the outcome of a complex reality where different agents may act as creators. Functions change, merge and disappear; and the internal structure of the records is the result of recordkeeping activities that may have little relationship with the business activities of the creators. By extension, the structure of an archives may have little or no correspondence with the structure of the creating organization. This approach led to a new definition of the concept of provenance as it is now understood and accepted by the archival community — as a network of relationships between objects, agents and functions.[5]

It is interesting to note that the first edition of ISAD(G) assumes the physical interpretation, since it defines provenance as "the organization or individual that created, accumulated and/or maintained and used documents in the conduct of personal or corporate activity" — that is, provenance is an agent.[6] ISAAR(CPF) similarly defines provenance.[7] It is only later, in the second edition of ISAD(G), that provenance becomes "the relationship between records and organizations or individuals" — that is, provenance is interpreted as a relationship rather than an agent.[8] How-

3 Samuel Muller, Johan Adriaan Feith and Robert Fruin, *Manual for the Arrangement and Description of Archives*, 2nd edition, trans. Arthur H. Leavitt (Chicago: Society of American Archivists, 2003), 19.

4 Peter J. Scott, "The Record Group Concept: A Case for Abandonment," *The American Archivist* 29 (1966): 493–504.

5 Hereafter the term 'network' is used in its broader meaning as an interconnected or interrelated group of entities.

6 International Council on Archives, *ISAD(G): General International Standard Archival Description* (Ottawa: ICA, 1994), 1.

7 International Council on Archives, *ISAAR(CPF): International Standard Archival Authority Record for Corporate Bodies, Persons and Families* (Ottawa: ICA, 1996), 1.

8 International Council on Archives, *ISAD(G): General International Standard Archival Description*, 2nd edition (Ottawa: ICA, 2000), 11.

ever, the relationship is assumed to be singular whereas it will become plural in the subsequent documents published by ICA. Also, there is no mention of provenance as a connection between records and functions, a concept that will be introduced only in ISDF, as shown in the opening paragraph.

In recent years, the meaning of provenance has been investigated further, and new perspectives have been proposed:

> The similar notions of societal, parallel, and community provenance have also been advanced. They reflect an increasing awareness of the impact of various societal conditions on records creators and record creation processes at any given time and place across the records' history. […] Some archivists have broadened the concept of provenance to include the actions of archivists and users of archives as formative influences on the creation of the records.[9]

In particular, Tom Nesmith has provided a definition of provenance that, while giving rise to some issues due its very broad scope, may provide a basis for a broadened multidisciplinary perspective on provenance:

> The provenance of a given record or body of records consists of the social and technical processes of the records' inscription, transmission, contextualization, and interpretation which account for its existence, characteristics, and continuing history.[10]

In short, archival provenance is a complex concept, the sum of different factors that altogether trace archival records back to their creation and forwards through their management and use. It is, therefore, a fundamen-

9 Tom Nesmith, "Principle of Provenance," in *Encyclopedia of Archival Science*, eds. Luciana Duranti and Patricia C. Franks (Lanham, MD: Rowman & Littlefield, 2015), 286–287.

10 Tom Nesmith, "Still Fuzzy, but More Accurate: Some Thoughts on the 'Ghosts' of Archival Theory," *Archivaria* 47 (1999): 146.

tal notion for interpreting and understanding archival objects. However, new technologies have further challenged the idea of provenance, asking for its refinement and re-interpretation. The following sections will illustrate the role of provenance in archival functions and its transformation as determined by new technologies.

The role of provenance in archival functions

It is not surprising that provenance plays a major role in different archival functions, due to its multi-dimensional nature. It plays a key role in a fundamental dimension of archival objects, that is, trust associated with them. This is especially true in the digital environment, where objects tend to float in a cyberspace with little or no context, which is great for re-using, re-purposing and re-mixing activities, yet impoverishes the objects by depriving them of their connoting qualities. This is a critical issue when we consider that such qualities are – either implicitly or explicitly – the base upon which trust is created and managed. We have moved from a physical world where documentary objects are artifacts occupying some space, to a virtual environment where objects form a vaporous nebula that we can hardly fix on the traditional axes of the Euclidean space. We need a new topology, a new way to interpret the objects of our hybrid world where virtual and real mix and overlap. As Luciano Floridi has pointed out, in the digital world location and presence are decoupled. We may be digitally present in a particular corner of the infosphere, yet our physical location may be undetermined.[11] This holds true also for the objects and actions that belong to our space of real/virtual existence, including records and archival functions. It is a major disruption. We do not just create digital environments—we inhabit them, as spaces for social action, so we are getting to a point when we may wonder what the real thing is and what makes up its context, which is crucial for provenance.

11 Luciano Floridi, "Digital's Cleaving Power and Its Consequences," *Philosophy and Technology* 30 (2017): 123–125.

Trust in digital records

Provenance is a crucial factor of evaluation when assessing the credibility of records on the Internet, therefore it needs to be investigated in order to shed light on the nature and the dynamics of the relationship between records and trust. The latter is a key concept of archival discipline. However, like provenance, it is a multi-faceted and cross-domain concept:

- trust is about voluntary vulnerability, in that it is based on a voluntary reliance on someone or something that may cause harm; ergo
- trust is about risk management. In fact, risk can be defined as a deviation – either positive or negative – from the expected.[12] Since trust "falls between hope and certainty,"[13] it requires balancing confidence and control, that is, managing uncertainty, which is the essence of risk management;
- trust is a process, since the development of trust in systems as well as in people is informed by experience. Trust is built, shaped and assessed by applying known patterns to unknown situations. Therefore, trust changes over time, according to both the ever-changing factors that affect it, and people and systems' reaction to such changes;
- trust is contextual, because different systems for trust development and assessment are required for different contexts. Tools, agents, procedures, techniques and values vary according to the context; therefore,
- trust is a cultural thing. The parameters of trust in one cultural context may be very different from those of another context.[14] These parameters must be clearly identified and understood if

12 *ISO 31000:2009 Risk Management: Principles and Guidelines* (Geneva: International Organization for Standardization, 2009), 1.

13 Graham Dietz, Nicole Gillespie and Georgia T. Chao, "Unravelling the Complexities of Trust and Culture," in *Organizational Trust: A Cultural Perspective*, Mark N. K. Saunders et al., eds. (Cambridge University Press, 2010),13.

14 Donald L. Ferrin and Nicole Gillespie, "Trust Differences across National-societal Cultures: Much to do, or Much ado about Nothing?," in *Organizational Trust: A Cultural Perspective*, Mark N. K. Saunders et al., eds. (Cambridge, UK: Cambridge University Press, 2010), 42–86.

cross-cultural trust, like what is needed on the Internet, is to be achieved;

- trust is an economic asset. In general, information has become a commodity with economic value. As a matter of fact, when exchanging information we exchange something that we consider valuable. Trust is the framework that allows such value to thrive and be exchanged.[15] However, the commodification of data – which includes sale of personal information and other datasets as well as mash-ups of data, which in turn leads to creation of new data and value – is eroding trust and consequently the value of information. This is a crucial issue in the era of open data and big data.

Like provenance, trust is a complex concept, this is the reason why it is not simple to deal with it when it comes to records. In fact, records provide evidence of our actions and thoughts, and they allow us to communicate across space and time. Such communication is deeply based on trust, to the point where trust is embedded into records. Records carry tokens of trust: signatures, seals, special signs, the documentary form itself, they all convey trust, not to mention the content, including wording and phrasing. Trust is involved in the transmission process too, since we place a certain level of confidence in the channel, the medium and the transmission service, including any associated agent and technology.[16, 17, 18] The digital environment is no different, rather, it is much more complex. Digital technologies allow us to easily create, use and store documents on the Internet, where they can be de- and re-contextualized with little attention to their authenticity. Users have little control over how and where documents are stored in the Cloud, who has control and jurisdiction, who can access them, or how secure they are. In short, trust is at stake: in the digital realm we can no longer trust documents using the same approaches and

15 As Sissela Bok puts it, "[w]hatever matters to human beings, trust is the atmosphere in which it thrives." Sissela Bok, *Lying: Moral Choice in Public and Private Life* (New York, NY: Vintage Books, 1999), 31n.

16 Luciana Duranti, *Diplomatics: New Uses for an Old Science* (Lanham, MD: Scarecrow Press, 1998).

17 Heather MacNeil, *Trusting Records: Legal, Historical and Diplomatic Perspectives* (Dordrecht, NL: Kluwer Academic Publishers, 2000).

18 Geoffrey Yeo, "Trust and Context in Cyberspace," *Archives and Records: The Journal of the Archives and Records Association* 34 (2013): 214–234.

tools of the past. Therefore, provenance plays a major role here, since it is one of the crucial factors that support trust. That is why we need methods and tools – along with a solid theory – to govern provenance.

Preservation

Preservation, including digital preservation, is about keeping objects together with the context that provides meaning to them, that is, the complex network of relationships – along with the system of their meanings – in which archival objects have been created, managed and used. Provenance is highly relevant in identifying and determining such context. Consequently, it is key to determining the identity of the objects targeted for preservation, because any definition of provenance, be it narrow or broad, will address at least creation and custodial history (i.e., the chain of agents that held the materials, together with related facts and events). In addition, the provenance of digital objects is itself a digital object that requires preservation. Therefore, provenance, and provenance of provenance are fundamental aspects in any preservation model, theory and practice.[19]

Access and use

Access and preservation are two sides of the same coin. In fact, archival materials are preserved in order to make them available for use. However, "[i]n order to use a record, it must be accessible,"[20] which means that pol-

19 Significantly, the OAIS (Open Archival Information System) model – the reference model for preservation adopted worldwide – requires that any object targeted for preservation must be accompanied not only with some Representation Information providing additional, higher-level meaning to the object, but also with some Provenance Information describing the object's history (i.e., origins or source, custodial history, changes, etc.). Provenance Information is in turn a digital object—as such, it must be accompanied with some Representation Information and some Provenance Information that will document the history of the Provenance Information. Such a recursive approach creates a complex network of Information Objects that need to be managed and preserved altogether in order to provide the proper context to the objects targeted for preservation, and to support their preservation over the long term. See *ISO 14721:2012 Space Data and Information Transfer Systems: Open Archival Information System (OAIS): Reference Model* (Geneva: International Organization for Standardization, 2012).

20 Greg Kozak, "Access/Accessibility," in *Encyclopedia of Archival Science*, eds. Luciana Duranti and Patricia C. Franks (Lanham, MD: Rowman & Littlefield, 2015), 1.

icies and procedures should be designed and put in place to serve users' information needs. Provenance plays a role when accessing archival materials, since it is one of the key access points: the names of either the creator or the institution holding the archival materials are among the most common elements used in archival queries. Since provenance is more and more a complex network of relationships – if not a confused tangle – it becomes important to allow users to understand such complexity without overwhelming them with a large mass of information. Archivists are mediators, thus they are responsible for promoting access actively and providing a perspective that puts the archival materials in context. Archival representations of provenance in the form of descriptive finding aids are a major part of this perspective. Therefore, provenance imbues the mediation tools and affects access. This is why it should be investigated thoroughly in relation to users' needs.

Appraisal

Appraisal is the process of assessing the value of records for the purpose of determining the length and conditions of their preservation. According to a widespread approach known as macro-appraisal, this archival function should be based on "extensive research by archivists into institutional functionality, organizational structures and work-place cultures, record-keeping systems, information workflows, recording media and recording technologies, and into changes in all these across space and time".[21] Provenance covers several of these dimensions, once we assume that it is more than just origination, being rather a network of relationships between objects, agents and functions, so that it can be interpreted in such a broad way to cover even the social dimension.[22] As a consequence, any new understanding of the concept of provenance has a direct impact on appraisal methods and principles.

21 Terry Cook, "Macroappraisal in Theory and Practice: Origins, Characteristics, and Implementation in Canada, 1950–2000," *Archival Science* 5 (2005): 103.

22 *Vide supra.*

Arrangement and description

Arrangement and description of archival materials require identification and description of both the creators and the chain of custody of materials. When arranging, provenance is the first clue enabling archivists to trace archival materials back to their origins, identify different bodies of materials, and get to a tentative grouping. When describing, the complexity of provenance may affect the representation of the archival materials. This is indeed more true in the digital realm, where new visualization tools and information models allow for greater freedom when designing archival descriptions. At the same time, representation models affect the ways that provenance is understood and represented in archival descriptions, because they highlight certain features while hiding or obfuscating others. Moreover, materials on the Internet are not only dispersed but are also mixed and re-used to a point that it is often difficult to trace provenance. In short, provenance is a crucial dimension of any arrangement and description process. Also, with a growing number of records being created and preserved using Cloud technology, there is a need to consider how to undertake their arrangement and description in the Cloud. To this end, a research project has been set up in the broader context of the InterPARES Trust, a "multi-national, interdisciplinary research project exploring issues concerning digital records and data entrusted to the Internet,"[23] launched in 2013 and led by the University of British Columbia. The specific project, titled "Arrangement and Description in the Cloud," investigates how the Cloud environment is going to affect arrangement and description theory and practice.[24] Only a preliminary analysis of the problem has been conducted so far, yet some interesting observations have emerged from such analysis.[25]

a. Archives are beginning to implement and develop services that capture records from Cloud-based services such as providers of

23 *InterPARES Trust,* accessed June 7, 2017, https://interparestrust.org/trust.

24 The research project is led by this author.

25 The following two paragraphs are drawn with changes from Chris Prom et al., "Archival Arrangement and Description in the Cloud: A Preliminary Analysis," in *Proceedings of XXI Archival Science Colloquium, Marburg, 8 June 2016* (Marburg, DE: Archivschule, forthcoming).

email and social media services. Generally, a software application will connect to the Cloud service using whatever method the service provider specifies. In the case of social media, the capture tool connection is likely to interact with Application Programming Interfaces (APIs) that operate according to rules defined by the service provider. Using tools such as ePADD, Social Feed Manager, ArchiveSocial (itself a Cloud service), Thinkup, or the Twitter Archiving Google Sheet, a record is fixed in place by a Cloud provider such as Google, or social media services like Twitter, Instagram, Flickr, and Facebook.[26] Such tools collects vast amounts of metadata of potential value in tracking not only the origin and use of a particular tweet, but also regarding how the archivist shaped the collection. However, tweet-specific metadata may be stored in a way that makes them transparent to the other applications. For example, the Social Feed Manager stores metadata in WARC files,[27] which means that whatever provenance or other metadata exist for a tweet is kept in a JSON format as part of a WARC file. In other words, such provenance metadata is not immediately known to the database-driven parts of the application. In addition, resources that are referenced in the tweet, either as embedded or external content (e.g., images, videos and webpages), are captured in the WARC file. In theory, many types of metadata at all levels could be controlled in an archival descriptive system. However, key questions, such as which metadata to extract and ingest into the archival management system, remain to be investigated.

b. Several studies note that as technology develops, new value can be assigned to records; this is particularly true with Cloud services. For example, Instagram is used as both a "storage box" of personal photos and a space to share information about users' identity

26 EPADD, https://library.stanford.edu/projects/epadd; Social Feed Manager (SFM), http://gwu-libraries.github.io/sfm-ui/; ArchiveSocial http://archivesocial.com; ThinkUp, https://github.com/ThinkUpLLC/ThinkUp; Twitter Archiving Google Sheet (TAGS), https://tags.hawksey.info. All websites accessed June 7, 2017.

27 Web ARChive (WARC) is an ISO standard for web archiving. This format aggregates multiple digital resources into a single file together with related information. See *ISO 28500:2009 Information and Documentation: WARC File Format* (Geneva: International Organization for Standardization, 2009).

> and activities.[28] Should the archival management system capture and preserve the profile in place at the moment of creation or transmission of each record? Additional complexities arise when new people enter the picture. The collaborative nature of social media platforms encourages the creation of new records (or new representations of existing records) via linkages, embedded content and comments. "Likes," tags, and participation by others on photos adds new value to those possessions, but such metadata can easily become obscured in the interface, if not trapped in the application where it is recorded. The additional information added by others might be considered as context-of-creation metadata (in the case of collaborative environments such as Google Drive) or context-of-use metadata, such as "likes" and "shares" in a social media platform. Both forms of context suggest that archival systems will need a method to represent the role that a particular user played in modifying or adding to the core record, that is to say, the original "creation" developed by the original "author," "creator," or "collector" of a particular work.[29] Archival descriptive records might somehow catch and fix these new associations as some representation of provenance.[30]

Context is and has always been a fluid entity in time, that is, it changes as time passes by. What is new today is that context has become a fluid entity in space, that is, it changes as we look at it from a different perspective. For example, a document stored in Google Drive or a similar Cloud-storage

28 The term "storage box" is used by Odom, Sellen, Harper and Thereska to illustrate how causal users may treat networked environments as a place to make digital materials accessible across different physical places or using it as an alternative place of storage for backup purposes. See William Odom et al., "Lost in Translation: Understanding the Possession of Digital Things in the Cloud," in *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems, Austin, 2012* (New York, NY: ACM, 2012), 781–790.

29 Greg Bak and Amanda Hill, "Deseronto Dreams: Archives, Social Networking Services, and Place," *Archivaria* 79 (2015): 101–161.

30 New representations of provenance as a more complete set of information about actions taken in the origination and subsequent handling of a digital object can be represented in records complying with the requirements of the PROV Ontology. See Paolo Missier, Khalid Belhajjame and James Cheney, "The W3C PROV Family of Specifications for Modelling Provenance Metadata," in *Proceedings of the 16th International Conference on Extending Database Technology, Austin, 2012* (New York, NY: ACM, 2013), 773.

service may be represented as belonging to one folder for the original creator and a different folder for a contributor provided permission to update the document. Given the collaborative nature of these tools, it appears that in general the same document belongs to different folders according to the agent – be it an individual or a system – that interacts with the document.[31] Similarly, social media postings appear at a particular point in a stream of posts. The specific stream is produced by the interaction of object metadata with user preferences and choices, and these of course vary for different users at different times; as users comment on or annotate that record, evidence about its use accrues alongside the original post. The consequential question is whether the standards and tools available to archivists will allow them to preserve both the records and the complex relationships reflecting their creation and use, that is, their context, which represent a major part of their context. A preliminary question should be whether archivists agree that such network of relationships needs to be preserved. If so, what can be done to help them implement a cohesive set of archival services that are suitable to the Cloud-based environment in which many people live their digital lives? Should archivists stick to a static, single perspective framing data and metadata once it crosses the archival threshold, or should they adopt a more flexible approach where different perspectives may coexist? What metadata should be retained? For what purposes?

Linked Data

The most promising model for describing digital resources is RDF (Resource Description Framework).[32] Its very simple design is based on the notion of a triple, that is, a statement consisting of a subject, a predicate, and an object, describing some elemental aspects of a resource. RDF is a fundamental component of the Semantic Web architecture, since it allows

31 Please note that we are not referring to the case in which a document is assigned to different folders for records management purposes. We are referring to the fact that a specific document gets a different context according to the user that interacts with it.
32 For more information on RDF, see https://www.w3.org/RDF/.

– along with other Web technologies – to publish and interlink structured data that can support semantic queries, i.e., queries that enable the retrieval of both explicit and implicit information.[33] Data published on the Web according to this architecture are called Linked Data.[34] Ontologies complement and enhance the power of Linked Data, as they are formal specifications of a shared conceptualization, and act as a cornerstone of defining a knowledge domain. Tim Berners-Lee established four simple rules for creating Linked Data:

1. Use URIs as names for things
2. Use HTTP URIs so that people can look up those names
3. When someone looks up a URI, provide useful information, using the standards (RDF*, SPARQL)
4. Include links to other URIs so that they can discover more things.[35]

It is interesting to note that Linked Data seem to be a perfect fit for the nebulosi of data objects mentioned above: statements can be linked to other statements, which may lead to an ever-expanding set of statements taking the form of a graph. Therefore, it is not surprising that Linked Data are disseminated on the Web more and more, and both archivists and records managers are slowly following this trend, creating and distributing information in the form of Linked Data, thus changing system designs and descriptive practices. However, the archival community has not yet developed an ontology modelling and representing provenance, whereas the data science community has already created its own ontology for representing entities and relationships with respect to the origin and prov-

33 The triples describe resources, so they may be interpreted as metadata, that is, data about data. However, it is important to highlight that being metadata is not an ontological property, since there is no such thing as metadata per se. Some data are called metadata, because a special value is assigned to them – they are recognized as conveying information on some specific dimension considered as being relevant in a given context. For example, dates are usually considered metadata, because of the relevance of the temporal dimension. At the same time, dates are data, because they are usually embedded into documents, that is, they are integral part of the datum. There is no antithesis nor contradiction – everything is data. Sometimes it is called metadata to highlight its special value.

34 RDF is a data architecture, while Linked Data is a way of publishing RDF data.

35 Tim Berners-Lee, *Linked Data,* July 27, 2006, accessed June 7, 2017, https://www.w3.org/DesignIssues/LinkedData.html.

enance: the PROV ontology defines provenance as "information about entities, activities, and people involved in producing a piece of data or thing, which can be used to form assessments about its quality, reliability or trustworthiness."[36] The basic model of the PROV ontology is simple and recursive, allowing for great complexity and expressiveness. Its core concepts are Entities, Agents, and Activities (Figure 1).[37] Call them Objects, Agents and Functions, and the picture below will make perfect sense in the archival domain.[38]

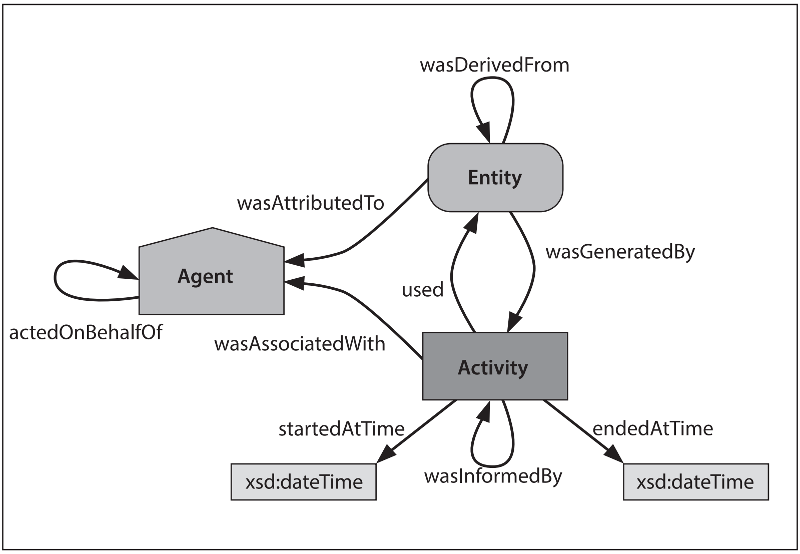


Figure 1 The basic classes and properties of the PROV ontology.

36 World Wide Web Consortium, *PROV-Overview: An Overview of the PROV Family of Documents*, W3C Working Group Note 30 April 2013, eds. Paul Groth and Luc Moreau, accessed June 7, 2017, https://www.w3.org/TR/2013/NOTE-prov-overview-20130430/.

37 The PROV ontology defines the classes Entity, Activity and Agent, and link such classes through properties, as shown in Figure 1. An Entity is a "physical, digital, conceptual, or other kind of thing with some fixed aspects; [it] may be real or imaginary." An Activity is "something that occurs over a period of time and acts upon or with entities; it may include consuming, processing, transforming, modifying, relocating, using, or generating entities." An Agent is "something that bears some form of responsibility for an activity taking place, for the existence of an entity, or for another agent's activity." See World Wide Web Consortium, *PROV-O: The PROV Ontology,* W3C Recommendation 30 April 2013, eds. Timothy Lebo, Satya Sahoo and Deborah McGuinness, accessed June 7, 2017, https://www.w3.org/TR/2013/REC-prov-o-20130430/.

38 The diagram included in ISDF is not much different. See International Council on Archives, *ISDF: International Standard for Describing Functions* (Paris: ICA, 2007), 36.

The PROV ontology focuses on lineage, that is, on data's origins and history, in order to provide a tool that may help tracing the objects back to their creation, which is a critical issue for the verification of the process used to generate the data. Provenance, particularly in the archival domain, is a broader concept that serves to identify and possibly document any input, entity, system and process that has affected data.[39] Therefore, while the PROV ontology may be a good starting point, there remains much space for discussion on how to best model archival provenance. What is quite clear though is that we are very likely to adopt the Linked Data paradigm. Therefore, it is worth highlighting some pros and cons of Linked Data, in order to understand the effects on provenance.

Linked Data: benefits

The benefits of Linked Data are quite evident: due to their characteristics (i.e., the compliance with the requirements established by Tim Berners-Lee) they are inherently shareable, extensible and re-usable.[40] Resources – be they physical or conceptual – are identified by language-agnostic URIs and connected through properties that can be referenced with a URI as well. This leads to the creation of a gigantic network: this mechanism allows anyone not only to add further descriptions (i.e., statements) that increase the size and the density of the original network of relationships; but also to establish new connections among different, separated networks. Once a connection is made, the two networks become a whole, that is, an enlarged and enriched network of relationships, which eventu-

39 Some authors distinguish between different types of Provenance, such as Why-Provenance, How-Provenance, Where-Provenance, and Workflow-Provenance. See for example James Cheney, Laura Chiticariu and Wang-Chiew Tan, "Provenance in Databases: Why, How, and Where," *Foundations and Trends in Databases* 1 (2009): 379–474; Peter Buneman, Sanjeev Khanna and Wang Chiew Tan, "Why and Where: A Characterization of Data Provenance," in *Proceedings of the 8th International Conference on Database Theory, London, 2001,* eds. Jan Van den Bussche and VictorVianu (London, UK: Springer, 2001), 316–330; Susan B. Davidson and Juliana Freire, "Provenance and Scientific Workflows: Challenges and Opportunities," in *Proceedings of the SIGMOD International Conference on Management of Data, Vancouver, 2008,* ed. Jason Tsong-Li Wang (New York, NY: ACM, 2008), 1345–1350. According to this perspective, lineage is a type of Provenance.

40 This is especially true for Linked Open Data (LOD), that is, "Linked Data which is released under an open licence, which does not impede its reuse for free." Berners-Lee, *Linked Data.*

ally leads to a Giant Global Graph, as Tim Berners-Lee called it.[41]

Linked Data in the archival domain allow for the creation of new pathways not only for exploring archival descriptions, but also for accessing the resources themselves. In fact, on the one hand Linked Data makes it possible to explore the complex web of relationships that make up and define the context in which objects are placed, and that has a fundamental value in Archival Science. In this sense, we could say that Linked Data increase the possibilities for exploring the metalevel (that is, the descriptive dimension). On the other hand, the fragmentation of information operated by Linked Data creates new and numerous points of direct access to resources. In theory, Linked Data are an unlimited source of access points.[42] This is perfectly in line with the non-specialist research practices suggested by search engines: more and more users get to the archival sources through Google and other search engines, with an approach that favors the process of disintermediation between source and user.

Linked Data: risks

Unfortunately, the granularity of Linked Data runs counter to current descriptive practices, characterized by the abundant use of free text in archival descriptions, a condition that severely limits the possibilities for interoperability and perpetuates the isolation of archival data, preventing integration with other types of data. This is an inherent limitation of the most prevalent forms of archival representation (inventories and guides in particular), which makes the adoption – rather, the exploitation – of the RDF model difficult. As a matter of fact, all archival descriptive models, including EAD, favor the narrative character of the finding aid. As noted many years ago by Elizabeth Yakel, "the concentration on the finding aid as document rather than as one of many potential representations of discrete data elements has led to problems of reusing archival data archival across the archival continuum and problems in the development of true

41 Tim Berners-Lee, *Giant Global Graph,* November 11, 2007, accessed June 7, 2017, http://dig.csail.mit.edu/breadcrumbs/node/215.

42 Even with an advanced descriptive model like EAD we must go through a tag like <controlaccess> to identify the access points.

collection management systems for archives."[43]

Trying to move a step further, the International Council on Archives initiated years ago a process of revision of its standards for archival description. This initiative has led to the publication of a new conceptual model in September 2016, clearly and explicitly driven by the RDF data architecture.[44] Therefore, this model takes into account the technological developments of recent years, and builds on the idea of graph as the ideal architecture for conveying information on the context: "Modelling description as a graph accommodates the single, fonds-based, multilevel description modelled in ISAD(G), but also enables addressing the more expansive understanding of provenance described above."[45] ICA intends to move archival description from a multi-level to a multi-dimensional approach: "The multidimensional model [...] sees the fonds existing in a broader context, in relation to other fonds. In a multidimensional approach to description, the Records and Sets of Records, their interrelations with one another, their interrelations with Agents, Functions, Activities, Mandates, etc., and each of these with one another, are represented as a network within which individual fonds are situated."[46]

This initiative has adopted the key words in current information architecture: graph, multi-dimensionality, networks of interrelations. However, this document raised some relevant objections in the archival community, with regard to different aspects.[47] In particular, InterPARES Trust, a large community of hundreds of researchers from all over the world, laid down a set of critical comments about the fairness and transparency of the process, the methodology adopted for developing the model, and the model itself. The concluding statements of the document submitted by InterPARES Trust are quite explicit:

43 Elizabeth Yakel, "Archival Representation," *Archival Science* 3 (2003): 18.

44 International Council on Archives, *Records in Contexts: A Conceptual Model for Archival Description,* Consultation Draft v0.1, September 2016, accessed June 7, 2017, http://www.ica.org/sites/default/files/RiC-CM-0.1.pdf.

45 Ibid., 10.

46 Ibid., 10.

47 Some critical comments have been posted to both the ICA mailing list devoted to this initiative (ICA-EGAD-RiC Mailing List, http://lists.village.virginia.edu/mailman/options/ica-egad-ric) and the ICA mailing list (ICA Mailing List, http://www.ica.org/en/ica-list-serv).

> In short, we find that RiC-CM is weak as a model, in that it neither defines the structures it uses (entity, property, relation) nor provides a rationale for their use. A conceptual model should identify and define the fundamental *bricks* used to build the model. […] Ultimately, the document fails to adequately address a model for discovery of archival resources, a model that accommodates multiple users and uses. […] EGAD and ICA should re-start the development process on a new, transparent and fair basis […].[48]

It will be interesting to see whether and how these concerns will be addressed in the future, and – in case – where this will lead the concept of provenance. As noted before, in the past twenty years the International Council on Archives has changed its approach to provenance a few times, interpreting it first as an agent, then as a single relationship, later as a set of relationships, and now as a multi-dimensional concept. Therefore, there is some reason to believe this is neither the perfect solution nor the final step.

Another issue to consider when dealing with Linked Data is expressed outright by Hay Kranen in his blog: "Linked data is all nice and dandy, but if your SPARQL endpoint is only up 50% of the time and it takes a minute to do a query, how do you suppose a developer builds a stable app on top of it?"[49] The post dates back to 2014, but it still holds true: keeping an endpoint up can be challenging. In a comment to the same post, Marcus Smith noted: "It's almost become an in-joke that six simultaneous users of a SPARQL endpoint constitutes a DDOS attack." In fairness, it should be recognized that endpoints and triple-store technologies are young, so it is likely that the situation will improve in the course of time.

The fact that the Semantic Web technologies are rather difficult to implement and require high skills is another issue to consider when dealing

48 InterPARES Trust, *Comments on "Records in Context"*, December 10, 2016, https://interparestrustblog.files.wordpress.com/2016/12/interparestrust_commentsonric_final2.pdf.

49 Hay Kranen, "Linked Data and the Semantic Web: GLAM's betting on the wrong horse?," *Hay Kranen's Blog*, 19 May 2014, https://www.haykranen.nl/2014/05/19/linked-data-and-the-semantic-web-glams-betting-on-the-wrong-horse/.

with Linked Data. However, this too is a problem related to technologies that are still not completely mature: probably it still needs some time before both technologies and skills become less esoteric.

Most of all, the fundamental problem of Linked Data lies in their very structure. The critical problem is the graph. As Bowker and Star note, "[e]ach standard and each category valorizes some point of view and silences another. This is not inherently a bad thing — indeed it is inescapable. But it is an ethical choice, and as such it is dangerous — not bad, but dangerous."[50] We need to understand the meanings and biases hidden in our professional tools, practices and theories. "Recognizing the presence of an underlying paradigm and understanding the values it conveys is not difficult when we deal with concepts, principles and categories, while it may be tricky when we deal with technical, apparently neutral standards. In fact, different technologies may rely on different philosophies."[51] So far, archivists and records managers have focused on the documentary object as a whole. RDF and Linked Data are almost a Copernican revolution, because they rely on information atoms that – in theory – can be aggregated and manipulated at will. This is the perfect solution for those like Greg Bak who advocate an item-level thinking.[52] However, the adoption of XML, RDF, Linked Open Data and other technologies is more than a technical option: it is rather the choice of a specific knowledge paradigm, not at all neutral. In the case of Linked Data, the graph is not only the symbolic representation of the network of relationships among the entities that make up the archival description. It is also the form taken by data, the structure that houses the descriptions, the container that gives shape to our vision of the world. To paraphrase Bowker and Star, there is nothing wrong with that. However, we need to understand the profound significance of this approach.

50 Geoffrey C. Bowker and Susan Leigh Star, *Sorting Things Out: Classification and Its Consequences* (Cambridge, MA: MIT Press, 2000), 5–6.

51 Giovanni Michetti, "Unneutrality in Archival Standards and Processes," in *Re:inventing Information Science in the Networked Society: Proceedings of the 14th International Symposium on Information Science (ISI 2015), Zadar, 2015,* eds. Franjo Pehar, Christian Schlögl and Christian Wolff (Glückstadt, DE: Verlag Werner Hülsbusch, 2015), 155.

52 Greg Bak, "Continuous Classification: Capturing Dynamic Relationships among Information Resources," *Archival Science* 12 (2012): 287–318.

The graph offers many advantages, but its strength – that is, the potential to create a network of connections that can be expanded indefinitely – can prove to be a limit. For example, if we consider EAD, it is evident that its limit resides in its design, that is, in thinking and designing an archival description as a document. As a matter of fact EAD provides a digital replica of the paper object. However, it is also true that this approach has still some reasons, when we recognize that archival description is an autonomous work. In fact, in addition to practical and operational purposes, archival description has also a fundamental function of mediation between sources and users, and supports the authenticity of the sources. In a graph, it can be difficult to recognize the boundaries of a given archival description in a graph. With Linked Data, Anyone can say Anything about Anything:[53] once we accept this so-called principle of the triple A, links explode – that's the beauty of Linked Data, boundaries disappear and users can access directly from anywhere in the graph. In a sense, this is a profound form of disintermediation. This is not a criticism of Linked Data: the graph paradigm is indeed a promising data architecture. This is rather an exploration of the possible limits and dangers of this paradigm. In short, archivists should investigate this transformation process that is slowly moving archival description in a direction that leads to bibliographic description: high fragmentation of information, and reduction of the narrative dimension.

Finally, it should be noted that the effects of the principle of triple A are multiplied when added to the Open World Assumption (OWA). Roughly speaking, this assumption states that that the absence of a statement does not imply a declaration on the absence (for example, the absence of date of birth does not mean that the person is not born).[54] Under these conditions, what value should be attributed to the statements (i.e., the tri-

53 "To facilitate operation at Internet scale, RDF is an open-world framework that allows anyone to say anything about anything. In general, it is not assumed that all information about any topic is available. A consequence of this is that RDF cannot prevent anyone from making nonsensical or inconsistent assertions, and applications that build upon RDF must find ways to deal with conflicting sources of information." World Wide Web Consortium, *Resource Description Framework (RDF): Concepts and Abstract Data Model*, W3C Working Draft 29 August 2002, eds. Graham Klyne and Jeremy Carroll, accessed June 7, 2017, https://www.w3.org/TR/2002/WD-rdf-concepts-20020829/#xtocid48014.

54 The Open World Assumption codifies the informal notion that in general no single agent or observer has complete knowledge. Not surprisingly, the Semantic Web makes the Open World Assumption.

ples)? The question is not trivial and indeed takes us back to issues such as source of authority and technical expertise, which have a deep connection with provenance and thus should be taken into account when designing new models for archival description. After all, this brings us back to the trust issue that Tim Berner-Lee already identified at the top of the Semantic Web stack.[55]

Conclusions

As already stated and discussed, the Principle of Provenance is a pillar of Archival Science, originally intended to prevent the intermingling of documents from different origins, in order to maintain the identity of a body of records. Peter Scott challenged such a view. As a consequence, provenance in the archival domain moved from a simplistic ono-to-one relationship to a multi-dimensional approach, and started being understood as a network of relationships between objects, agents and functions. Conceptual debate pushed the boundaries of provenance further: the established orthodoxies cracked under the weight of societal, parallel and community provenance. The digital environment and new technologies have presented unpredictable challenges to the concept of provenance: not only are digital objects often the result of an aggregation of several different pieces, but it also is extremely easy to mix and re-use them, to a point where it may be very difficult to trace their provenance. Cloud Computing has complicated the picture further, due to the little control that it is possible to exercise over the Cloud service providers and their procedures. As a result, the archival functions are compromised, since objects get their meaning from their context, and provenance plays a major role in identifying and determining such context: whenever provenance is flawed, so is context, hence the overall meaning of an object. Moreover, any lack of control over provenance determines uncertainty, which in turn affects trust in digital objects, thus hindering the implementation of the

55 Tim Berners-Lee, *Semantic Web on XML,* slides, 2000, https://www.w3.org/2000/Talks/1206-xml2k-tbl/slide1-0.html.

top level of the Semantic Web stack designed by Tim Berners-Lee.

However, new technologies provide a solution to cope with such complexity. Resource Description Framework (RDF) and ontologies can be used to represent provenance through new standards and models in a granular and articulated way that was not conceivable before the advent of computers. Provenance is slowly taking the form of a network of triples, that is, a complex set of interrelated statements that is apparently distant from the original Principle of Provenance, yet it is rooted in that idea. Therefore, the digital environment is indeed a source of new problems, but it is also an opportunity to review and refine established practices and concepts. Probably technology is not the hardest issue. The major challenge is a change of mindset, that is, moving from a Ctrl-c Ctrl-v attitude, a trivial operation "where much provenance gets lost,"[56] to a more responsible approach that could be supported by and embedded into system design. After all, there is already Privacy by Design, Quality by Design, Security by Design, and so on — the time has come for Provenance by Design.

56 Peter Buneman and Susan B. Davidson, *Data Provenance: The Foundation of Data Quality*, 2010, https://www.sei.cmu.edu/measurement/research/upload/Davidson.pdf.

References

Bak, Greg, and Amanda Hill. "Deseronto Dreams: Archives, Social Networking Services, and Place." *Archivaria* 79 (2015): 1–26.

Bak, Greg. "Continuous Classification: Capturing Dynamic Relationships among Information Resources." *Archival Science* 12 (2012): 287–318.

Berners-Lee, Tim. *Linked Data*, July 27, 2006. Accessed June 7, 2017. https://www.w3.org/DesignIssues/LinkedData.html.

Berners-Lee, Tim. *Giant Global Graph*, November 11, 2007. Accessed June 7, 2017. http://dig.csail.mit.edu/breadcrumbs/node/215.

Berners-Lee, Tim. *Semantic Web on XML,* slides, 2000. https://www.w3.org/2000/Talks/1206-xml2k-tbl/slide1-0.html.

Bok, Sissela. *Lying: Moral Choice in Public and Private Life*. New York, NY: Vintage Books, 1999.

Buneman, Peter, Sanjeev Khanna and Wang Chiew Tan. "Why and Where: A Characterization of Data Provenance." In *Proceedings of the 8th International Conference on Database Theory, London, 2001,* edited by Jan Van den Bussche and VictorVianu, 316–330. London, UK: Springer, 2001.

Buneman, Peter, and Susan B. Davidson. *Data Provenance: The Foundation of Data Quality*, September 1, 2010. Accessed June 7, 2017. https://www.sei.cmu.edu/measurement/research/upload/Davidson.pdf.

Cheney, James, Laura Chiticariu and Wang-Chiew Tan. "Provenance in Databases: Why, How, and Where." *Foundations and Trends in Databases* 1 (2009): 379–474.

Cook, Terry. "Macroappraisal in Theory and Practice: Origins, Characteristics, and Implementation in Canada, 1950–2000." *Archival Science* 5 (2005): 101–161.

Davidson, Susan B. and Juliana Freire. "Provenance and Scientific Workflows: Challenges and Opportunities." In *Proceedings of the SIGMOD International Conference on Management of Data, Vancouver,* *2008*, edited by Jason Tsong-Li Wang, 1345–1350. New York, NY: ACM, 2008.

Dietz, Graham, Nicole Gillespie and Georgia T. Chao. "Unravelling the Complexities of Trust and Culture." In *Organizational Trust: A Cultural Perspective*, edited by Mark N. K. Saunders, Denise Skinner, Graham Dietz, Nicole Gillespie and Roy J. Lewicki, 3–41. Cambridge, UK: Cambridge University Press, 2010.

Duchâtel, Comte Charles Marie Tanneguy. "Instructions pour la mise en ordre et le classement des archives départementales et communales," Paris le 24 avril 1841. In *Lois, Instructions et Règlements Relatifs aux Archives Départementales, Communales et Hospitalières*. Paris: H. Champion, 1884.

Duranti, Luciana. *Diplomatics: New Uses for an Old Science*. Lanham, MD: Scarecrow Press, 1998.

Ferrin, Donald L. and Nicole Gillespie. "Trust Differences Across National-societal Cultures: Much to Do, or Much Ado about Nothing?." In *Organizational Trust: A Cultural Perspective*, edited by Mark N. K. Saunders, Denise Skinner, Graham Dietz, Nicole Gillespie and Roy J. Lewicki, 42–86. Cambridge, UK: Cambridge University Press, 2010.

Floridi, Luciano. "Digital's Cleaving Power and Its Consequences." *Philosophy and Technology* 30 (2017): 123–129.

International Council on Archives. *ISAAR(CPF): International Standard Archival Authority Record for Corporate Bodies, Persons and Families*. Ottawa: ICA, 1996.

International Council on Archives. *ISAD(G): General International Standard Archival Description.* Ottawa: ICA, 1994.

International Council on Archives. *ISAD(G): General International Standard Archival Description*, 2nd edition. Ottawa: ICA, 2000.

International Council on Archives. *ISDF: International Standard for Describing Functions*. Paris: ICA, 2007.

International Council on Archives. *Records in Contexts: A Conceptual Model for Archival Description,* Consultation Draft v0.1, September 2016. Accessed June 7, 2017. http://www.ica.org/sites/default/files/RiC-CM-0.1.pdf.

InterPARES Trust. *Comments on "Records in Context"*, December 10, 2016. https://interparestrustblog.files.wordpress.com/2016/12/interparestrust_commentsonric_final2.pdf.

ISO 14721:2012 Space Data and Information Transfer Systems: Open Archival Information System (OAIS): Reference Model. Geneva: International Organization for Standardization, 2012.

ISO 28500:2009 Information and Documentation: WARC File Format. Geneva: International Organization for Standardization, 2009.

ISO 31000:2009 Risk management: Principles and Guidelines. Geneva: International Organization for Standardization, 2009.

Kozak, Greg. "Access/Accessibility." In *Encyclopedia of Archival Science*, edited by Luciana Duranti and Patricia C. Franks, 1–3. Lanham, MD: Rowman & Littlefield, 2015.

MacNeil, Heather. *Trusting Records: Legal, Historical and Diplomatic Perspectives*. Dordrecht, NL: Kluwer Academic Publishers, 2000.

Michetti, Giovanni. "Provenance: An Archival Perspective." In *Building Trust in Information: Perspectives on the Frontiers of Provenance*, edited by Victoria L. Lemieux, 59–68. Cham, CH: Springer International Publishing, 2016.

Michetti, Giovanni. "Unneutrality in Archival Standards and Processes." In *Re:inventing Information Science in the Networked Society: Proceedings of the 14th International Symposium on Information Science (ISI 2015), Zadar, 2015,* edited by Franjo Pehar, Christian Schlögl and Christian Wolff, 144–159. Glückstadt, DE: Verlag Werner Hülsbusch, 2015.

Missier, Paolo, Khalid Belhajjame and James Cheney. "The W3C PROV Family of Specifications for Modelling Provenance Metadata." In *Proceedings of the 16th International Conference on Extending Database Technology, Austin, 2012,* 773–776. New York, NY: ACM, 2013.

Muller, Samuel, Johan Adriaan Feith and Robert Fruin. *Manual for the Arrangement and Description of Archives*, 2nd edition. Translated by Arthur H. Leavitt. Chicago: Society of American Archivists, 2003.

Nesmith, Tom. "Principle of Provenance." In *Encyclopedia of Archival Science*, edited by Luciana Duranti and Patricia C. Franks, 284–288. Lanham, MD: Rowman & Littlefield, 2015.

Nesmith, Tom. “Still Fuzzy, but More Accurate: Some Thoughts on the ‘Ghosts’ of Archival Theory.” *Archivaria* 47 (1999): 136–150.

Odom, William, Abigail Sellen, Richard Harper and Thereska Eno. “Lost in Translation: Understanding the Possession of Digital Things in the Cloud.” In *Proceedings of the SIGCHI Conference on Human Factors in Computing* Systems, Austin, 2012, 781–790. New York, NY: ACM, 2012.

Prom, Christopher J., Giovanni Michetti, Katherine Timms, Andrea Tarnawsky and Richard Pearce-Moses. “Archival Arrangement and Description in the Cloud: A Preliminary Analysis.” In *Proceedings of XXI Archival Science Colloquium: Marburg 8 June 2016.* Marburg, DE: Archivschule, forthcoming.

Scott, Peter J. “The Record Group Concept: A Case for Abandonment.” *The American Archivist* 29 (1966): 493–504.

World Wide Web Consortium. *PROV-O: The PROV Ontology,* W3C Recommendation 30 April 2013, edited by Timothy Lebo, Satya Sahoo and Deborah McGuinness. Accessed June 7, 2017. https://www.w3.org/TR/2013/REC-prov-o-20130430/.

World Wide Web Consortium. *PROV-Overview: An Overview of the PROV Family of Documents*, W3C Working Group Note 30 April 2013, edited by Paul Groth and Luc Moreau. Accessed June 7, 2017. https://www.w3.org/TR/2013/NOTE-prov-overview-20130430/.

World Wide Web Consortium. *Resource Description Framework (RDF): Concepts and Abstract Data Model*, W3C Working Draft 29 August 2002, edited by Graham Klyne and Jeremy Carroll. Accessed June 7, 2017. https://www.w3.org/TR/2002/WD-rdf-concepts-20020829/#xtocid48014.

Yakel, Elizabeth. “Archival Representation.” *Archival Science* 3 (2003): 1–25.

Yeo, Geoffrey. “Trust and Context in Cyberspace.” *Archives and Records: The Journal of the Archives and Records Association* 34 (2013): 214–234.

Websites accessed June 7, 2017

ArchiveSocial. http://archivesocial.com.
EPADD. https://library.stanford.edu/projects/epadd.
ICA Mailing List. http://www.ica.org/en/ica-list-serv.
ICA-EGAD-RiC Mailing List. http://lists.village.virginia.edu/mailman/options/ica-egad-ric.
InterPARES Trust. https://interparestrust.org/trust.
Resource Description Framework (RDF). https://www.w3.org/RDF/.
Social Feed Manager (SFM). http://gwu-libraries.github.io/sfm-ui/.
ThinkUp. https://github.com/ThinkUpLLC/ThinkUp.
Twitter Archiving Google Sheet (TAGS). https://tags.hawksey.info.

PROVENIJENCIJA
RAZVOJ KONCEPTA

Ključne riječi:
archivi, povezani podaci, provenijencija, povjerenje

Sažetak

Načelo provenijencije stup je arhivske znanosti. U svojim ranim stadijima to je uglavnom značilo da se ne miješaju dokumenti iz različitih izvora. To je stajalište propitivano u proteklih pedeset godina: arhivska provenijencija razvila se od jednostavnog odnosa jedan naprama jedan do višedimenzionalnog koncepta temeljenog na mreži odnosa između objekata, agenata i funkcija. Digitalno okruženje postavilo je nove i nepredvidive izazove: digitalni objekti često su združivanja različitih dijelova, a iznimno ih je lako miješati i ponovno koristiti, što otežava praćenje njihove provenijencije. Računalstvo u oblaku učinilo je situaciju još složenijom. Međutim, nove tehnologije pomažu nam da se nosimo s takvom složenošću. Opći okvir za opisivanje resursa (Resource Description Framework, RDF) i ontologije mogu se upotrijebiti za prikazivanje podrijetla na granularni i artikulirani način koji se u prošlosti nije mogao ni zamisliti, što nam daje mogućnost preispitivanja i dorade utvrđenih praksi i koncepata.

II

Authority and Authenticity

DESCRIPTION OF NEWLY DISCOVERED GLAGOLITIC MANUSCRIPTS

Milan Mihaljević
Old Church Slavonic Institute, Zagreb, Croatia

Keywords:
Croatian-Glagolitic manuscripts, Glagolitic fragments, description of newly discovered manuscripts

Abstract

This paper answers the question, what is to be done after the discovery of new Glagolitic manuscripts. The first thing after finding a manuscript is its registration and protection. The next step is its description. The description of newly discovered manuscripts has three main goals: 1. identification, 2. dating, and 3. locating. For identification a precise description of the outer appearance of the manuscript as well as the identification of its content are needed. Dating and locating, if not explicitly given in the manuscript, require knowledge of different palaeographic and linguistic data. Palaeographic data are generally more important for dating than are the language facts, while the opposite holds for locating. The last step is the comparison of the new manuscript with other, already known and described manuscripts, in order to determine whether it once belonged to the same book as any of them. The author presents the criteria for dating and locating Croatian-Glagolitic manuscripts and illustrates the whole procedure with concrete examples of Glagolitic fragments discovered in the last twenty years.

Introduction

This paper answers the questions: what should we do (or what shouldn't we do) and how should we do it, if we find a new Glagolitic manuscript written on parchment. It is not very probable that we will find a whole hand-written codex, but there is a good chance of finding small fragments, usually in book bindings. For example, in Figure 1 you can see one fragment of a Croato-Glagolitic breviary, which was recently discovered in a book binding in the Regional Archive Klagenfurt (Austria).[1]

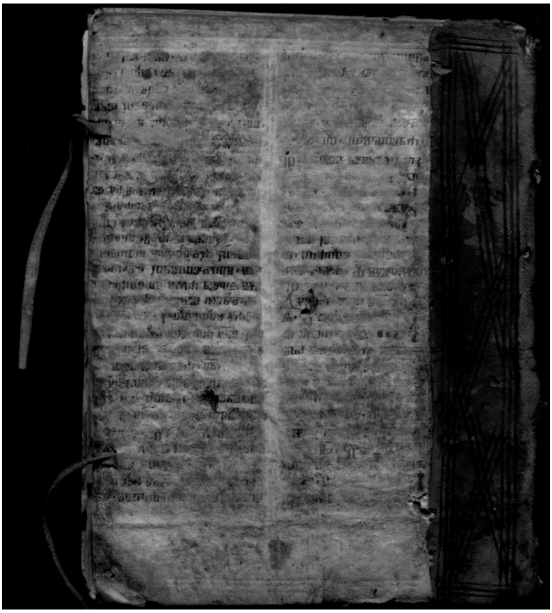


Figure 1 The newly discovered *Klagenfurt Breviary fragment*, 14th century

Therefore, I will limit my discussion to newly found Glagolitic fragments. Usually, the discovery of such fragments is due to chance, as was

1 In the meantime the fragment was taken out from the binding of the codex *KLA, Arnoldstein, Hs 47*, protected and stored in the Archive under the call number *GV-Hs 12/69*. Its description and text will be published in the journal *Carinthia*. I would like to thank the Regional Archive Klagenfurt for allowing me to publish this picture.

the case with our fragment from Klagenfurt. Quite exceptionally, the discovery could be the result of a systematic search launched in monastery libraries or parish archives. Such was the case with fragments discovered by Anica Vlašić-Anić, who had systematically searched through libraries in Capuchin monasteries in Varaždin, Rijeka and Karlobag looking for Glagolitic manuscripts.[2]

Registration and Protection

The first thing that should be done after finding a fragment, or a codex, is to register and protect it. If it is possible, the fragment should be taken out of the binding. Here a couple of warnings are in order. First, do not do it yourself if you are not a professional, because you could cause irreparable damage to the fragment. Bring the book with the fragment to an institution – usually an archive or (national) library – which has an adequately equipped laboratory and can do it professionally. The experts from those institutions will not only take the fragment out of the binding, but also restore and preserve it and most probably protect it by putting it in a box or a folder. Second, do not forget to note the circumstances of the find, which includes all relevant data about the book in which the fragment has been found, such as: the title, the year of publication, the type of binding, the position of the fragment in the binding, the call number of the book (if there is one), and so forth. Third, do not moisten the fragment with water or any other liquid. It is known that old manuscripts have higher readability when they are wet. So, if you can read the Glagolitic script, I suggest you to go to the laboratory and try to read the text of the fragment while it is still wet from the conservation chemicals. In this way you will be able to

2 See Anica Vlašić-Anić, "Glagoljica u knjižnicima kapucinskih samostana," in *Glagoljica i hrvatski glagolizam*, edited by Marija-Ana Dürrigl, Milan Mihaljević and Franjo Velčić (Zagreb: Staroslavenski institute; Krk: Krčka biskupija, 2004.), 341-354; Anica Vlašić-Anić, "Najnovija otkrića glagoljice u knjižnici riječkoga Kapucinskoga samostana Gospe Lurdske," in *400. godina kapucina u Hrvatskoj: Rijeka 1610.-2010.*, edited by Goran Crnković (Rijeka: Matica hrvatska, Ogranak u Rijeci, 2010.), 20; Anica Vlašić-Anić, "Najnovija otkrića glagoljice u biblioteci Kapucinskoga samostana u Karlobagu," in *Franjevci kapucini u Karlobagu*, edited by Anto Barišić, 215-250 (Zagreb; Karlobag: Hrvatska kapucinska provincija sv. Leopolda Bogdana Mandića, Kršćanska sadašnjost, Kapucinski samostan sv. Josipa u Karlobagu, Općina Karlobag, 2014.).

read even the text parts which would later be unreadable. If you moisten the fragment with water, you'll leave permanent spots on it, and it will be later much harder, if not totally impossible, for other people to read.

After the restoration and protection, the fragment is usually returned to the owner, i.e., to the monastery, the parish office, the library, the archive or any other institution in which it was discovered. The Old Church Slavonic Institute (Staroslavenski institut) in Zagreb collects data on all Glagolitic manuscripts in the world. Therefore, it is recommended to send the information about the newly discovered fragment, as well as its photographs, to the Institute.[3] The Institute has a digital data base *Izvori Staroslavenskog instituta*, which contains essential information about almost all Glagolitic manuscripts as well as photographs of a great number of them. Unfortunately, the database cannot be accessed online since the photographs of many manuscripts are given to the Institute only for internal use, and cannot be published on the Internet without the owner's permission.

Description

The next step is the description of the newly discovered manuscript. The description has three main goals: 1. identification, 2. dating and 3. locating. I will illustrate all three steps with data about fragments which I have described in the last twenty years, either alone or together with other experts.

Identification

For identification the precise description of the outer appearance of the manuscript as well as the identification of its content are needed. The purpose of identification is that anybody could identify the manuscript as the one you have described. Therefore, in your description you have to give the following data: dimensions of the fragment, damage (size and position on

3 You can send the information and photographs to the following address: info@stin.hr.

the folio), number of columns and their dimensions, number of rows in a column, dimensions of margins, size and colour of letters, ornaments, etc. Let us illustrate this with a concrete manuscript. I will take as an example the Breviary fragment from Novo Mesto which is shown in Figure 2.[4]

Figure 2 The Breviary fragment from Novo Mesto, 15th century

The fragment is a 34.5 cm high and 26 cm wide parchment folio. The missing part at the bottom (in the middle) is 11.3 cm high and 4 cm wide. 1.5 cm from the upper edge there is a hole which is 2.5 cm deep. On top it is 4 cm wide, at the bottom only 0.5 cm and on the bend 1.5 cm. The text is written in two columns which are 8 cm wide and contain 36 rows each. The outer margin is 3.5 and the inner margin 4 cm wide. Small letters are 0.3 cm and capital letters 0.4 or 0.5 cm high. Capital letters are written in

4 The fragment has been described and published in Milan Mihaljević, "Fragment hrvatskoglagoljskoga brevijara iz Novoga Mesta," in *Knjige poštujući, knjigama poštovan. Zbornik Josipu Bratuliću o 70. rođendanu*, edited by Davor Dukić and Mateo Žagar (Zagreb: Matica hrvatska, 2010), 211-226.

black and then filled with red, while the rubrics are written in red. The interspace between the columns is 1 cm wide. The bigger initial V is the height of 9 rows. It is written in red and reinforced by blue. Its body consists of a braid (of two interwoven ribbons) with palmettes and semipalmettes at the ends and it is ornamented with small pearls and shoots. The smaller initial S is the height of only 2 rows.

The content of the fragments is sometimes relatively easy to determine. For example, in the breviary fragment from Rijeka, shown in Figure 3, it was easy to identify the text as a fragment of the Biblical book of *Proverbs*. The recto side of the fragment contains verses 11-19 of the first chapter (Pr 1,11-19), and the verso side verses 21-18 of the same chapter (Pr 1,21-28).[5]

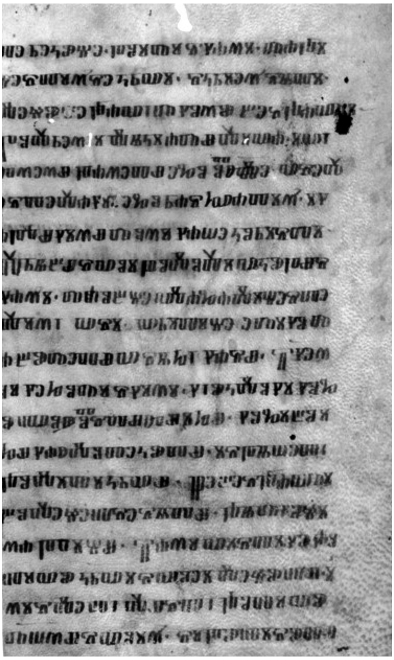


FIGURE 3 The fragment of *Proverbs* from Rijeka, 13th century

5 The fragment has been described and published in Milan Mihaljević and Anica Vlašić-Anić, "Novootkriveni glagoljski fragmenti u riječkoj kapucinskoj knjižnici," in *Sprache und Leben der frühmittelalterlichen Slaven*, edited by Elena Stadnik-Holzer and Georg Holzer (Frankfurt am Main: Peter Lang Verlag, 2010), 95-124.

FIGURE 4 The breviary fragment from Rijeka, end of the 13th century

Sometimes it is possible to determine the content only partially, for example in the second fragment from Rijeka, shown in Figure 4, it was possible to identify the text only as a fragment of a breviary.[6]

Because of illegibility, it is sometimes very hard (if not impossible) to figure out the content. For example, it took me almost five years to determine the content of the front page of the *Pazin fragment E* from the beginning of the 14th century, which is shown in Figure 5. Neither Nazor[7] nor Mihaljević and Vince[8] could decipher the text on this page,[9] although it was clear from the content of the other side that it has to be a part of the apocryphal *Acts of Andrew and Matthew in the city of cannibals*, but it couldn't be estimated whether it was located before or after the text on the other side.

6 Cf. also Mihaljević; Vlašić-Anić, "Novootkriveni glagoljski fragmenti u riječkoj kapucinskoj knjižnici".

7 Anica Nazor, "Još glagoljskih *Pazinskih fragmenata* iz početka XIV. stoljeća," *Slovo* 60 (2010): 575-608.

8 Milan Mihaljević and Jasna Vince, *Jezik hrvatskoglagoljskih Pazinskih fragmenata* (Zagreb; Pazin: Hrvatska sveučilišna naklada, Državni arhiv u Pazinu, Staroslavenski institut, 2012.).

9 Nazor wrote: "Prednja strana premazana je smeđe-zelenom bojom i nečitljiva (označili smo je kao a i b)." (The front side is coated all over by brown and green colours and unreadable (we mark it as a and b) in Nazor, "Još glagoljskih *Pazinskih fragmenata* iz početka XIV. stoljeća".

In the summer of 2015 I had finally succeeded in identifying the word *poroda* 'paradise', a so-called Preslavism which is very rare in Croatian-Glagolitic texts, which enabled me to read and reconstruct almost the whole text of this page in a very short time. It turned out that it is the text of the 15th chapter of the *Acts of Andrew and Matthew in the city of cannibals*, which confirmed Anica Nazor's assumption that this side is a front (recto) side of the folio, since the other side contains the text of the chapters 16-18.[10]

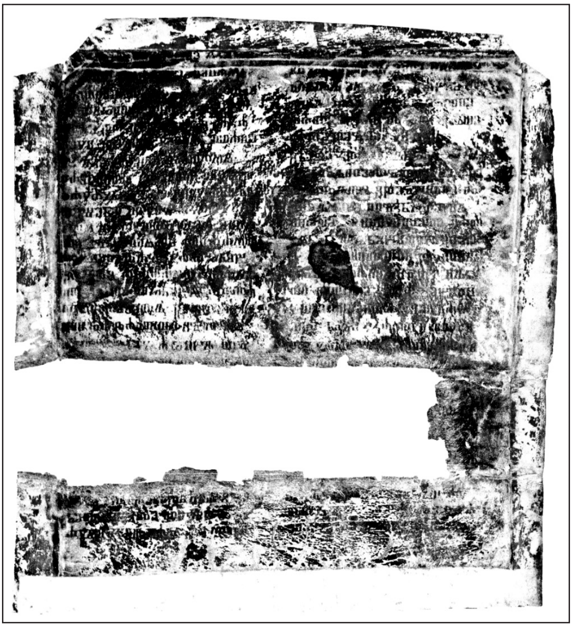


Figure 5 The Pazin fragment E, beginning of the 14th century

10 The text has been published in Milan Mihaljević, "Prednja strana hrvatskoglagoljskoga *Pazinskog fragmenta E*," in *Zbornik vo čest na prof. d-r. Radmila Ugrinova-Skalovska po povod devedesetgodišninata ot rag'anjeto*, edited by Emilija Crvenkovska (Skopje: Filološki fakultet "Blaže Koneski", 2016), 139-148.

Dating

Dating and locating, if not explicitly given in the manuscript, require knowledge of different palaeographic and linguistic data. Palaeographic data are generally more important for dating than language, while the opposite holds for locating. The reason is that, due to older protographs, the text can reflect a language stage that is older than the one which is characteristic for the time in which the preserved text had been copied. Some of the palaeographic factors that are relevant for dating, are: 1. the inventory and the functions of letters, 2. different shapes of the same letter, 3. ligatures, 4. the distribution of blanks in the text, etc.

The first point can be illustrated with the so-called *jer* signs: () (= key shaped *jer* sign), (*štapić* = short stick), (apostrophe). The first sign appeared only at the end of the 13th century.[11] After the end of the 14th century *štapić* is a mechanical sign of the end of a word ending in a consonant, while there is no regularity in the use of the apostrophe. In the 13th century manuscripts all three signs alternate. At the end of words ending in a consonant all three signs alternate freely while within the word only the first two signs occur. The closer the manuscript is to the beginning of the century, the greater the number of key shaped *jer* signs. At the end of the 13th century strong *jers* began to be replaced by the vowel *a*, which means that the first sign in the middle of the word was, from that time, most often replaced by the letter .

I will illustrate the second point with two examples. The first is the letter *jat*. In manuscripts and inscriptions from the 11th century it has a triangular shape with a sharp top (). In the 12th century and at the beginning of the 13th century the top was cut down, and the letter had a trapezoid shape with an unbroken right end. After the middle of the 13th century the letter appears only in a shape with a broken right end ().[12] The second example is the shape of the letter C. The older form of this letter with a level bottom occurs until the middle of the 14th century, but the younger variant with the sharp bottom () started to appear already in the second half of the

11 Vjekoslav Štefanić, *Glagoljski rukopisi Jugoslavenske akademije: I. dio* (Zagreb: JAZU, 1969.), 12.
12 Branko Fučić, *Glagoljski natpisi* (Zagreb: JAZU, 1982), 14.

13th century.[13] Therefore, at the end of the 13th and in the first half of the 14th centuries both forms coexist. Before that only the older form existed, and after that only the younger form existed.

In the so-called transitional period of the Croatian Glagolitism, which means until the beginning of the 14th century, the number of ligatures, as well as their inventory (the number of combinations), is smaller than in the later period. There appeared only adequate ligatures, i.e., ligatures in which merged letters had a common part, which were usually limited to two members (two merged letters). After that, the number of ligatures and the number of combinations increase with time, so that in the 15th century we have ligatures which consist of two to five members and which can be either adequate or inadequate. Also, texts from the transitional period adhere much more to the principle of scriptura continua, and don't segment the written text into words.

Let us now apply what we have said to *Rijeka fragment of Proverbs*. It has all three *jer* signs: the key shaped sign occurs 38, the *štapić* 16 and the apostrophe 7 times. The letter *jat* always has the broken right end. The letter *C* occurs only once, in the shape with the level bottom. Ligatures are rare, adequate and limited to two members. The principle of scriptura continua is relatively well preserved. Therefore, we can date this fragment to the beginning of the second half of the 13th century, which is in accordance with language facts. For example, in this fragment strong *jers* are not yet replaced by ⰰ (*a*).

Locating

Localization, exactly like dating, is a jigsaw puzzle which couldn't be put together if some important pieces are missing. Different factors are important for localization of manuscripts: textual, historical, linguistic, palaeographic, etc. Among the linguistic factors, the most important role is played by dialect features that are specific to a particular area such as the reflexes of the Common Slavic phoneme *jat* as well as other specific

13 Štefanić, *Glagoljski rukopisi Jugoslavenske akademije*, 13.

phonetic changes, the preservation of the prefix *vi-* (< *vy-*) 'out' and the spreading of the nominative form of the *v*-stem nouns to the accusative (*loki*, *crki*, etc.), which are characteristic for north-western Čakavian areal (Istra, Kvarner), the form *če* of the interrogative inanimate pronoun, which is characteristic for the idioms of Vrbnik and Omišalj on the island of Krk, etc.

Let us take as an example our earlier mentioned breviary fragment from Novo Mesto. In it *jat* is predominantly reflected as *e*, which is characteristic for north-western Čakavian. Ikavian reflexes occur only in a few endings (in locative and dative). Another dialectal element in it is the voicing of the preposition *s* to *z* (*z' [di]šuĉimi*) in front of the voiced dental occlusive. Since this situation is characteristic only for the dialects of the hinterland of Opatija (Opatijski Kras) and some dialects of central Istria, we can say that this fragment has been copied in the north-western Čakavian area, but we couldn't be sure in which of those two regions. Since the great majority of Glagolitic manuscripts have arrived in Slovenia from central Istria, I would assume that this fragment was copied somewhere in this area.

Relating to Other Manuscripts

The last step in describing a newly found fragment is its comparison with fragments or codices that are already known and described, in order to determine whether it once belonged to the same book as any of these manuscripts. This step requires the knowledge of all the data about the fragment that are described in the foregoing chapters, as well as the corresponding data about other manuscripts. In many cases it is not possible to determine that the fragment was a part of the same book with any other known manuscript, since its dimensions – such as the height and the width of the columns, the height of letters, the number of rows in a column, etc. – as well as the palaeographic characteristics of the script don't match any other known manuscript. In such cases we have to conclude that our fragment is a testimony to the former existence of one more

Glagolitic book which has not been preserved to today.

Naturally, we can sometimes establish a relationship between our fragment and some other manuscript. I will give as an example the Missal fragment shown in Figure 6, which was found in a book binding in the University Library in Rijeka and described in Mihaljević.[14]

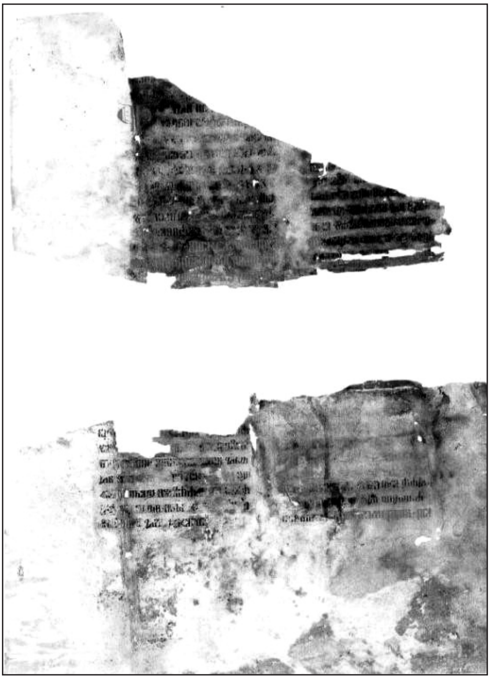


Figure 6 The Missal fragment from Rijeka, 15th century

On the bases of palaeographic and linguistic data I dated this fragment to the first half of the 15th century. After that, I decided to compare it with Croatian-Glagolitic Missals from that period. The first on my list was the *Missal from Novi Vinodolski*, since I had at first glance noticed that the script of the fragment was very similar to that of this Missal. Moreover, I knew that this Missal was heavily damaged, especially its beginning. By

14 Milan Mihaljević, "Novootkriveni glagoljski fragmenti u Sveučilišnoj knjižnici Rijeka," *Dometi* 7:12 (1999): 27-38.

comparing them, I found that they are in all relevant respects identical: the column width in both of them is around 6,5 cm, the column height is 21 cm, columns in both of them contain 30 rows, the height of small letters is 4 mm and of capital letters 5 mm. The decisive fact was when I discovered that the word *poiduťь* which begins on the fragment (*po*-) continues on the first page of the Missal *(-iduťь*). Therefore, I could, without any doubt, conclude that this fragment was once a part of the *Missal from Novi Vinodolski* and that it was located immediately in front of the first page of the preserved part of the Missal. Of course, we are not always so lucky.

References

Fučić, Branko. *Glagoljski natpisi*. Zagreb: JAZU, 1982.

Mihaljević, Milan. “Novootkriveni glagoljski fragmenti u Sveučilišnoj knjižnici Rijeka,” *Dometi* 7:12 (1999): 27-38.

Mihaljević, Milan. “Fragment hrvatskoglagoljskoga brevijara iz Novoga Mesta,” in *Knjige poštujući, knjigama poštovan. Zbornik Josipu Bratuliću o 70. rođendanu*, edited by Davor Dukić and Mateo Žagar, 211-226. Zagreb: Matica hrvatska, 2010.

Mihaljević, Milan. “Prednja strana hrvatskoglagoljskoga *Pazinskog fragmenta E*,” in *Zbornik vo čest na prof. d-r. Radmila Ugrinova-Skalovska po povod devedesetgodišninata ot rag̕anjeto*, edited by Emilija Crvenkovska, 139-148. Skopje: Filološki fakultet “Blaže Koneski”, 2016.

Mihaljević, Milan and Jasna Vince, 139-148. *Jezik hrvatskoglagoljskih Pazinskih fragmenata*. Zagreb; Pazin: Hrvatska sveučilišna naklada, Državni arhiv u Pazinu, Staroslavenski institut, 2012.

Mihaljević, Milan and Anica Vlašić-Anić. “Novootkriveni glagoljski fragmenti u riječkoj kapucinskoj knjižnici,” in *Sprache und Leben der frühmittelalterlichen Slaven*, edited by Elena Stadnik-Holzer and Georg Holzer, 95-124. Frankfurt am Main: Peter Lang Verlag, 2010.

Nazor, Anica. “Još glagoljskih *Pazinskih fragmenata* iz početka XIV. stoljeća,” *Slovo* 60 (2010): 575–608.

Štefanić, Vjekoslav. *Glagoljski rukopisi Jugoslavenske akademije: I. dio*. Zagreb: JAZU, 1969.

Vlašić-Anić, Anica. “Glagoljica u knjižnicima kapucinskih samostana,” in *Glagoljica i hrvatski glagolizam*, edited by Marija-Ana Dürrigl, Milan Mihaljević and Franjo Velčić, 341-354. Zagreb: Staroslavenski institute; Krk: Krčka biskupija, 2004.

Vlašić-Anić, Anica. “Najnovija otkrića glagoljice u knjižnici riječkoga Kapucinskoga samostana Gospe Lurdske,” in *400. godina kapucina u Hrvatskoj: Rijeka 1610.-2010.,* edited by Goran Crnković, 20. Rijeka: Matica hrvatska, Ogranak u Rijeci, 2010.

Vlašić-Anić, Anica. “Najnovija otkrića glagoljice u biblioteci Kapucinskoga samostana u Karlobagu,” in *Franjevci kapucini u Karlobagu*, edited by Anto Barišić, 215-250. Zagreb; Karlobag: Hrvatska kapucinska provincija sv. Leopolda Bogdana Mandića, Kršćanska sadašnjost, Kapucinski samostan sv. Josipa u Karlobagu, Općina Karlobag, 2014.

OPISIVANJE NOVOOTKRIVENIH GLAGOLJSKIH RUKOPISA

Ključne riječi:
hrvatskoglagoljski rukopisi, glagoljski fragmenti, opis novootkrivenih rukopisa

Sažetak

U radu se odgovara na pitanje što treba učiniti kad se pronađe novi glagoljski rukopis. Novopronađeni rukopis treba najprije registrirati i zaštititi. Nakon toga ga treba opisati. Opis rukopisa ima tri glavna cilja: 1. identifikacija, 2. datacija i 3. ubikacija. Identifikacija pretpostavlja precizan opis vanjskog izgleda rukopisa i utvrđivanje njegova sadržaja, tako da svatko komu rukopis dođe u ruke može odrediti da je riječ o tom rukopisu. Datacija i ubikacija, ako nisu izrijekom navedene u rukopisu, zahtijevaju, između ostaloga, poznavanje različitih paleografskih i jezičnih podataka. Paleografski su podatci važniji od jezičnih za datiranje rukopisa, a jezični za njegovu ubikaciju, tj. određivanje mjesta na kojemu je nastao. Posljednji je korak usporedba novootkrivenog rukopisa s drugim od ranije poznatim i opisanim rukopisima kako bi se odredilo je li on nekad bio dio istoga kodeksa s nekim od njih ili je riječ o ostatku nove, dosad nepoznate knjige. Autor navodi mjerila za datiranje i lociranje hrvatskoglagoljskih rukopisa, a cijeli postupak oprimjeruje dijelovima opisa glagoljskih fragmenata pronađenih u posljednjih dvadeset godina.

AUTHORITY VERSUS AUTHENTICITY
THE SHIFT FROM LABELS TO IDENTIFIERS

Gordon Dunsire
Consultant, Edinburgh, Scotland,UK

Mirna Willer
Department of Information Sciences,
University of Zadar, Croatia

Keywords:
authority control, authenticity, Semantic Web technologies, Linked Open Data, entity person, entity nomen, IFLA Library Reference Model (IFLA LRM)

Abstract

This paper describes first the concepts underlying the Semantic Web technology and Linked Open Data environment such as reification, the AAA principle, provenance, and the Open World Assumption with the aim to explore the need to make explicit the social constructs and "social machines" underlying Linked Open Data in the archives, libraries, and museums (ALM) environment, to support and benefit from the shift from human-readable labels to machine-processable identifiers.

The general question, then, is how to make explicit the social constructs, the rules that govern and underpin data production for consumption by the human user, to the "social machines", the rules that govern and underpin data production for machine processing and semantic reasoning in applications aimed at the human user.

Assuming that this technology will be the next to be adopted for library catalogues, and in the context of the new IFLA conceptual model (IFLA LRM) for library metadata developed with "semantic web technologies in mind", the paper analyses the choice and

form of author's name in the case of multiple identities as a case study.

The issues raised by the case study are resolved by separating labels (nomens) from the categorization of entities of interest (persons). A "personal" name is insufficient evidence that the entity labelled is a person. Conversely, every name in a statement of responsibility is the label of a person or group of persons, according to the IFLA LRM. Global interoperability and re-use of metadata recorded by different "official" agencies is better served by semantic coherence in the categorization of entities and relationships of interest than by relying on labels and manifestation statements. Semantic Web technologies support this approach, especially in the context of social construction and deconstruction. The AAA principle and Open World Assumption imply an increasing importance for the role for official, national cultural heritage organizations as providers of trustworthy provenance.

Introduction

The main goal of the paper is to explore the need to make explicit the social constructs and "social machines" underlying Linked Open Data in the ALM environment, to support and benefit from the shift from human-readable labels to machine-processable identifiers.

With that in mind, concepts underlying the Semantic Web technology and Linked Open Data environment such as reification, the AAA principle, provenance, and the Open World Assumption are described first. Then, assuming that this technology will be the next to be adopted for library catalogues, and in the context of the new IFLA conceptual model (IFLA LRM) for library metadata developed with "semantic web technologies in mind", the paper analyses an old cataloguing issue: the choice and form of author's name in the case of multiple identities.

Design issues for Linked Open Data

Linked Open Data (LOD) is the machine-processable data that populates the Semantic Web. The Semantic Web is based on the World Wide Web invented by Tim Berners-Lee, who states:

> "The Semantic Web isn't just about putting data on the web. It is about making links, so that a person or machine can explore the web of data. With linked data, when you have some of it, you can find other, related, data.
>
> Like the web of hypertext, the web of data is constructed with documents on the web. However, unlike the web of hypertext, where links are relationships anchors in hypertext documents written in HTML, for data they [are] links between arbitrary things described by RDF. The URIs identify any kind of object or concept. But for HTML or RDF, the same expectations apply to make the web grow:

1. Use URIs as names for things
2. Use HTTP URIs so that people can look up those names.
3. When someone looks up a URI, provide useful information, using the standards (RDF*, SPARQL)
4. Include links to other URIs, so that they can discover more things."[1]"

These are best practice recommendations for the design of linked data. Every thing of interest, from tangible animate or inanimate object to abstract concept, is identified by one or more Uniform Resource Identifiers (URI). These are machine-processable identifiers that are unique in the domain of the World Wide Web and Internet.

URIs are linked by relationships that are themselves identified by a URI; this allows links to be established between relationships so that ontologies describing classes of things and the relationships between them can also be recorded as linked data. Well-formed ontologies provide machine-processable semantics for the data about individual things.

Internet and Web technologies are used to de-reference a URI by returning additional data about the thing in response to an online request. Good de-referencing services offer the data as a human-readable web page in hyper-text markup language (HTML) format, or as machine-processable data in Resource Description Framework (RDF) format.[2] RDF encodes data as a set of statements in subject-predicate-object format. Each statement, or "triple", is a value (object) associated with an aspect or characteristic (predicate) about a thing (subject).

There are three other fundamental concepts that should be considered in the Linked Open Data environment: the AAA principle, provenance, and the Open World Assumption.

The AAA principle that "Anyone can say Anything about Any thing" means that there is no intrinsic test of truth for the information give in a triple. It can only be tested for semantic consistency with other statements.

1 Tim Berners-Lee, *Linked data - design issues*, Date: 2006-07-27, last change: Date: 2009/06/18, http://www.w3.org/DesignIssues/LinkedData.html.
2 W3C. *Resource Description Framework (RDF)*, https://www.w3.org/RDF/.

For example, this set of four statements is always inconsistent:

1. Thing1 is-a ClassA
2. Thing2 is-a ClassB
3. Thing1 is-same-as Thing2
4. ClassA is-disjoint-with ClassB

The first three statements are data about two individual things, and the fourth statement is from an ontology. If ClassA is Dog, the class of things that are dogs, and ClassB is Cat, things that are cats, then the first three statements say that some thing identified by the URIs Thing1 and Thing2 is both a cat and a dog. The fourth statement says that no thing can be both a cat and a dog. At least one of the statements must be false, but it is impossible to determine which without further information in the form of additional triples.

In this case, most humans "know" that the fourth statement is true, so the inconsistency lies in the first three statements. The fourth statement is from an ontology that defines ClassA and ClassB as a reflection of the real world. However, the ontology could be describing a fictional world in which dogs and cats are the same species. The best that application software that uses this data can do is indicate an inconsistency; a human is required to resolve it, by flagging one or more of the statements as "false" and to be ignored. The flag itself has to be stated as a triple, with no indication of its own veracity.

The provenance of Linked Open Data is important because in the Semantic Web there are competing data from many different sources, including social networks, publishers and sellers, governments, propagandists, and so on. A triple may be "false" because of human error, deliberate misinformation, legacy context and practice, or change over time. Thus key questions for evaluating any Linked Open Data statement are "Who said that? , When was it said?, How was the value of the triple determined?, What was the context?".

This extends the concept of provenance from archival and museum resources to Semantic Web triples. A triple is an information resource in its own right; it has a creator, a time of creation, a method of production, and a history. Such information about a triple can be stated as another triple with the first triple as its subject. This requires the identification of the first triple with a URI, a process of reification that treats the triple as a thing.

For example, the following triple can be reified by assigning a URI to the whole statement, such as Statement1:

- Resource1 has-date-of-production “1951”
- Then the provenance of the triple can be given as:
- Statement1 has-creator Person1
- Statement1 has-date-of-production “2016”
- Statement1 has-source SourceA

Linked Open Data from archives, libraries, and museums is likely to be of much higher quality than the data from many other source, assuming they follow international, national and/or consistent (identified) local rules, standards, and vocabularies that are intended to support an ethos of neutrality and trust.

The Open World Assumption (OWA) is that

1. the absence of a statement (an RDF triple) about some thing is not a statement of absence; for example, no value for date of birth does not imply a Person was not born;
2. statements may be made about any thing in the future because:
   - Knowledge is always incomplete
   - Something new can always be stated, whether it is true or false
   - The AAA principle.

These assumptions are not made in a closed application domain or “world” of fixed sets of statements, for example using a metadata record schema where a blank value may indicate “not applicable”, “unknown” or “nothing” depending on context. Closed-world applications may also use a schema structure to distinguish sub-groups of statements, although the grouping categories are things in themselves.

In the global open world of the Semantic Web every thing must be identified by a URI. This means that closed-world sources must replace "blank nodes" (not identified by a URI) used to cluster statements inside a record, for example for a compound access point, with URIs before they can be used as Linked Open Data by the Semantic Web.

RDF is a mathematical graph of nodes (representing things) and links (representing relationships between things). The Semantic Web is expressed as a single graph of all Linked Open Data, a Giant Global Graph.[3] Applications covering a wide range of things for a wide range of users are unlikely to be interested in statements with fine semantic granularity reflecting local contexts. Specific granularity can be maintained for local applications and mapped to a coarser granularity for global applications. In this process of "dumb-down", the finer contextual semantics are replaced with broader categories of things and relationships, and detail is lost.

IFLA Library Reference Model

In February 2016, the FRBR Review Group, a standing group of the Cataloguing Section of the International Federation of Library Associations and Institutions (IFLA), published the world-wide review draft of the *FRBR-Library Reference Model*, a consolidation of three related but separately published conceptual models for the "bibliographic universe": Functional Requirements for Bibliographic Records (FRBR), Functional Requirements for Authority Data (FRAD), and Functional Requirements for Subject Authority Data (FRSAD).[4] A final draft based on comments from the review and subsequent discussion by the Review Group was published in March 2017 while awaiting formal approval from IFLA, which eventually happened in August 2017.[5] The renamed model, *IFLA*

3 *Giant Global Graph*, https://en.wikipedia.org/wiki/Giant_Global_Graph.

4 Pat Riva, Patrick Le Boeuf and Maja Žumer, *FRBR-Library Reference Model*, 2016-02-21, Draft for the World-Wide Review (International Federation of Library Associations and Institutions), https://www.ifla.org/files/assets/cataloguing/frbr-lrm/frbr-lrm_20160225.pdf; information on the world-wide review, https://www.ifla.org/node/10280?og=587.

5 Pat Riva, Patrick Le Boeuf and Maja Žumer, *IFLA Library Reference Model: A Conceptual Model for Bibliographic Information*, December, 2017 (Den Haag: IFLA), https://www.ifla.org/files/assets/cataloguing/frbr-lrm/ifla-lrm-august-2017_rev201712.pdf.

Library Reference Model states in its scope and objectives, "The IFLA Library Reference Model aims to be a high-level conceptual reference model developed within an enhanced entity-relationship modelling framework. The model covers bibliographic data as understood in the broad general sense."[6] The model, like the three previous ones, is based on the entity-relationship methodology however:

> "The context has changed since the FRBR model was originally developed, and new needs have emerged, particularly in terms of reuse of data in semantic web applications, making this consideration an integral part of the initial planning of presentation of the model definition."[7]

Two issues that raised a particularly fervent discussion during the review and revision process were the definition of the entity *person*, and the concept of Representation.[8] Both issues are crucial for bibliographic information organisation in as much as they ensure three basic functions of the catalogue:

- identification of a resource,
- collocation of information about the author and/or work,
- navigation between entities.[9]

In this paper, we will focus on the entity *person*. LRM-E7 Person is defined as a subclass of the entity LRM-E6 Agent, and as "An individual human being". The Scope notes state:

> "The entity *person* is restricted to real persons who live or are assumed to have lived.

6 Ibid., 9.
7 Ibid., 12.
8 Elaine Svenonius, *The Intellectual Foundation of Information Organization* (Cambridge, Mass.; London: MIT Press, 2000), 71: "The principle of representation requires bibliographic descriptions to be constructed to reflect the way bibliographic entities represent themselves. This principle is used primarily to ensure accuracy of description, though it is used as well to contain costs, to prevent idiosyncratic descriptions, and to assist in the construction of operational definitions."
9 Ibid., 17-20.

> Strict proof of the existence of a *person* is not required, as long as there is a general acceptance of their probable historicity. However, figures generally considered fictional (for example, Kermit the Frog), literary (for example, Miss Jane Marple) or purely legendary (for example, the wizard Merlin) are not instances of the entity *person*."

The objection to this definition, and, in some views, a dysfunctional restriction to the original FRBR and FRAD definitions was the content of the last sentence. It seems to break the natural association of a name with the manifestation on which it appears. The FRAD model[10] for authority data defined *person* as "An individual or a persona or identity established or adopted by an individual or group."[11] This was a reflection of some bibliographic and cataloguing traditions in which fictional, literary, or legendary entities and identities were considered and represented in access points as authors. It should also be noted that, according to FRAD, person can be also an identity which can be "established or adopted" not only by a person, but also by a group of persons. Restricting the entity *person* to a "real human being", a type of *agent* (defined as "An entity capable of deliberate actions, of being granted rights, and of being held accountable for its actions"), the only thing that is intellectually (and/or spiritually[12]) capable of creation of a work, appeared in many comments to be extremely problematic. The concept of identity established by a group was only discussed briefly.

It is difficult to deal with this issue without taking into account its context, introduced by an attribute of the entity *manifestation*, LRM-E4-A4 Manifestation statement, and the distinction between the process of transcribing data from the resource and the process of recording data. Transcribed data may contain accidental or deliberate errors, or may be

10 *Functional Requirements for Authority Data* (Den Haag: IFLA, 2009), http://www.ifla.org/publications/functional-requirements-for-authority-data.

11 *Functional Requirements for Authority Data: A Conceptual Model*, Final Report December 2008, As amended and corrected through July 2013, http://www.ifla.org/files/assets/cataloguing/frad/frad_2013.pdf, 8.

12 The current Croatian cataloguing rules define an author in the following way: "Individual author of a work is a physical person to whom the work belongs as a spiritual ownership". See: Eva Verona, *Pravilnik i priručnik za izradbu abecednih kataloga: Dio 1: Odrednice i redalice*, 2. izmijenjeno izd. (Zagreb: Hrvatsko bibliotekarsko društvo, 1986.), Article 4, p. 18.

incomplete or ambiguous; recorded data are corrected, completed, and disambiguated by using multiple reference sources[13] The entity LRM-E4 Manifestation is defined as "A set of all carriers that are assumed to share the same characteristics as to intellectual or artistic content and aspects of physical form. That set is defined by both the overall content and the production plan for its carrier or carriers", while its attribute, LRM-E4-A4 Manifestation statement as:

> "A statement appearing in exemplars of the *manifestation* and deemed to be significant for users to understand how the resource represents itself". Its Scope notes state the attribute "… is a statement normally transcribed from a source present in examplars of a *manifestation*. Transcription conventions are codified by each implementation."

The transcription of data thus ensures the representativity of the *manifestation* itself which supports the task of identification by the user. The recording of data based on the *manifestation statement*, on the other hand, must support the second function of the catalogue, of collocation. Fulfilling this task has to take into account other aspects of the resource and its context.

We will focus on the collocation of all of the works by a personal author and use a specific example to illustrate the issues. As already mentioned, these are contentious.

Example of Newt Scamander

In this section we discuss the question of the choice and form of author's name in the case of multiple identities, using as an example the work of fiction titled "Fantastic Beasts & Where to Find Them".

The "origins" of this book, a work of fiction, should be explained: Har-

13 See the discussion in: Gordon Dunsire, *RDA data capture and storage.* Presented to Committee on Cataloging: Description and Access II (CC:DA) - ALCTS CaMMS, ALA Midwinter 2016, 11 January 2016, Boston, Mass., http://www.gordondunsire.com/pubs/pres/RDADataCap.pptx.

ry Potter, the main character of a series of eponymous novels, is a pupil of the Hogwarts School of Witchcraft and Wizardry in which he studies, amongst others, the book *Fantastic Beasts & Where to Find Them*, written by Newt Scamander and published by Obscurus Books, 18a Diagon Alley, London. The book, its author, publisher, and publisher address are all part of the fictional world of the novels.

As it appeared that such a book could be of interest to a wider public – the Muggle population as it is referred to in the Harry Potter series – the author of the novels, J. K. Rowling, created it as a separate work that was published in 2001, with a second edition in 2009. For a *manifestation* that is a printed volume the information that it presents about itself is usually found on the title page and its verso. The title page of the 2009 edition of *Fantastic beasts* has a pure textual transcription (Figure 1):

“FANTASTIC
BEASTS &
WHERE TO
FIND THEM

NEWT SCAMANDER

BY
J.K.Rowling

Bloomsbury
in association with
Obscurus Books
18a Diagon Alley, London”

The title page verso states:

“First published in Great Britain in 2001 by
Bloomsbury Publishing Plc
…
This edition published in 2009”

Figure 1 Textual transcription of the title page and the back of the title page of the book *Fantastic Beasts & Where to Find Them*, edition published in 2009

It should be noted that the first edition of 2001 has additional information on the title page, as represented in the British Library catalogue: "Newt Scamander ; special edition with a foreword by Albus Dumbledore".

The author of the book is traditionally given by the information on the title page that is preceded by the preposition "by", and in addition by the copyright statement usually found on the verso. In this case the title page's "J.K.Rowling" is confirmed by the copyright assigned for the text, illustrations and hand lettering on the title page verso. However, what is the role of the name "Newt Scamander" given on the title page immediately below the title? Could a standard publisher's layout of the title page help us here? Elaine Svenonius, discussing how the perceptions of authorial functions over time and authorship has become "increasingly diffuse and mixed"[14] concludes:

> "In those cases where it is useful to identify the author of a document, a constructive (as opposed to a deconstructive) approach is to capitalize on the fact that a thing is usually what it represents itself as being. Lubetzky does this when he defines *author* as "the person or corporate body *represented* as chiefly responsible for the work, i.e., the one in whose name the work is issued and who is purportedly responsible for it … except when one has erroneously, fictitiously, or dubiously been represented as the author of the work." This definition is open-ended in that it allows the various ways in which an author may be represented to be explored. This brings definition (again) around to enumeration, with the intriguing implication that no common or essential component may exist in all instances of authorship."[15]

In considering the key to automatic author identification, in order to be able to "enumerate the various ways in which an author may be represented", Svenonius draws from linguistic and location criteria:

14 Svenonius, *The Intellectual Foundation of Information Organization*, 44.

15 Ibid., 45. The citation is from: Seymour Lubetzky, *Principles of Cataloging: final report: Phase I: Descriptive cataloging* (Los Angeles: University of California, Institute of Library Research, 1969), 29.

> "Certain character strings (such as *by*) usually identify authors, while other strings (such as *edited by*) are likely to identify nonauthors. Moreover, authors' names are likely to appear in key locations, such as in the top third of a title page."[16]

In our case, we have both situations: one name represented in the top third of the title page – Newt Scamander, and another introduced by the character string *by* – J.K. Rowling. Such a situation is open to interpretation by the cataloguer when recording the name of the author by which the book (as a *manifestation*) would be identified by a user, and in deciding under which author's name the work would be collocated with other editions or adaptations of the same *work*, or with other works by the same author! Who should the cataloguer assume that the user/reader would search for in the catalogue? Who does the reader/user consider the author to be, and, consequently, who should the reader assume they should search for: Newt Scamander or J.K. Rowling? Also, does the reader consider these to be the same person or different persons? A reader may hold both opinions, albeit in specific contexts: Rowling wrote the actual book, and Scamander wrote the fictional equivalent. This is second-guessing on a grand scale.

What does the perception of the reader match?

- the perception of the cataloguer in following particular cataloguing rules for organizing bibliographic information,
- the perception of the publisher in laying out the title page and giving publishing information,
- the perception of the author in their wish to be represented by a specific name or to assume a specific bibliographic, public identity?

The general question, then, is how to make explicit the social constructs, the rules that govern and underpin data production for consumption by the human user, to the "social machines", the rules that govern and under-

16 Ibid.

pin data production for machine processing and semantic reasoning in applications aimed at the human user.

Cataloguing as transcription

Most national library cataloguing rules follow IFLA's *International Standard Bibliographic Description* (ISBD) standard[17] that expects the cataloguer to uniformly transcribe values for "Title proper" and "Statement of responsibility" attributes from the resource in hand; that is, an *item* as representative of its *manifestation* in the IFLA LRM model. The information transcribed in these two data elements provides guidance to the cataloguer for the next step: to record the author/creator of the work, that is, to establish authorship for a work so that the user will be able to identify the author and find collocated all their works in a catalogue.

All data transcribed from a *manifestation* is how "the resource represents itself", so these attributes are types of LRM-E4-A4 Manifestation statement. In particular, authorship is usually evident in the "statement of responsibility". It is useful to explore the values recorded in national library catalogues for the Statement of responsibility element of the original 2009 edition, and translations of both editions.

For the original 2009 edition:

- the British Library records "Newt Scamander [i.e.] by J.K. Rowling"
- ICCU, the Italian union catalogue records "by J.K. Rowling ; [introduction by] Newt Scamander

These two examples show two different transcriptions of the same title page information showing two interpretations (following two different cataloguing rules) by two cataloguers and therefore applying different semantics to the data. It is the difference in the cataloguers' output that is

17 *ISBD: International Standard Bibliographic Description*. Consolidated ed. (Berin/Boston: De Gruyter Saur, 2011); *ISBD Consolidated edition*, March 2011 (pre-print), http://www.ifla.org/files/assets/cataloguing/isbd/isbd-cons_20110321.pdf.

relevant, not the accuracy of an interpretation that is dependent on the clarity and specificity of the rules The transcribed data is a transcription with the cataloguer's interpolation:

- [i.e.]: "Newt Scamander", the name found on the title page in a position signifying the name of the author, is not the "real" name of the author, which is "J.K. Rowling";
- [introduction by]: the name of the author of the *book* to which "Newt Scamander" contributed an introduction, is "J.K. Rowling", indicated on the title page with "by". This relegates the question of how to deal with the name "Newt Scamander", to which the Italian cataloguer gave the credit of the writer/author of introduction, to some other considerations as the writer of the introduction would only under specific circumstances be considered worthy of bibliographic (authority) control (in Svenonius's terminology a "non-author"; see discussion about this example under For translations below);

Note: Square brackets, according to ISBD, are used to "enclose information found outside the prescribed sources of information and interpolations in the description."[18]

There is also variation in the number of statement of responsibility elements:

- in the BL record, there is only one data element in line with the interpretation about "who" the names belong to, i.e., who this data element represents;
- in the ICCU record, the statement of responsibility is divided into two sequential data elements, indicated by the ISBD punctuation "_;_", in line with the interpretation of assigning roles to the "named" entities.

18 Ibid., A.3.2.8. These are two distinct categories of added information. Use of the same mark-up of square brackets can only provide the more general indication that the data is not present on the resource itself.

For translations:

- German translation statement of responsibility records “Newt Scamander”; we can assume that this is a translation of the 2001 edition, because there is a reference to the introduction by Albus Dumbledore that was not present in the 2009 edition;
- Italian translation published in 2010 records “dove trovarli [di] Newt Scamander / J.K. Rowling”; a subtitle with cataloguer’s interpolation and a single statement of responsibility.
- Italian translation published in 2015 records a statement of responsibility “di J.K. Rowling ; Newt Scamander”. In this translation the publication statement is “Milano : Salani ; London : Obscurus Books, 2015”; with a Note that “Newt Scamander e Obscurus books sono nomi di fantasia”.
- Spanish translation statement of responsibility records “Newt Scamander ; por J. K. Rowling”.
- French translation statement of responsibility records “Newt Scamander [i.e. J. K. Rowling]”.
- Croatian translation statement of responsibility records “Newt Scamander”.

The representation of the work and names, or character strings, of “authors” by publishers of translations into national languages, and the transcription of the information from the title page varies considerably, and it can be assumed that it corresponds with local and national publishing and cataloguing traditions. The publishers assume what their readership expects, while cataloguers follow their cataloguing rules, which prescribe in what manner they have to resolve particular publishers’ resolutions.

What about the reader? The reader who wants to obtain “Newt Scamander’s book” is the least “deceived” or, more correctly, directly served by German, French and Croatian publishers who present Newt Scamander as the author of the book. Each cataloguer’s decision in those cases, however, was different: the French cataloguer intervened in transcribing the statement of responsibility from the title page by making the interpolation explaining to the reader who the “real author” was; the German and Croatian cataloguer did not make any similar interpolation in the transcription of the title page; while the Croatian cataloguer recorded in a note the real name of the author. Faithful to the original edition, the Italian and Spanish publishers represented the two names on the title page. However, the Italian publisher, added to the 2015 edition the “original” publisher, Obscurus Books. The Italian cataloguer varied in applying the cataloguing rules in transcribing the statement of responsibility: for the 2010 edition “Newt Scamander” is transcribed as part of the subtitle with the interpolation of *[di]*, while in the 2015 edition the name is recorded as the second statement of responsibility, with “J.K. Rowling” as first. In the case of the Spanish edition, the names are transcribed from the title page in the original order, but treated as first and second statement of responsibility.

Differentiating the names on the title page as first and second statement of responsibility implies that the names are considered to be of a different nature or function in terms of type of responsibility for the work. However, which name relates to the principal responsibility for a work, and which to the other, cannot be assumed from the transcription data alone. Namely, the ISBD stipulations as to transcribing the statement of responsibility from the preferred source of information prescribe:

> “1.4.4.2 More than one statement of responsibility occurs when the wording shows multiple statements, as when more than one person or corporate body is represented as performing different functions and the statements are not linked by a conjunction.”

And:

> “1.4.4.3 The difference between the first and subsequent statements of responsibility is merely a matter of order. It does not imply that the first statement relates to the principal responsibility for a work.”

We can assume that the two names as represented on the title page, given the intention of the publisher and their view of how to meet a purchaser's expectations, are differently treated by the cataloguer in respect to the transcription of the data, the interpretation as to the naming of the "author of the book", and to giving different functions to a particular name. This shows to what extent particular national cataloguing rules and local cataloguer's practices diverge from international agreements to support Universal Bibliographic Control, the aim of which is to make a record of a publication once, at its origin, in order for it be economically and efficiently re-used as necessary.

Cataloguing as recording: authorship and issues in authority control

One of the traditional "unwritten laws" of bibliographic description states that the descriptive part of the record should correspond to the choice of access points by which the catalogue is organized as a coherent structure and information tool; and *vice versa*. The descriptive part is, in our case, the transcribed statement(s) of responsibility, and, eventually notes that would give some further explanation to the reader. National cataloguing rules go into great depth in how to treat this issue, although it is untenable in a linked open data context to keep together distinct triples recording description and access data. It is also expensive to transcribe an extensive statement of responsibility, for example from a research paper with multiple authors or a motion picture with full credits, and supply an access point for every person or group that is named.

If we look at the choice of author's name as the access point in relation to the transcribed statement(s) of responsibility from the title page (Table 1), in all the examples except for the German and Spanish ones the name of the *person* J. K. Rowling is displayed as the author. Note that in all cases a space is inserted between the initials, although the author habitually uses the "J.K." form to avoid implying that these are the initials of her "real" given names. This implies that "J.K.Rowling" is intended to be a pseudonym, but the standard methods of authority control do not accommodate this situation.

The form of the author's name displayed for the user differs: J. K. Rowling; Rowling, J. K.; Rowling, Joanne Kathleen, 1965-....; Rowling, Joanne Kathleen. Searches under Scamander in these catalogues retrieve different set of records: they either display only records in which Scamander is found on the title page (BL) or display all records related to the author J. K. Rowling.

Furthermore, the access point in the German catalogue is "Scamander, Newt", while in the Spanish catalogue it is "Scamander, Newt (1897-)",[19] which means that according to the German and Spanish cataloguing rules the name of this fictional character has gained a bibliographic, public identity of a *person*. Records retrieved under this name are related only to those cases in which the name is found on the title page. Works written by the *person* J. K. Rowling are retrieved under that name.

Table 1 Statement of responsibility element and access point for Newt Scamander and J.K. Rowling

Catalogue[20]	Statement of Responsibility	Access Point	Additional Access Point	VIAF / National authority file
Original edition				
BL	[i.e.] by J.K. Rowling	Rowling, J. K.		(LC) R., J. K.; *see also* S., N.; BL: search under S., N. 2 records found
ICCU	[introduction by] Newt Scamander	Rowling, J. K.	Rowling, J. K. Scamander, Newt	[No record in VIAF and in *voci di autorità*; all 3 records found when searched under S., N.; R., J. K. collocates also other works]
Publications of translations				
DNB	Newt Scamander	Scamander, Newt		S., N. [all works under this name]; *Wirklicher Name*: R., J. K. [under R., J. K. only works under this name]

19 One can ask: At what point, if ever, does a death date occur, or is Newt immortal? This can cause havoc in the processing of "real-world" knowledge, e.g. statistics on the average age of authors, life-spans, copyright information, etc.

20 BL, http://www.bl.uk/; ICCU, http://www.sbn.it/opacsbn/opac/iccu/free.jsp; DNB, http://www.dnb.de/DE/Home/home_node.html; BNE, http://www.bne.es/es/Inicio/index.html; BnF, http://catalogue.bnf.fr/index.do; NUL, Zgb, http://www.nsk.hr/.

DNB	Newt Scamander	Scamander, Newt		Same as above DNB
ICCU, 2010	: [di] Newt Scamander ; J.K. Rowling	Rowling, J. K.		Same as above ICCU
ICCU, 2015	di J.K. Rowling ; Newt Scamander	Rowling, J. K.	Rowling, J. K. Scamander, Newt	Same as above ICCU
BNE	Newt Scamander ; por J. K. Rowling	Scamander, Newt (1897-)		S., N. [2 records found]; *see* Scamander, Newton Artemis Fido, 1897-; *see also* R., J. K. [under R., J. K. only works under this name]
BnF	Newt Scamander [i.e. J. K. Rowling]	Rowling, Joanne Kathleen (1965-)		R., J. K.; *see* S., N. [all records under R., J. K.]
NUL, Zgb	Newt Scamander	Rowling, Joanne Kathleen		R., J. K.; *see* S., N. [all records under R., J. K.]

This short analysis of cataloguing practices represented in some national library catalogues is just one more example of a known issue that has been discussed theoretically and for which solutions have been sought for decades at the international and national level.[21] The goals remain the same throughout the evolution of the information technologies that lie behind catalogue construction: identification of a resource, collocation of information about the author and/or work and navigation between entities; the only difference now is that resolution is required not just in the local catalogue, but at global level for "universal" catalogues.

One of the solutions was found in establishing an international database that would help cataloguers in establishing the author's form of

21 See for example: Mirna Willer, "Name Authority Control Paradigm Shift in the Network Environment," in *Frameworks for ICT Policy: Government, Social and Legal Issues*, edited by Esharenana E. Adomi (Hershey, PA: IGI Global, 2010), 182-205, DOI: 10.4018/978-1-61692-012-8.ch012.

name at national level – a kind of riposte to the Universal Bibliographic Control programme. VIAF, the Virtual International Authority File,[22] is the international union catalogue of authority data started by the Library of Congress and the Deutsche Nationalbibliothek, with which other national libraries soon joined, together with some other non-library institutions. VIAF records different forms of name for the same entity, for example *person*, from different sources. VIAF records also the ISNI, the International Standard Name Identifier for personal *names*. The ISNI (ISO 27729) is:

- "the ISO certified global standard number for identifying the millions of contributors to creative works and those active in their distribution, including researchers, inventors, writers, artists, visual creators, performers, producers, publishers, aggregators, and more. It is part of a family of international standard identifiers that includes identifiers of works, recordings, products and right holders in all repertoires, e.g. DOI, ISAN, ISBN, ISRC, ISSN, ISTC, and ISWC.
- The mission of the ISNI International Authority (ISNI-IA) is to assign to the **public name(s)** of a researcher, inventor, writer, artist, performer, publisher, etc. **a persistent unique identifying number** in order to resolve the problem of name ambiguity in search and discovery; and **diffuse each assigned ISNI** across all repertoires in the global supply chain so that every published work can be **unambiguously attributed to its creator** wherever that work is described.
- By achieving these goals the ISNI will act as a **bridge identifier** across multiple domains and become a critical component in **Linked Data** and **Semantic Web** applications."[23,24]

22 *VIAF: the Virtual International Authority File*, http://viaf.org/.
23 *International Standard Name Identifier (ISO 27729)*, http://www.isni.org/.
24 On ISNI see: Andrew MacEwan, Anila Angjeli and Janifer Gatenby, "The International Standard Name Identifier (ISNI): The Evolving Future of Name Authority Control," *Cataloging & Classification Quarterly*, 51:1-3 (2013), 55-71, DOI: 10.1080/01639374.2012.730601.

How do VIAF and ISNI solve the issue of multiple identities? They both record the state-of-the-art, that is, VIAF displays all forms of a name with links between the same names as used by national libraries who provide the data, and ISNI applies as many identifiers as there are bibliographic identities, that is, public names. In the case of our example, ISNI 0000 0001 2148 628X is assigned for the name "J. K. Rowling", in alphabetical order of forms of name, and another for related identities. One of them is "Scamander, Newt" with a bracketed explanation – "other identity, same person". The ISNI for "Scamander, Newt" is ISNI 0000 0000 7049 5783, recording two forms of the name: "Scamander, Newt" and "Scamander, Newt (Pseud.)", with information under Dates: "1965-". As an ISNI identifier has an associated URI, the name, irrespective of recorded forms, represents one and same bibliographic, public identity that stands for a specific entity, while at the same time enables linking to other names representing other identities of the same entity. This is the answer of the new technology to the *See also* reference of the book, card and online catalogue!

The date of birth of "Newt Scamander", recorded in the Spanish and Korean national library catalogues as "1897", gives us the opportunity to discuss here another issue, the one of how to treat names of fictional characters when assuming authorship. IFLA LRM makes it clear that an author cannot be a non-human entity: "… the entity *person* is restricted to real persons who live or are assumed to have lived". The LRM offers a solution for those cataloguing communities that traditionally assign authorship to fictional, literary or legendary figures. The entity *nomen* is the concept of "name" redefined from FRAD via FRSAD. It is linked to any thing, any entity, with the relationship "has appellation". LRM uses a super-entity of all other entities, *Res*, to allow the modelling of high-level structures that can be inherited by sub-entities. The definitions of the two entities and their relationship is:

- LRM-E1 Res: "Any entity in the universe of discourse."; the Scope notes say "… *Res* includes both material or physical things and concepts."

- LRM-E9 Nomen: "An association between an entity and a designation that refers to it."
- LRM-R13: RES has appellation NOMEN: "This relationship links an entity with a sign or combination of signs or symbols through which that entity is referred to within a given scheme or context."

In our case, the cataloguer has to decide with what entity and role the name "Newt Scamander" is associated. The name is a *nomen* that is an appellation of a specific entity. On the one hand, the entity is the *person* J.K. Rowling who authored the book, while on the other it is the fictional character (a concept) associated with the book in some other way. The LRM treats each as a separate *nomen* of two different entities, even though the "name", the LRM's *nomen* string attribute, is the same.[25]

In other words, the IFLA LRM clearly separates the "referent", the thing being referred to or labelled (*person*), from the "reference", the signs and symbols that label the thing (*nomen*). This is a standard approach in modern linguistics, semantics, and computing.

Discussion

The case study illustrates a benign example of the impact of the Semantic Web's AAA principle. There is a real person known as "J.K. Rowling", capable of making a statement that falsely and deliberately implies that her work was created by a non-human, fictitious entity with the name "Newt Scamander". She uses the social construct of the established layout of a printed volume to make the statement, by placing the name immediately after the title. She also rectifies the statement using the same construct by using the preposition "by" with her pen-name for the Harry Potter works. This pen-name is based on another social construct. The use of initials conceals personal information such as sex, religion, and ethnicity. J.K. Rowling also uses the pen-name "Robert Galbraith", using the same con-

25 See further the discussion of this issue in *IFLA LRM*, op. cit., 5.4 Nomens in a Library Context.

struct to falsely and deliberately imply that she is male.[26]

The broader social construct is the "universe of discourse" confined, like the "bibliographic universe", to persistent information carriers; that is, *manifestations* that may consist of one or more copies or *items*. In this universe or domain, a *manifestation* must embody an *expression* that realizes a *work* created by one or more *persons* or real human beings. A *manifestation* and its ur-creator are labelled with a title and a name; another social construct that differentiates a *person* from a product by categorizing the referent. Both appellations are usually assigned by the same *person* and used for representation in *manifestations* within the universe.

The IFLA LRM is compatible with the Open World Assumption: the *nomen* of a creator may not be known, but this does not imply that there is no creator. Conversely, the presence of a *nomen* in the context of a statement of responsibility for creation of the embodied *work* does not imply that the creator is anything other than a *person*. This may appear to conflict with the social constructs of specific groups of users. In this case, children at the lower age limit of the intended audience of the *work* may not agree that a non-human entity could not have created it; clearly, in the universe of discourse of Harry Potter, non-human entities are capable of creation and production. In other cases, religious or ethnic groups may include transcendent entities that are believed to participate in discourse via a human being as "persons". The separation of an appellation from its entity allows a *nomen* to be processed in "name authority" applications without requiring the identification of the type of entity of which it is the appellation, following the Open World Assumption.

The presentation of library and other metadata to its users is also a social construct. This has its modern origins in the catalogue card and printed bibliography, at the same time as the layout of the printed volumes that the metadata describes, in the second half of the nineteenth century. The presentation of metadata is the focus of ISBD, which is based on a recapitulation of the layout of the self-describing data in a *manifestation*. The utility of this construct is severely diminished by the impact of digital

26 *Wikipedia*, https://en.wikipedia.org/wiki/J._K._Rowling.

technologies: presentation of data and its metadata is localized to specific groups of creators, products, and audiences. The Semantic Web does not require a universal display format when atomic, single statements can be assembled into molecular sets optimized for any specific application. The concept of a "record", in the sense of a fixed set of metadata recorded and displayed as a definitive representation of a *manifestation*, an "official record", is at odds with the Open World Assumption.

More generally, there is no requirement to make any descriptive statement at all about an entity. Its URI is sufficient for it to be part of a chain of links between other entities of interest. A *manifestation* of a *work*, irrespective of its popularity with the audience, may not offer a single "title proper" or any statement of responsibility, or any of the conventional representation data that form the basis of a description.

Conclusion

The issues raised by the case study are resolved by separating labels from the categorization of entities of interest. A "personal" name is insufficient evidence that the entity labelled is a person. Conversely, every name in a statement of responsibility is the label of a person or group of persons, according to the LRM. Global interoperability of metadata recorded by different "official" agencies is better served by semantic coherence in the categorization of entities and relationships of interest than by relying on labels and manifestation statements. Semantic Web technologies support this approach, especially in the context of social construction and deconstruction. The context of the AAA principle and Open World Assumption implies an increasing important of the role of official, national cultural heritage organizations as providers of trustworthy provenance.

References

Berners-Lee, Tim. *Linked data - design issues*," Date: 2006-07-27, last change: Date: 2009/06/18, http://www.w3.org/DesignIssues/LinkedData.html.

Dunsire, Gordon. *RDA data capture and storage.* Presented to Committee on Cataloging: Description and Access II (CC:DA) - ALCTS CaMMS, ALA Midwinter 2016, 11 January 2016, Boston, Mass., http://www.gordondunsire.com/pubs/pres/RDADataCap.pptx "Functional Requirements for Authority Data," http://www.ifla.org/publications/functional-requirements-for-authority-data.

Functional Requirements for Authority Data: A Conceptual Model, Final Report December 2008, As amended and corrected through July 2013, http://www.ifla.org/files/assets/cataloguing/frad/frad_2013.pdf.

Giant Global Graph, https://en.wikipedia.org/wiki/Giant_Global_Graph.

International Standard Name Identifier (ISO 27729), http://www.isni.org/.

ISBD: International Standard Bibliographic Description. Consolidated ed. Berin/Boston: De Gruyter Saur, 2011; *ISBD Consolidated edition*, March 2011 (pre-print), http://www.ifla.org/files/assets/cataloguing/isbd/isbd-cons_20110321.pdf.

Lubetzky, Seymour. *Principles of Cataloging: final report: Phase I: Descriptive cataloguing*. Los Angeles: University of California, Institute of Library Research, 1969.

MacEwan, Andrew, Anila Angjeli and Janifer Gatenby. "The International Standard Name Identifier (ISNI): The Evolving Future of Name Authority Control," *Cataloging & Classification Quarterly*, 51:1-3 (2013), 55-71, DOI: 10.1080/01639374.2012.730601.

Riva, Pat, Patrick Le Boeuf and Maja Žumer. *FRBR-Library Reference Model*, 2016-02-21, Draft for the World-Wide Review (International Federation of Library Associations and Institutions), https://www.ifla.org/files/assets/cataloguing/frbr-lrm/frbr-lrm_20160225.pdf; information on the world-wide review, https://www.ifla.org/node/10280?og=587.

Riva, Pat, Patrick Le Boeuf and Maja Žumer. *IFLA Library Reference Model: A Conceptual Model for Bibliographic Information*, December, 2017. Den Haag: IFLA, https://www.ifla.org/files/assets/cataloguing/frbr-lrm/ifla-lrm-august-2017_rev201712.pdf.

Svenonius, Elaine. *The Intellectual Foundation of Information Organization*. Cambridge, Mass.; London: MIT Press, 2000.

Verona, Eva. *Pravilnik i priručnik za izradbu abecednih kataloga: Dio 1: Odrednice i redalice*, 2. izmijenjeno izd. Zagreb: Hrvatsko bibliotekarsko društvo, 1986.

VIAF: the Virtual International Authority File, http://viaf.org/.

Willer, Mirna. "Name Authority Control Paradigm Shift in the Network Environment," in *Frameworks for ICT Policy: Government, Social and Legal Issues*, edited by Esharenana E. Adomi. Hershey, PA: IGI Global, 2010, 182-205, DOI: 10.4018/978-1-61692-012-8.ch012.

W3C. *Resource Description Framework (RDF)*, https://www.w3.org/RDF/.

Wikipedia, https://en.wikipedia.org/wiki/J._K._Rowling.

Further Readings

Berners-Lee, Tim, Mark Fischetti. *Weaving the Web: The Past, Present and Future of the World Wide Web by its Inventor*. London: Orion Business, 1999.

Hendler, Jim and Tim Berners-Lee. "From the Semantic Web to social machines: A research challenge for AI on the World Wide Web," *Artificial Intelligence*, October 2009, doi:10.1016/j.artint.2009.11.010, http://web.stanford.edu/class/cs227/Readings/hendler-berners-lee-semantic-web.pdf.

Willer, Mirna and Gordon Dunsire. *Bibliographic Information Organization in the Semantic Web*. Oxford: Chandos publishing, 2013.

W3C. *Resource Description Framework (RDF)*, https://www.w3.org/RDF/.

W3C. *Simple Knowledge Organization System (SKOS): Reference: W3C Recommendation*, 18 August 2009, http://www.w3.org/TR/skos-reference/.

W3C. *Web Ontology Language (OWL)*, https://www.w3.org/2001/sw/wiki/OWL.

AUTORITET NASUPROT AUTENTIČNOSTI
PRIJELAZ S OZNAKA NA IDENTIFIKATORE

Ključne riječi:
autoritet, autentičnost, tehnologije semantičkog weba, povezani otvoreni podaci (LOD), entitet osoba, entitet nomen, IFLA Library Reference Model (IFLA LRM)

Sažetak

U radu se prvo opisuju temeljni koncepti tehnologije semantičkog weba i otvorenih povezanih podataka (Linked Open Data: LOD) kao što su reifikacija, načelo AAA (Anyone can say Anything about Any thing), provenijencija i Pretpostavka otvorenog svijeta (Open World Assumption: OWA) s ciljem istraživanja potrebe jasnog iskazivanja društvenih konstrukata i „društvenih mašina“ na kojima se temelje otvoreni povezani podaci u području djelovanja arhiva, knjižnica i muzeja (AKM) kako bi se potpomogao, a time i iskoristio prijelaz s ljudski-čitljivih oznaka na strojno-obradive identifikatore. Glavno je pitanje, stoga, kako jasno iskazati društvene konstrukte, pravila koja upravljaju i podupiru proizvodnju podataka pogodnih za strojnu obradu i semantičko razumijevanje u aplikacijama koje su namijenjene čovjeku kao korisniku.

Pod pretpostavkom da će se ta tehnologija primijeniti za izgradnju budućih knjižničnih kataloga, a u kontekstu novoga IFLA-inog konceptualnog modela (IFLA LRM) za knjižnične metapodatke koji je razvijen „vodeći računa o tehnologijama semantičkog weba“, ovaj rad istražuje izbor i oblik autorova imena s višestrukim identitetima kao analizu slučaja.

U analizi slučaja, postavljena pitanja rješavaju se odjeljivanjem oznaka (nomena) od kategorizacije entiteta koji su predmet zanimanja (osobe). „Osobno ime“ nije dovoljan dokaz da je označeni entitet osoba. Suprotno tomu, prema modelu IFLA LRM svako ime u podacima o odgovornosti kataložnog opisa jest oznaka osobe ili skupine osoba. Globalna interopera-

bilnost i ponovna upotreba metapodataka koje bilježe različite „službene“ agencije mogu se bolje provoditi semantičkim usklađivanjem kategorizacije entiteta i odnosa, nego li oslanjanjem na oznake i podatke o pojavnim oblicima. Tehnologije semantičkog weba podržavaju takav pristup, posebno u kontekstu društvenih konstrukcija i dekonstrukcija. Načelo AAA i Pretpostavka otvorenog svijeta ukazuju na sve veću važnost službenih nacionalnih baštinskih organizacija kao autoriteta koji daju vjerodostojnu provenijenciju metapodacima.

III

Originals and Copies

PRINTS AND DRAWINGS BETWEEN ORIGINALITY, AUTHENTICITY AND AUTHORITY
EXAMPLES FROM THE VALVASOR COLLECTION IN ZAGREB, CROATIA

Milan Pelc
Institute of Art History, Zagreb, Croatia

Keywords:
Johann Weichard Valvasor, Justus van Nypoort, prints, drawings

Abstract

Processing drawings and prints from a historical collection such as Valvasor's is a very complex and demanding task. Some aspects of that complexity are analysed in this paper. The primary difficulty in the cataloguing of drawings is associated with the determination of their authorship. The questions of authorship also involve questions of authenticity or originality. Many of the drawings contained in Volume XVII of the collection were made in Valvasor's workshop as exercises by anonymous and not always overly skilled artists, who copied models from the existing prints. On the other hand, there are also drawings which served as models for prints, like ones made by Justus van Nypoort, most probably the strongest artistic personality in Valvasor's workshop. Furthermore, the paper also presents some other characteristic types of the relationship between the drawings and prints in relation to city views in Valvasor's main work Die Ehre des Herzogthums Krain (1689). It seems that Valvasor, as the main authority, sponsor and leader of the project for the creation of those city views, has deliberately suppressed on them the information about the authorship of his artist-associate Justus van Nypoort.

The Library of the Archdiocese of Zagreb, today stored at the Croatian State Archives, holds one of the most valuable collections of prints in this part of Europe. It was owned by a versatile scholar from Carniola, Baron Janez Vajkard Valvasor (1641-1693). Valvasor was a writer, researcher, publisher of important historical and topographic works, collector and artist. His library of 2,600 or so titles, along with his prints collection, was purchased around 1690 by the Zagreb Bishop Aleksandar Mikulić, who added it to the Zagreb Cathedral Library, the so-called Metropolitana.[1] Originally, Valvasor's prints collection consisted of 18 large folio volumes. One volume (Nr. IV) disappeared before the mid-19th century. The remaining 17 volumes contain 6,990 prints and 770 drawings. In more recent times, the Slovenian Academy of Sciences and Arts published a facsimile of the entire Valvasor Collection in an expensive *de luxe* edition, which can be consulted in several European libraries.[2]

The work on the facsimile was completed between 2003 and 2008. This kind of work principally involves the cataloguing of each and every print and drawing, primarily entailing the identification of authors, i.e., painters, printmakers, text authors and editors who contributed to its production. However, unlike the prints, which were catalogued by a group of eight experts from Slovenia and Croatia, the drawings have remained uncatalogued, because no one could responsibly undertake such a delicate task. The renowned Slovenian art historian, Jure Mikuž, wrote an accompanying commentary for the volume, where he actually recapitulated the state of current research, but did not venture into further attribution.[3]

1 About Valvasor cf. Branko Reisp, *Kranjski polihistor Janez Vajkard Valvasor* (Ljubljana: Mladinska knjiga, 1983); Irmgard Palladino and Maria Bidovec, *Johann Weichard von Valvasor (1641-1693): Ein Protagonist der Wissenschaftsrevolution der Frühen Neuzeit: Leben, Werk und Nachlass* (Wien, Köln, Weimar: Böhlau, 2008).

2 Lojze Gostiša, ed., *Iconotheca Valvasoriana*, vol. I – III, V – XVIII (Ljubljana: Fundacija Janeza Vajkarda Valvasorja pri Slovenskoj akademiji znanosti in umetnosti; Zagreb: Zagrebačka nadbiskupija, Knjižnica Metropolitana, 2004-2008).

3 Cf. Jure Mikuž, "Drawings in Album XVII of the Valvasor Print Collection. State od Research," *Iconotheca Valvasoriana*, vol. XVII (Ljubljana: Fundacija Janeza Vajkarda Valvasorja pri Slovenskoj akademiji znanosti in umetnosti; Zagreb: Zagrebačka nadbiskupija, Knjižnica Metropolitana, 2008), XXXIII-XXXVII.

The cataloguing of drawings is a much more demanding task than the cataloguing of prints, precisely because of the difficulties in determining authorship. In the processing and especially in the attribution of drawings, specialist knowledge comes to the fore, even more than in the case of prints. Different technical methods of paper or ink analysis are definitely helpful in determining the true period in which a drawing or a print was made. An efficient approach to image recognition using a technical computing environment for visual data analysis will perhaps open new possibilities for dealing with more complicated issues, such as the recognition of authorship of prints and drawings.[4] Traditionally, however, in order to recognize an authentic drawing and to distinguish it from possible copies and imitations, one has to have a trained eye for the entire oeuvre of an artist, most notably his drawings. Thus, for instance, Erwin Pokorny, a specialist for the oeuvre of the Dutch painter David Teniers the Younger, at one point analysed around sixty of his drawings from Volume XVII of the Valvasor Collection.[5] Maybe in the not too distant future the expert will be replaced by an image processing technique, i.e., by computer software and a huge image database. However, at present we must still more or less rely on the knowledge of human experts.

Naturally, questions of authorship involve questions of authenticity or originality. Drawings are unique works of art, most often without the signature of the author. However, the uniqueness of a drawing does not rule out the possibility of it being a copy based on a model of any kind, which means that its originality may be very limited. Indeed, many of the drawings contained in Volume XVII were made in Valvasor's workshop as exercises by not overly skilled artists, who copied models from the existing prints.[6] One of them was Valvasor's associate, the painter Bartolomeus Jernej Ramschüssel (1664-1711), who in 1680 produced a number of pen and ink drawings (Figure 1) based on an etching series by the famous

4 For this cf. on the internet Image recognition methods US 6763148 B1, http://www.google.com/patents/US6763148.

5 Erwin Pokorny, „Unbekannte Zeichnungen von David Teniers dem Jüngeren in der Sammlung Valvasor," *Acta historiae artis Slovenica*, 11 (2006): 177-197.

6 Cf. Jure Mikuž, "Drawings in Album XVII," XXIII. See also Mirna Abaffy, "Crteži i grafike – predlošci u Valvasorovoj zbirci Nadbiskupije zagrebačke," in *Klovićev zbornik: Minijatura – crtež – grafika 1450.-1700.*, ed. M. Pelc (Zagreb: Institut za povijest umjetnosti, 2001), 187-204.

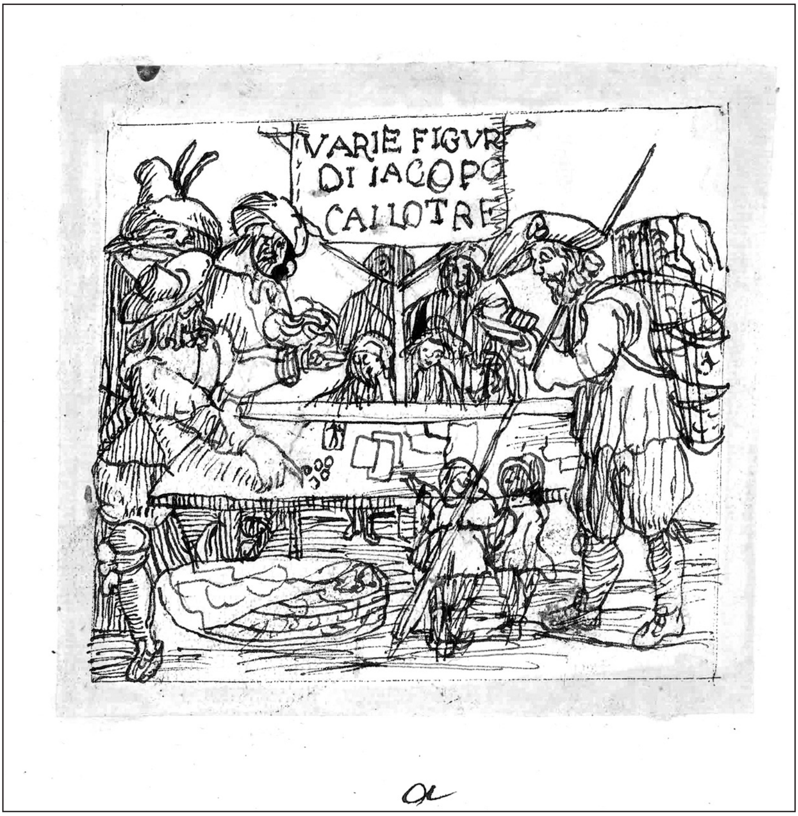


Figure 1 Bartolomeus Jernej Ramschüssel, Printseller who displays his prints on a table and offers them to interested costumers, drawing. Zagreb, Valvasor Collection of the Zagreb Archdiocese, VZ XVII, 397a

French printmaker Jacques Callot, entitled *Variae figure* (1617-1621).[7] However, we would be mistaken to think that what Ramschüssel had in front of him were Callot's original etchings, conceived and designed as they were as miniature patterns intended for artists to exercise their own drawing skills. Ramschüssel's models were not Callot's originals, but rather were very good copies (Figure 2) made by an unknown printmak-

7 Mounted in VZ XVII, 397a-400d. Ramschüssel even signed some of the sheets with his name or monogram. One of them (VZ XVII, 399d) is signed and dated 1680.

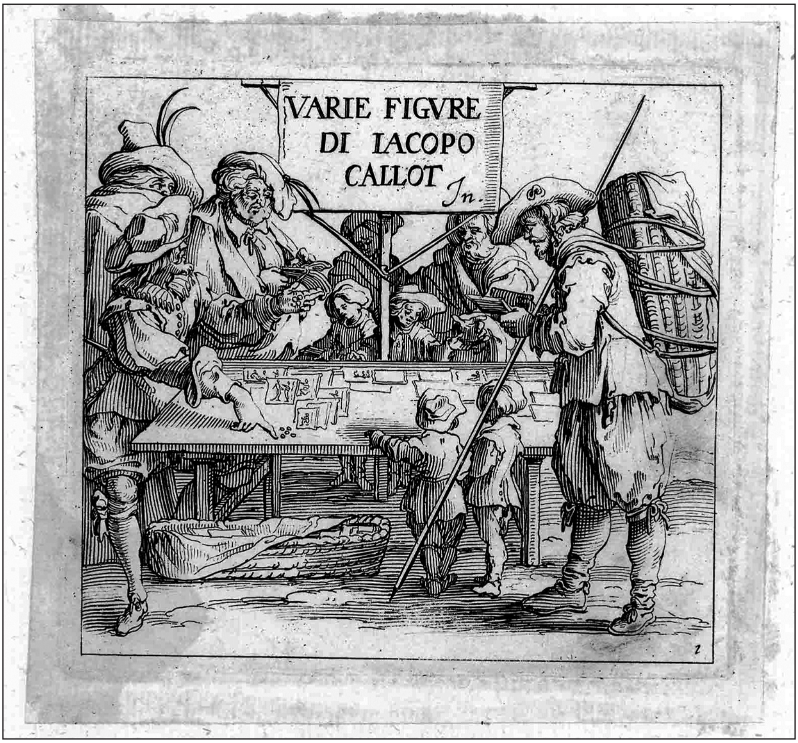


Figure 2 Unknown author, Printseller who displays his prints on a table and offers them to interested costumers, etching after Callot. Zagreb, Valvasor Collection of the Zagreb Archdiocese, VZ XIV, 128a

er and acquired by Valvasor for his collection.[8] Ramschüssel used these etchings as models for his drawing training, but he was unable to convey the fineness of Callot's etched line and had no desire to capture a deeper meaning hidden in the originals. How far away Ramschüssel's drawings are from the meaning of the original is best seen in the first sheet of the series, showing a print seller displaying his prints on a table and offering them to interested customers. If we were not familiar with the original, we would find it difficult to understand what Ramschüssel actually wanted to

8 Mounted in VZ XIV, 128a-135b. The only original by Callot from this series is VZ XIV 136a (Peasant woman with one arm outstretched). Cf. Lojze Gostiša, *Iconotheca Valvasoriana*, vol. XIV, Nr. 128a-135b, 136a.

present. However, those drawings held a certain importance for Valvasor, who decided to include them, along with many others that were similar in character, into Volume XVII.

That Valvasor was aware of the poor artistic value of many drawings is explicitly confirmed by the cover page of Volume XVII, which says: "Various sketches and drawings with mundane and spiritual themes, that are either well or badly sketched and drawn by different painters and artists." Such a varied choice of works, without strict aesthetic criteria, fits well with the profile of the entire collection. In fact, Valvasor incorporated in his collection a series of less important engravings and woodcut prints, and sometimes even cuttings from illustrated books. This "catch-all" approach to collecting prints is a characteristic of the 17th century collectors.[9] Of course, one should keep in mind that Valvasor's richer contemporaries from the aristocratic circles could afford to purchase more works by renowned artists and thus achieve a higher "artistic" level in their collections. Yet, owing to this thematic "mishmash" and the collectors' tolerance of aesthetically less valuable prints, the Valvasor Collection provides a good insight into all forms and types of the printmaking production of the 17th century. Moreover, due to the inclusion of the drawings and etchings made by his associates in Bogenšperk, it also reflects Valvasor's own situation as a local cultural entrepreneur in Carniola at the end of the 17th century.

Also falling in the category of training, but this time with a better outcome, are the drawings copied after the engravings by Albrecht Dürer and Heinrich Aldegrever, which are also preserved in Volume XVII.[10] Unlike Ramschüssel's exercises in free imitation, these drawings were apparently made with a desire to copy every single move of the engraving needle in the original image. The format of the drawings fully matches the format of the engravings. The drawings, as for instance *St. George with the Dead*

9 Examples of a similar approach are the collections of the Bavarian Prince-Elector Maximilian I (1573-1651) or of the Imperial Marshall and Prince Maximilian Willibald von Waldburg (1604-1667). Cf. Stephan Brakensiek, *Vom „Theatrum mundi" zum „Cabinet des Estampes": Das Sammeln von Druckgraphik in Deutschland 1565-1821* (Hilesheim, Zürich, New York: Olms, 2003), 186-236. While the collection of the Duke Maxmilian I of Bavaria, which contained nine volumes with around 12,000 sheets, is known only thanks to the inventory list of prints, the collection of Maximilian Willibald von Waldburg is still kept at the Wolfegg Castle, Oberschwaben. This collection includes more than 120,000 sheets.

10 The drawings are mounted in VZ XVII, 113-118, 120.

Figure 3 Unknown author, St. George with the Dead Dragon, drawing. Zagreb, Valvasor Collection of the Zagreb Archdiocese, VZ XVII, 115b

Dragon after Dürer (Figure 3), convey almost all the details of the print work, but under a closer examination one can see that the copyist omitted some small parts (for example, the end of St. George's flag) or that his drawing skill was far below the artistic level of the original.[11] The en-

11 The drawing is mounted in VZ XVII, 115b.

Figure 4 Hieronymus Wierix, St. George with the Dead Dragon, engraving about 1600. VZ XVII, 42b

gravings that served as models for these drawings are partly contained in the collection.[12] A comparison of the drawings and the prints from which

12 The relative prints by Aldegrever are mounted in VZ XV, 70a (Hercules killing centaur Nessus), VZ XV, 71a (Hercules killing the giant Anthaeus). The prints by or after Dürer are in VZ XV, 42b. (St. George killing the dragon, copy by Hieronymus Wierix); VZ XV 53a (Peasants at the market, anonymous, reverse copy), VZ XV, 53b, (the same, copy by Hieronymus Wierix). See the descriptions in Lojze Gostiša, *Iconotheca Valvasoriana*, vol. XV. The prints by Dürer that served as models for other drawings from the same draughtsman in VZ XVII are not in the collection. Perhaps the drawings are an indication that these prints had also been owned by Valvasor, but were later lost.

they were generated (Figure 4) shows the inferiority of the draughtsman, which may lead to the conclusion that the drawings were created at Valvasor's workshop. At a later date, at the lower margins of the drawings with Dürer's monogram, a rough hand inscribed in black ink an ex libris of the new owner *Bibl Metrop Zagreb* – Zagreb Metropolitan Library. It seems that someone, assuming that these were particularly valuable drawings by Albrecht Dürer, wanted to mark them forever as the Metropolitana's property.

Markings on the margins of the drawings are not rare. In some cases, the collector himself took care to indicate an author. This is, for instance, the case with the portrait of a man with a hat (Figure 5), undersigned in Valvasor's own handwriting as *Schenfeld Pictor*, which has already been examined by Mirna Abaffy.[13] Through this notice the drawing was connected with one of the leading painters of the early South German baroque, Johann Heinrich Schönfeld (1609-1684), who in Valvasor's time worked in Augsburg, both as a painter and an engraver.[14] The same figure is shown as a mirror image on an etching (Figure 6), also present in the Valvasor Collection, without the signature of the engraver but with the inscription "Schönfeld" written twice on the back side of the etching.[15] The drawing probably served as its starting point, but the attribution of the drawing as well as of the print to Schönfeld remains uncertain.[16] On the other hand, if the drawing is not by Schönfeld, if neither the print nor the drawing is

13 Mounted in VZ XVII, 201, cf. Mirna Abaffy, *Crteži i grafike*, 188.

14 About Schönfeld cf. Christof Trepesch, Stefanie Müller, Wilma Sedelmeier (ed.), *Maler von Welt: Johann Heinrich Schönfeld im Bestand der Kunstsammlungen und Museen Augsburg* (Augsburg: Deutscher Kunstverlag, 2010); Ursula Zeller, Maren Waike (ed.), *Johann Heinrich Schönfeld – Welt der Götter, Heiligen und Heldenmythen* (Friedrichshafen: DuMont, 2010); Gerlinde Lütke Notarp, "Johann Heinrich Schönfeldt to Johann C. Schott," in *Hollstein's German Engravings, etchings and woodcuts 1400-1700* (Rotterdam: Sound&Vision, 2000), 3-23.

15 Mounted in VZ XII, 168, cf. Mirna Abaffy, *Crteži i grafike*, 188. Cf. also Lojze Gostiša, *Iconotheca Valvasoriana*, vol. XII, 168.

16 Cf. Mirna Abaffy, *Crteži i grafike*, 188. According to M. Abaffy, this etching is of a poorer quality than other works by Schönfeld in the Valvasor Collection. Due to the formal and technical differences from other etchings by Schönfeld, M. Abaffy does not consider it as a Schönfeld's work. According to the description by Ana Lavrič in Lojze Gostiša, *Iconotheca Valvasoriana*, vol. XII, 168, the etching was certainly made in Valvasor's workshop after a drawing in VZ XVII, 201. It is probably a portrait (or even a self-portrait) of the painter Johann Heinrich Schönfeld. Cf. Herbert Peé, *Johann Heinrich Schönfeld. Die Gemälde*, Berlin, 1971., 240-241, cat. nr. P1-5. Still, the resemblance of this figure with the known portraits of Schönfeld is very questionable. The drawing from the Valvasor Collection is not included in the working list of 56 drawings by Schönfeld in Hans-Martin Kaulbach, *Zeichnungen im Werk Johann Heinrich Schönfelds*, in Ursula Zeller, Maren Waike (ed.), *Johann Heinrich Schönfeld*, 230-235.

Figure 5 Johann Heinrich Schönfeld, Portrait of a man with a hat, drawing. Zagreb, Valvasor Collection of the Zagreb Archdiocese, VZ XVII, 201

a portrait or a self-portrait of Schönfeld, why would Valvasor have put Schönfeld's name on them? Schönfeld, though blind in his left eye and unable to use his left hand, was a highly renowned painter, so the indication of the authorship of the drawing was probably very important to Valvasor

Figure 6 Johann Heinrich Schönfeld, Portrait of a man with a hat, etching. Zagreb, Valvasor Collection of the Zagreb Archdiocese, VZ XII, 168

as a guarantee of its value. But the corresponding etching must have also been somehow connected with Schönfeld, which was important to the collector too. Here we are in the terrain of uncertainties and presumptions. There is also the question of how the collector acquired the drawing and the etching as well as the question of who actually is represented on both of them. Further research into this topic may provide some answers, but as we already know, many similar cases have remained unresolved.

The authorship connections between the drawings and the prints in the Valvasor Collection are very diverse and, in many cases, not fully understood.[17] Between its covers, Volume XVII contains the drawings that served as models for the prints included in other volumes, as for example a group of drawings by the Dutch painter and graphic artist Justus van der Nypoort (around 1645/49-after 1698), who spent some time working at Valvasor's Bogenšperk Castle (Wagensberg) near Litija in present-day Slovenia. It is well known that in Bogenšperk Valvasor gathered artists who produced prints for his editions, but some of them, such as van Nypoort, also made drawings and prints independently, irrespective of their direct usefulness for Valvasor. Particularly interesting among Nypoort's drawings are genre works, all of which were signed and sometime dated by the master himself. Using some of those drawings as models, Nypoort made engravings in reverse and signed most of them as well.[18] An example is a genre drawing called *A quack doctor pulling a tooth* and its corresponding etching (Figures 7, 8).[19] It shows an improvised outdoor doctor's office in which a country doctor is pulling a man's tooth, while his assistant is distilling some herbal remedy. Another man with a sick tooth is standing in the background, waiting for his turn for the treatment. The scene is permeated with an authentic sense of humour: Nypoort even signed the drawing by writing his name on a medical licence with stamps, which lies on the table to the right – the artist signed himself as a quack doctor, in a jocular and self-mocking fashion. In the engraved version of the drawing, his signature is moved to the left, below the lower edge of the image, with the marks *In (venit) et f (ecit),* which indicate his complete authorship as

17 Cf. the examples in Mirna Abaffy, *Crteži i grafike.*

18 Uroš Lubej, "Justus van der Nypoort (Utrecht, ok. 1645/49, po 1698): življenje in delo holandskega umetnika na Kranjskem in v drugih deželah Nemškega Cesarstva" (PhD diss., University of Ljubljana, 2008), drawings under catalogue numbers A 1 – A 40.

19 The drawing is mounted in VZ XVII, 45, the engraving in VZ VIII, 270. Cf. Renata Gotthardi-Škiljan, *Justus van der Nypoort: Grafika i crteži iz Valvasorove zbirke Nadbiskupije zagrebačke*, (Zagreb: JAZU, 1972), nr. 9 (engraving), nr. 54 (drawing). The drawing can be dated between 1677 and 1679; cf. also Uroš Lubej, „Justus van der Nypoort", Nr. A 21.

Figure 7 Justus van der Nypoort, A quack doctor pulling a tooth, drawing. Zagreb, Valvasor Collection of the Zagreb Archdiocese, VZ XVII, 45

Figure 8 Justus van der Nypoort, A quack doctor pulling a tooth, etching. Zagreb, Valvasor Collection of the Zagreb Archdiocese, VZ VIII, 270

an inventor and engraver. The fact that the author so carefully signed his works points to his artistic pride and desire to make his authorship highly visible.

In some cases, however, this concern for author's identification is lacking. This is the case with the panoramic views made for the topography of Carniola or, roughly, present-day Slovenia, published by Valvasor as an album of engravings under the title *Topographia Ducatus Carnioliae modernae.* It was printed by the printer Johannes Baptist Mayer in Ljubljana in 1679. Mayer printed the text, while the engravings were prepared in Bogenšperk. The book has a preface in Latin by Valvasor's friend from Croatia, the historian and writer Pavao Ritter Vitezović. In addition to the title-page engraving, made by Andreas Trost, Valvasor's important collaborator in Bogenšperk, the album includes 319 views of cities, market towns, monasteries and castles within the borders of the then Duchy of Carniola, which also encompassed a large part of Istria and the Croatian Littoral.[20] For each engraved view a drawing was first made in the field and later transferred to a copper plate at the Bogenšperk workshop. Most of those drawings are preserved in the so-called *Book of Sketches*, which is still held at the Metropolitan Library. *The Book of Sketches* is an album in which Valvasor, neatly and in alphabetical order, inserted and bound all the field-made panoramic views that had been prepared for the topography of Carniola.[21]

An attempt to analyse those drawings and engravings once again raises the question of authorship. The question is made all the more complicated by the fact that the creation of as many as 300 engraved views assumed the

20 The copy of this book held by the Metropolitana Library (originally from the Valvasor's Library) was stolen in 1987; cf. Božena Kukolja and Vladimir Magić, *Bibliotheca Valvasoriana. Katalog knjižnice Janeza Vajkarda Valvasorja* (Ljubljana-Zagreb: Slovenska akademija znanosti in umetnosti, 1995), nr. 2414. Some copies are held by the National Museum of Slovenia in Ljubljana and in the National and University Library in Ljubljana. Facsimile edition: Janez Vajkard Valvasor, *Topographia Ducatus Carnioliae modernae,* ed. Branko Reisp (Ljubljana: Cankarjeva založba, 1970), with an introductory study by Branko Reisp, *Janez Vajkard Valvasor in njegova Topographia Ducatus Carnioliae modernae iz leta 1679*, 1-18.

21 The original does not have a cover or title page. It is usually referred to as: *Skicna knjiga za topografiju Kranjske*, *1678.-1679.*, held in the Library of the Zagreb Archdiocese, MR 199. In the catalogue by Božena Kukolja, Vladimir Magić, *Bibliotheka Valvasoriana*, nr. 2408, it is described as: 'Knjiga načrtov za delo „Topographia Ducatus Carnioliae modernae"'. The fascimile edition was published under the title: Janez Vajkard Valvasor, *Topografija Kranjske 1678-1679. Skicna knjiga*, ed. Branko Reis, (Ljubljana: Slovenska akademija znanosti in umetnosti, 2001).

participation of several draftsman and engravers. Field sketches, however, seem to have been made mostly by the same draftsman, which is clearly visible from his drawing style. The researchers of the Valvasor Collection have long been puzzled by the question: who was the draftsman? Some earlier authorities – F. Stelé, E. Cevc and B. Reisp – thought that Valvasor himself created the drawings, along with the very vivid descriptions of each locality.[22] The descriptions and the drawings clearly show that their author visited those sites.

However, as shown by concurrent studies by Uroš Lubej, things are not that simple. Lubej demonstrates, beyond any doubt, that Valvasor was not a good enough draftsman to be able to produce such high-quality drawings as are, for the most part, those contained in *The Book of Sketches*.[23] After a careful analysis, Lubej was able to establish that most of them were created by the aforementioned Justus van Nypoort.[24] Lubej, whose doctoral thesis was on Nypoort's oeuvre, demonstrated that the pen and ink technique with graded wash, which was used in the creation of the drawings in Volume XVII signed by Nypoort, and the one used in the drawings from *The Book of Sketches* are from the same hand. The drawings must have been finished by 1679, i.e., before the album with the engraved views of Carniola was published. This corresponds with the time of Nypoort's documented stay in the circle of Valvasor's associates in Bogenšperk.[25] In this case, an art historian specialized in the oeuvre of an artist was able to penetrate into the secret of the authorship of unsigned drawings, proving

22 Cf. France Stele, "Valvasorjev krog in njegovo grafično delo", *Glasnik muzejskega društva za Slovenijo* 9 (1928): 5-50; Branko Reisp, *Kranjski polihistor*, 123; Emilijan Cevc, "J. V. Valvasor kot mentor slikarjev", in *Janez Vajkard Valvasor Slovencem in Evropi: Johann Weichard Valvasor to the Slovenes and to Europe*, (Ljubljana: Narodna galerija, 1989), 169-199, particularly pg. 194; Branko Reisp, "Valvasorjeva skicna knjiga za topografijo Kranjske", in: Janez Vajkard Valvasor, *Topografija Kranjske*, 3-17. Here Reisp does not take into account Lubej's doubts about Valvasor's authorship of the drawing, presented in the article by Uroš Lubej, "Justus van der Nypoort na Kranjskem", *Varstvo spomenikov. Journal for the protection of Monuments* 37 (1997): 54-62. Recapitulating once again the older theses, L. Gostiša attributes all the drawings, executed in the then most widespread techniques – ink wash, chalk drawing, pen and ink drawing – to Valvasor; cf. Lojze Gostiša, "Poskus likovne označitve risarskega opusa Janeza Vajkarda Valvasorja", *Vis imaginis. Baročno slikarstvo in grafika. Jubilarni zbornik za Anico Cevc* (Ljubljana: Slovenska akademija znanosti in umetnosti, 2006), 381-399.

23 Cf. Uroš Lubej, "Justus van der Nypoort", 98 ff.

24 125 drawings were made in red chalk and 225 in pen and ink, washed or unwashed, as well as the sketch for the cover. Cf. Ibid., 180-206; on Nypoort's drawing technique 103 ff.

25 Cf. Ibid., 13 ff.

that they belonged precisely to that artist! It is at first sight surprising that Nypoort, mentioned above as a proud draftsman and printmaker, did not leave his signatures on those drawings. The reason probably lies in the nature of drawing city views, which does not require the same degree of originality as do genre drawings or prints.[26] Apparently, the field sketching of city views was not thought to be an inventive and original work, but rather a technical task whose results would undergo two additional phases: 1. copying the original drawing in reverse; 2. engraving this copy to a copper plate. Valvasor himself, as the main authority, supervised the entire work and, as demonstrated by Lubej, made corrections already in the drawings, especially in relation to the titles of city views.[27]

Now, however, we face a new puzzle. Most of the engravings in *The Topography of Carniola* album were signed not only by different engravers, such as Andreas Trost, Pavao Ritter Vitezović and Peter Mungerstorff, but also by Valvasor, who marked them with his monogram and the note: *delineavit* – indicating himself as the author of the drawings based on which the engravings were made. A number of engravings remained unsigned. Ten years later, Valvasor included those engravings, along with numerous new city views, into his masterpiece *Die Ehre des Hertzogthums Krain*, published in Nuremberg in 1689. In the introductory notes to the 11th book of this great encyclopaedia of Carniola, which contains descriptions of cities and their images, Valvasor stresses – on two occasions – that what he presents before the reader are not only the descriptions of the cities and castles, but also their images (*Abrisse)*, "[…] which were drawn by my own hand, according to the actual situation on site." In the spirit of his patriotic enthusiasm he continues: "This way, the entire world will find out that this Duchy, which has been subject to Austrian rule, is equally excellent as any other, and in many things even more delightful (*köstlicher*)." In the end, he stresses again that the engravings (having actually in mind the drawings they were based on) were drawn (*abgeschildert*) by his own hand, on the spot.[28]

26 Cf. Ibid., 111.
27 Cf. Ibid., 105.
28 Johann Weichard Valvasor, *Die Ehre des Hertzogthums Krain* (Nürnberg: Endter, 1689), Book 11, Kurzer Vorbericht, 3 f.

Figure 9 Justus van der Nypoort, View of Kastav, drawing. Skicna knjiga za topografiju Kranjske, 1678.-1679., The Library of the Zagreb Archdiocese, MR 199.

All of this speaks in favour of the older opinion that Valvasor was the author of the drawings.[29] Still, a keen eye can recognize Nypoort's hand in them. I will try to illustrate this complicated relation by means of the drawing of the town of Kastav (Figure 9), which at the time, together with other towns on the Liburnian coast, all the way to Rijeka (St. Veit am Flaum), belonged to the Duchy of Carniola. The alleged Nyport's drawing of Kastav, made in pen and brown-ink wash, is similar to most of the other drawings in *The Sketchbook*. The town is shown on a hill, but at a short distance from the sea, which is actually unrealistic since it can hardly be seen from there. However, the town had its own little port, which is visible

29 For example, a leading authority on Valvasor, Branko Reisp, in Janez Vajkard Valvasor, *Topographia Ducatus Carnioliae modernae*, 5 ff. considers Valvasor as the author of most of the original drawings. In the commentary to the facsimile edition of *The Topography of Carniola* Reisp writes: "The author of the Book of Sketches and its successor, the album with engravings of Carniola, was Janez Vajkard Valvasor, not only as its initiator, patron, organizer and investor, but also as the main creator and the final editor of the pictures. This conclusion stems from his own statements in several places in his works […]" : Reisp, "Valvasorjeva skicna knjiga za topografijo Kranjske", 17.

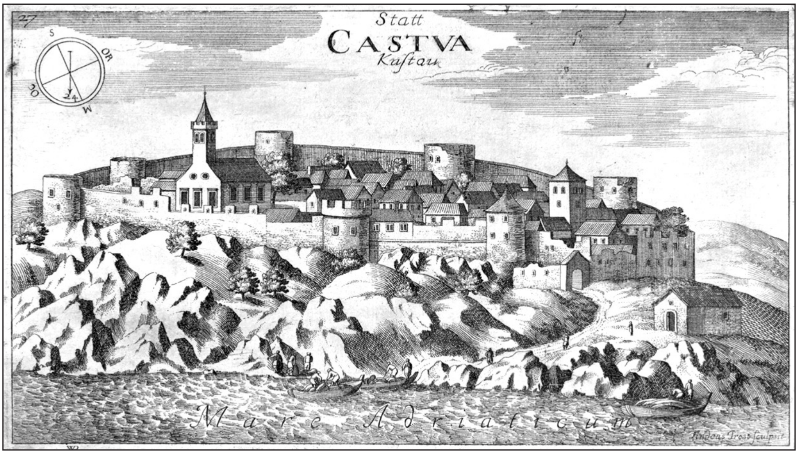


Figure 10 Andreas Trost, View of Kastav, engraving, in: JANEZ VAJKARD VALVASOR, Topographia Ducatus Carnioliae modernae, Ljubljana, Johannes Baptist Mayer, 1679.

on the drawing. The contact with the sea was of a crucial importance for the town, while the information about it had an indispensable value for the viewers.[30]

Nypoort's drawing served as a model for an engraving by Andreas Trost – one of the most important engravers of Valvasor's workshop in Bogenšperk – which was published in *The Topography of Carniola* album (Figure 10). Trost signed himself as the author at the bottom right of the engraving, using the formula: *Andreas Trost sculpsit*. In this way, he made it clear that he was only the engraver, while the original drawing, used as the basis for his engraving, was created by another author, whose work is denoted with the term *delineavit*. That other artist, as appears from the reference in the engraving, was Valvasor himself. He signed the bottom left corner bellow the line of the frame, with the monogram: WD (*Valvasor delineavit*).

Thus, the same question arises again: how is this possible if, according to the compelling analysis of Uroš Lubej, the city views preserved in *The Book of Sketches* were created by Justus van Nypoort? Perhaps it was pos-

30 The same is true for the city views of Brseč, Mošćenica and Veprinac – other Liburnian towns above the sea in Valvasor's book that had their own little ports.

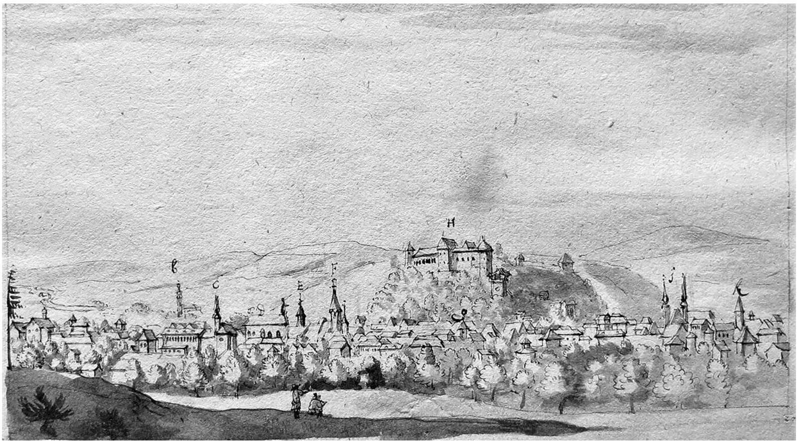


Figure 11 Justus van der Nypoort, View of Ljubljana, drawing. Skicna knjiga za topografiju Kranjske, 1678.-1679., The Library of the Zagreb Archdiocese, MR 199

sible because, according to Lubej, there must have been a concrete field cooperation between the two authors. Nypoort and Valvasor toured together the towns of Carniola, and while Valvasor was surveying and describing locations, Nypoort was creating field sketches, which ended up as final drawings in *The Book of Sketches*.[31] This is clearly confirmed on the drawing with the city view of Ljubljana in *The Sketchbook* (Figure 11). Its foreground to the left shows both of the participants in the creation of the city view – the painter, sitting and sketching, and the writer behind him, describing and surveying. Some objects in the city view are marked with letters, which are explained in a separate, printed legend. This part was also Valvasor's task. According to Lubej, Nypoort's drawings served as an operational basis for Valvasor, who corrected them linguistically and editorially, and supplemented them with a compass rose.[32] It seems, however, that the possibility of Valvasor's even more direct involvement in the creation of the drawings, for instance through the production of auxiliary sketches based on his surveying, or through copying the original drawings in reverse, should not be excluded either. All these forms of participation were probably the reason why Valvasor denoted himself as the author of

31 Cf. Uroš Lubej, "Justus van der Nypoort na Kranjskem", 56.
32 Cf. Ibid.

most of the model drawings, and, as Lubej put it, Nyport has remained in his shadow.[33] However, the entire situation is further complicated by the fact that Valvasor's monogram is present in most of the engravings in *The Topography of Carniola* album, but not in all of them. There are about thirty engravings without his signature, mostly the city views based on the drawings made in red chalk. Lubej again attributes them to Nypoort.[34] It seems that in these cases Valvasor, although a "big name" and renowned authority, felt more respect for his associate's authorship, though he did not show it by putting his name on the plates, but rather by dropping his own.

About ten years later, Valvasor used the plates from *The Topography of Carniola* album for his monumental main work *Die Ehre des Hertzogthums Krain* (1689), but he had them cropped and adjusted to the new book format.[35] In addition to this, Valvasor ordered some completely new city views, which were not present in *The Topography of Carniola* album, for instance Volosko – Volovska, Trieste, and many others. Finally, and most interestingly, some views were made again as adjusted and simplified copies of Trost's engravings from *The Topography of Carniola* album: Alben, Antignana, Auersperg von der Hinterseiten, Brseč, Biben, Bilichgraz, Bishafflackh, Burgstall, Castva, Cirkniz, Crainburg, Creuz, Drogembl, Egg, Fischern, Freidenthal, Freienthurn, Gallenek, Gimpl, etc. The question of why Valvasor in these cases did not use the adjusted original plates from *The Topography of Carniola* album remains unanswered. Perhaps they were damaged, worn out, lost or destroyed? We do not know. However, I hope that from this short recapitulation, based mostly on the results of the previous research, we can get an impression of how demanding the process of creating those city views was and how uncertain the process of determining the authorship in such cases must be.

Irrespective of how much Valvasor was involved in the creation of the

33 Cf. Uroš Lubej, "Justus van der Nypoort", 98 ff.

34 Cf. Uroš Lubej, "Justus van der Nypoort na Kranjskem", 56.

35 These are, for instance, the views of Mošćenica, which was cropped from the left side; St. Iacobi, cropped from the right side; Žminj, cropped from the right side (whereby the signature of P. Ritter was cut out); Veprinac, cropped from the right side; Beram, cropped from the left side (whereby the monogram VD was cut out, but the monogram R., and even the numeration from *The Topography of Carniola* album, remained – this was more often the case) and so on.

city views as an author, what is most important from the cultural-historical point of view is his attempt to provide his readers and viewers with the most exact possible written and visual information about the towns, castles, monasteries and fortresses represented in his work. Although the name of Valvasor stands for the credibility of the written and visual information offered to the users of his albums and books, we always have to bear in mind that it was achieved through complex teamwork with different grades of originality. The final result is impressive – a huge and amazing collection of authentic visual documents with a relatively high level of artistic and information value.

References

Abaffy, Mirna. "Crteži i grafike – predlošci u Valvasorovoj zbirci Nadbiskupije zagrebačke," in *Klovićev zbornik: Minijatura – crtež – grafika 1450.-1700.*, ed. M. Pelc. Zagreb: Institut za povijest umjetnosti, 2001., 187-204.

Brakensiek, Stephan. *Vom "Theatrum mundi" zum "Cabinet des Estampes": Das Sammeln von Druckgraphik in Deutschland 1565-1821*. Hilesheim, Zürich, New York: Olms, 2003.

Cevc, Emilijan. "J. V. Valvasor kot mentor slikarjev," in *Janez Vajkard Valvasor Slovencem in Evropi: Johann Weichard Valvasor to the Slovenes and to Europe*. Ljubljana: Narodna galerija, 1989., 169-199.

Gostiša, Lojze, ed. *Iconotheca Valvasoriana*, vol. I – III, V – XVIII. Ljubljana: Fundacija Janeza Vajkarda Valvasorja pri Slovenskoj akademiji znanosti in umetnosti; Zagreb: Zagrebačka nadbiskupija, Knjižnica Metropolitana, 2004-2008.

Gostiša, Lojze. »Poskus likovne označitve risarskega opusa Janeza Vajkarda Valvasorja,« in *Vis imaginis. Baročno slikarstvo in grafika. Jubilarni zbornik za Anico Cevc*, Ljubljana: Slovenska akademija znanosti in umetnosti, 2006, 381-399.

Gotthardi-Škiljan, Renata. *Justus van der Nypoort: Grafika i crteži iz Valvasorove zbirke Nadbiskupije zagrebačke*. Zagreb: JAZU, 1972.

Kukolja, Božena and Vladimir Magić. *Bibliotheca Valvasoriana. Katalog knjižnice Janeza Vajkarda Valvasorja*, Ljubljana-Zagreb: Slovenska akademija znanosti in umetnosti, 1995.

Lubej, Uroš. "Justus van der Nypoort na Kranjskem," in *Varstvo spomenikov. Journal for the protection of Monuments*, 37 (1997): 54-62.

Lubej, Uroš. "Justus van der Nypoort (Utrecht, ok. 1645/49, po 1698): življenje in delo holandskega umetnika na Kranjskem in v drugih deželah Nemškega Cesarstva", PhD diss., University of Ljubljana, 2008.

Mikuž, Jure. "Drawings in Album XVII of the Valvasor Print Collection. State od Research," *Iconotheca Valvasoriana*, vol. XVII. Ljubljana: Fundacija Janeza Vajkarda Valvasorja pri Slovenskoj akademiji znanosti in umetnosti; Zagreb: Zagrebačka nadbiskupija, Knjižnica Metropolitana, 2008, XXXIII-XXXVII.

Gerlinde Lütke Notarp. „Johann Heinrich Schönfeldt to Johann C. Schott," in *Hollstein's German Engravings, etchings and woodcuts 1400-1700*. Rotterdam: Sound&Vision, 2000, 3-23.

Palladino, Irmgard and Maria Bidovec. *Johann Weichard von Valvasor (1641-1693): Ein Protagonist der Wissenschaftsrevolution der Frühen Neuzeit: Leben, Werk und Nachlass.* Wien, Köln, Weimar: Böhlau, 2008.

Herbert Peé. *Johann Heinrich Schönfeld. Die Gemälde*. Berlin, 1971.

Pokorny, Erwin. "Unbekannte Zeichnungen von David Teniers dem Jüngeren in der Sammlung Valvasor," *Acta historiae artis Slovenica*, 11 (2006): 177-197.

Reisp, Branko. *Kranjski polihistor Janez Vajkard Valvasor*. Ljubljana: Mladinska knjiga, 1983.

Reisp, Branko. "Valvasorjeva skicna knjiga za topografijo Kranjske," in Janez Vajkard Valvasor. *Topografija Kranjske*, 3-17.

Stele, France. "Valvasorjev krog in njegovo grafično delo," *Glasnik muzejskega društva za Slovenijo*, 9 (1928): 5-50.

Christof Trepesch, Stefanie Müller, Wilma Sedelmeier (ed.). *Mal-*

er von Welt: Johann Heinrich Schönfeld im Bestand der Kunstsammlungen und Museen Augsburg. Augsburg: Deutscher Kunstverlag, 2010.

Valvasor, Johann Weichard. *Die Ehre des Hertzogthums Krain*. Nürnberg: Endter, 1689.

Valvasor, Janez Vajkard. *Topographia Ducatus Carnioliae modernae*, ed. Branko Reisp. Ljubljana: Cankarjeva založba, 1970.

Valvasor, Janez Vajkard. *Topografija Kranjske 1678-1679. Skicna knjiga*, ed. Branko Reisp. Ljubljana: Slovenska akademija znanosti in umetnosti, 2001.

Ursula Zeller, Maren Waike (ed.). *Johann Heinrich Schönfeld – Welt der Götter, Heiligen und Heldenmythen*. Friedrichshafen: DuMont, 2010.

GRAFIKE I CRTEŽI IZMEĐU ORIGINALNOSTI, AUTENTIČNOSTI I AUTORITETA *PRIMJERI IZ VALVASOROVE ZBIRKE NADBISKUPIJE ZAGREBAČKE*

Ključne riječi:
Johann Weichard Valvasor, Justus van Nypoort, crteži, grafike

Sažetak

Obrada crteža i grafika u povijesnoj zbirci poput Valvasorove vrlo je složen i zahtjevan zadatak. Neki aspekti te složenosti analizirani su u ovom radu. Katalogizacija građe provedena tijekom rada na faksimilnom izdanju čitave zbirke, objavljenom između 2005. i 2008. godine pod naslovom Iconotheca Valvasoriana (voditelj projekta i urednik Lojze Gostiša), pokazala je, između ostalog, da je primarna poteškoća povezana s utvrđivanjem autorstva. U pitanjima autorstva prelamaju se, pak, i pitanja autentičnosti odnosno originalnosti. Pritom je atribucija crteža, uvezanih u XVII. svezak zbirke, mnogo delikatniji zadatak od atribucije grafika. Crteži su unikatna djela, najčešće bez potpisa autora, no unikatnost crteža ne isključuje mogućnost da se radi o kopiji prema nekom predlošku bilo koje vrste – što znači da mu originalnost može biti vrlo ograničena. Dapače, mnogi su crteži u XVII. svesku nastali u Valvasorovoj radionici kao vježbe anonimnih, ne uvijek pretjerano vještih umjetnika, koji su kopirali predloške s grafika. Unatoč njihovoj niskoj umjetničkoj vrijednosti za Valvasora su ti crteži imali određenu važnost koja ga je i potakla da ih, kao i mnoge druge slične po karakteru uvrsti u XVII. svezak. Zahvaljujući tematskom „svaštarenju" i tolerantnosti kolekcionara prema estetski manje vrijednim grafikama, Valvasorova zbirka omogućava jedinstven uvid u presjek svih oblika i vrsta grafičke produkcije 17. st. U radu su prikazani još neki karakteristični oblici odnosa crteža i grafika s obzirom

na originalnost i autentičnost, posebice kad je riječ o bakroreznim vedutama u Valvasorovom glavnom djelu Die Ehre des Herzogthums Krain (1689.). Kao glavni autoritet, naručitelj i voditelj projekta izrade tih veduta Valvasor je, kako se čini, na njima svjesno suprimirao autorstvo svog umjetnika-suradnika i crtača predložaka Justusa van Nypoorta.

USE OF EITHER ORIGINAL OR SURROGATE RECORDS IN MUSEUM EXHIBITIONS
A CASE STUDY

Tamara Štefanac
Croatian Railway Museum, Zagreb, Croatia

Keywords:
exhibition, museum; museum experience; originals; records; surrogates

Abstract

This paper addresses a cluster of questions relating to visitors' perceptions of archival materials, specifically records, when they are displayed in museum exhibitions in either their original form of creation or in surrogate form: What kind of interest do these records induce and how is it manifested? Do visitors have an emotional response to them? To what extent can a user's physical interaction with a record be replaced or complemented by a digital one? The paper presents and discusses the results of a pilot study, "Records as Museum Artefacts," that used mixed methods and techniques, including a focus group, visitor surveys and focused observation of visitors. The results suggest that those designing exhibitions should be more attentive, when incorporating records, to how they might both emphasize the materiality of those records and create possibilities for the visitor to achieve an additional meaningful experience by including digital surrogates.

Introduction

In designing both exhibition content and display objects are selected with a purpose. By creating an exhibition where objects are displayed in their original form, the exhibition designer, curator or other professional involved in the design, presumably assessed that museum visitors would derive greater value from a display using original materials than they would from some kind of surrogate. Among other things, museums exist to preserve original, (i.e., in the form in which it was acquired by the museum) material objects and to communicate about them to visitors, thereby enriching the future with the past (even the most immediate past). Today intangible cultural heritage is also a focus of many cultural institutions and projects, although such heritage is often only captured and represented by traditional cultural institutions in some fixed manifestation of its original form (e.g., audio of a song, video of a traditional dance). This paper focuses on records created through government, business, or personal activities that would usually be preserved in an archive but for various reasons, including their value as material culture or cultural heritage, are instead held as part of museum collections and/or are incorporated into museum exhibitions. These might include letters, photographs, maps, engineering schematics, architectural plans, financial and personnel records, and so forth.

Exhibitions in heritage institution have many purposes, from the promotion of collections to the education or entertainment of visitors. This representational form of communication was the prime function of twentieth century museums around the globe. Contemporary museological exhibition practices have passed through various stages of deconstruction and re-conceptualization as museums attempt to respond to increasing demands resulting from unpredictable individual visitor interests. The earlier focus on the objects being displayed has shifted toward a focus on the exhibition experience, referring both to the visitors' cognitive and emotional[1]

1 The term "emotional" here is used, as it is within the museum literature, to encompass a range of affective responses that visitors might have to museum exhibitions and their contents. Affect has recently been the subject of increased attention in the archival field also. See for example, Anne J. Gilliland and Marika Cifor, eds. special issue on "Affect and the Archive, Archives and Their Affects," *Archival*

reception of the exhibition and to the exhibition as a product in itself. Indeed, "exhibition" is a complex construct. As Dévallées *et al.* note:

> When exhibitions are considered a set of exhibited objects, they include *musealia*, museum objects or « real things », such as substitutes (exact replicas, copies, etc.); all exhibition accessories (elements used for presentation purposes as, for instance, showcases or separation panels), and information elements (texts, films or multimedia) as well as useful signaling.[2]

They further elaborate on the notion of "real things" in the museum setting:

> Within such context no attempt should be made to rebuild a reality that cannot be transferred to museums (a real « thing » in a museum is already a substitute of reality) but instead an attempt should be made to communicate it through such devices.[3]

These assertions provoke several questions. For example, to what extent can the virtual replace the physical in a museum exhibition? Can records in any form, on any media displayed in exhibitions encourage any emotional reactions? What emotions originate through encounters with digital items? On which aspects are visitors' preferences based?

Literature Review

In material culture as well as in museum and curatorship studies, there has been extensive research concentrating on visitor behaviour in muse-

Science, 16 (2016).

2 André Desvallées, Martin Schärer and Noémie Drouguet, "Exhibition." In *Fundamental Concepts of Museology*, eds. FrançoisMairesse, André Desvallées, Bernard Deloche et al. *ICOFOM Study Series, Working Papers Issue,* 38 (2009): 66.

3 Ibid., 66.

um settings. Relevant to the pilot study presented here, there are several recent investigations of human responses to objects on display, issues of authenticity, and emotions provoked through encounters with objects in their original and surrogate forms. For example, in 2013 Barry Ardley and Richard Voase investigated how the display of one of the remaining original copies of one of the best known records in the world, Magna Carta, together with other iconic documents that were central to the founding of the United States influenced visitors' reactions and impressions.[4] They suggest that, "…the key to meeting visitor expectations is to re-imagine the Magna Carta as a 'sacred' rather than a secular document. The practical implication is to present the document in a way to generate *aura.*"[5] These records have the status of iconic documents that assert fundamental human rights and thus their meaning and presence transcend their material carrier.[6] Such documents might be expected therefore to trigger reactions and evoke feelings in visitors, and possibly even to create the kind of numinous experience that Kiersten Latham describes as:

> ... ultimately... one whole swirling entity of these things, overlapping and connecting. It is the uniting of all these things—emotion, intellect, feeling, senses, imagination—that results in meaning for the experiencer.[7]

In subsequent studies Latham gives the examples of telegrams used in exhibition to evoke feelings,[8] and the reproduction of a photograph displayed at Little Round Top, Gettysburg Battlefield.[9] Displayed objects from the perspectives of the study's participants were conceptualized as a

4 Barry Ardley and Richard Voase, "Magna Carta: Repositioning the Secular as 'Sacred,'" *International Journal of Heritage Studies,* 19:4 (2013): 341-352.
5 Ibid., 341.
6 A copy of Magna Carta achieved even greater attention in 2015, the year of its 800th anniversary, when a new vault for its safekeeping and display was built in Lincoln Castle and the document's presentation was redesigned.
7 Kiersten F. Latham, "What is 'the Real Thing' in the Museum? An Interpretative Phenomenological Study," *Museum Management and Curatorship,* 30:1 (2015): 15.
8 Kiersten F. Latham, "Numinous Experiences with Museum Objects," *Visitor Studies*, 16:1 (2013): 11, DOI: 10.1080/10645578.2013.767728.
9 Kiersten F. Latham, "Psychological Flow and the Numinous Museum Experience," *UM Working Papers in Museum Studies,* 11 (2016): 1.

form of direct connections with the past. Therefore, beside their original purpose of their creation, and various subsequent usages, the displayed objects have additional value, interpreted differently by different viewers, but with some similarity in their affect on the viewer.

Other authors examine fetishism as another type of affect connected with displaying originals. In 2000, Helen Wood argued that exhibitions are actually "carefully directed fetishism."[10] From Wood's point of view, fetishism of a certain object is "[…] a personal relationship between man and object and the identity of the owner is reflected or imposed onto that object. Fetishism humanizes the object. It takes it out of context, only focuses on part of the whole and can be a form of substitution for something absent."[11]

Wood cited several methods frequently used by museums to provoke fetishistic behaviour including "restrictive access and emotive publicity leaflets,"[12] and constructing exhibition design in such a way that, "the object and the viewer are both made 'special' by creating a unique atmosphere around them."[13] By asserting that "… the dim lighting, glass cases, description labels and physically isolated objects all promote fetishism,"[14] she pointed to exhibition design as an important factor in provoking interest, or maybe even fetishistic behaviour. The list of specific elements which Wood highlights as important exhibition design elements that influence visitors' behaviour can probably be expanded and researched more through an examination of museum exhibition practices.

But it can be also argued that all the abovementioned elements of exhibition design (low lighting, safe display cases, etc.) are in fact required for the purposes of securing museum contents and exhibiting them in accordance with conservators' requirements. The reasons why documents are displayed in some kind of glass-protected exhibition case are practical, but this raises the question of how such a mode of display affects visitors' responses. An exhibition differs from an archive reading or reference room where users

10 Helen Wood, "The Fetish of the Document: An Exploration of Attitudes Towards Archives," in M. Procter and C.P. Lewis, eds., *New Directions in Archival Research* (Liverpool: Liverpool University Centre for Archive Studies, 2000), 38.

11 Ibid., 24.

12 Ibid., 39.

13 Ibid., 42.

14 Wood, "The Fetish of the Document," op. cit., 42.

are monitored when they are interacting with documents. The particular use situation or the users' experience with the records in the reading or reference room in an archive or museum is not of primary interest here, but one might suspect that in these cases quite the opposite effect is occurring, especially if the original and any digital surrogates are correlated. In the context of a reading room in an archive (or museum) where originals can be accessed and in the context of a public exhibition where, in most cases, originals are distanced from user or visitor's direct touch, a different dynamic is being created. If in both contexts a user or visitor is offered a choice between an original or any kind of copy (reproduction, digitized copy, etc.) then questions about why the choice has been made, and whether it is related in any way with the notion of affect are pertinent.

Cultural studies scholar Maryanne Dever poses the following question:

> As researchers, we remain oblivious to the fact that these documents are so often delivered to us swathed in protective layers of yet more (generally acid-free) paper. But what if we took seriously the thing that is paper by looking at it rather than always overlooking it or looking through it? And what if we asked ourselves what work the paper is doing if it is not simply the neutral platform or container for words?[15]

Here Dever is thinking about both the paper record and the additional protective layer of paper around it. The researcher is concentrated on the information contained in the record, and usually overlooks its materiality and what that might represent (e.g., age, evidence of origin, etc.). Anastasia Varnalis-Weigle's recent study deals with similar questions of users' experiences of physical objects and their digital surrogates. Among other artefacts, she used photographs to examine users' relations to the same item in print and digitized form.[16] She found that:

15 Maryanne Dever, "Provocation on the Pleasures of Archived Paper," *Archives and Manuscripts,* 41:3 (2013): 177, http://dx.doi.org/10.1080/01576895.2013.841550.

16 Anastasia S. Varnalis-Weigle, "A Comparative Study of User Experience between Physical Objects and Their Digital Surrogates," *Journal of Contemporary Archival Studies* 3, art.3 (2016), http://elischolar.library.yale.edu/jcas/vol3/iss1/3.

Most participants agreed the digital photographs and buttons were a satisfactory alternative to the physical objects. These participants found no difference between the print and digital photographs. For more complex objects, perception of physical attributes did not always translate well into digital form. Users were surprised at the physical size, weight, or texture of an object when compared to its digital surrogate. This is important to note because some of the unique intrinsic qualities that the physical object contained were lost during digital translation.[17]

As an exemplar of a complex material object, Varnalis-Weigle let participants browse through and interact physically with a book, where it could only be apprehended visually, pages had to be turned, and so forth. Such interaction with complex objects raises another question: will digital surrogates of a complex object be able to replace the original, such as a photograph album whose pages also need to be turned in order to examine it thoroughly? Aleksandr Gelfand, argues that the digital experience cannot replace the physical one:

> Although there are obvious benefits to viewing exhibits online, no matter how advanced the technology, how well the online exhibit is designed, or how much information is available, nothing will replicate the evocative power or the experience of being in the presence of the original item; seen, created, or used by someone long since gone. Each page of a digitized photo album may be turned back and forth over and over again but it is only when the viewer is in the presence of the leather-bound original that they feel the strongest connection with its creator and his time period. Regardless of future technological advances, online curators will almost certainly fail to achieve this effect.[18]

17 Varnalis-Weigle, "Comparative Study," op. cit.,15-16.

18 Aleksandr Gelfand, "If We Build It (and Promote It) They Will Come: History of Analog and Di-

Whether the displayed object be the original or some kind of surrogate, and bearing in mind that the museum object is already "a substitute of reality,"[19] the visitor will, even in contact with an original, have a museologically-steered experience. Curators, designers and all those involved in putting on museum exhibitions are making a construct – the exhibition is a construct and a created experience. This doesn't necessarily imply that visitor will have the exact experience of exhibition that the museum staff imagined and designed for. But it does imply that users will experience exhibitions in their individual own way shaped by how the exhibition was constructed. The encounter with the object (authentic or not) on display, therefore, is already a construct and a surrogate of the past realities of an item's existence. Exhibitions are carefully designed with the goal of triggering both cognitive and emotional visitor reactions, then digitized elements participate in an even more removed and more managed, constructed and artificial experience than do original items. However, they necessitate a different kind of engagement and engender an interaction experience that is different from that with an original, but nevertheless authentic in nature – digital surrogates are more than an imitation of the physical original, they represent the transfiguration of the original and they enable different, but always real, experiences. Moreover, while interactivity with the records in the physical world and in the digital world may differ in some aspects some remain basically the same, such as the action of turning pages of photograph album.

Dudley notes that another notion of importance is that experience – physical and virtual – is dependent on context:

> Our experience of the material world is dependent upon our location, our movement and our interpretations of the data we receive from our senses. And of course, the interpretations we make of what we see, hear, smell, touch or taste are strongly influenced by our cultural and personal experiences and by pre-existing knowledge we may have about a particular object.[20]

gital Exhibits in Archival Repositories," *Journal of Archival Organization*, 11:1-2 (2013): 76, DOI: 10.1080/15332748.2013.882160.

19 Desvallées et al., "Exhibition," op. cit., 66.

20 Sandra Dudley, "Materiality Matters: Experiencing the Displayed Object," *UM Working Papers in Mu-*

“Records as Museum Artefacts” – A Pilot Study

In museums worldwide there are iconic documents on display[21] – documents that have a higher meaning and whose content transcends a literal contemplation of their text and becomes or invokes an important social idea. Many documents, including Magna Carta can be categorized as records,[22] and were specifically created as such many, but could secondarily be conceptualized also as artefacts. Also displayed are records whose creator was famous or important for some community in someway (for example, letters of an artist whose content would be better examined in a reading room, but when they are incorporated into an exhibition these letters serve as a connection to the person who has written them and as a connection and companion to the displayed artwork). Usually, exhibited documents could provide additional contextualization of the exhibition's theme or even present a piece of evidence of past events. Such records are situated in a liminal space between archival material and museum object in terms of their role in visitors' experiences of the exhibition and its overarching theme. Their mode of display will also affect the visitors' reception. What, therefore, is the best mode of display in order to trigger visitors' interest when using them in a museum exhibition? What modes of display might enhance or hinder that interest?

This research study sought to understand visitors' reactions toward archival railway records that were included in a museum display. These objects were placed in a sealed glass case and were of railway provenance

seum Studies, 8 (2012): 1.

21 Another original copyof Magna CartaexhibitedinSalisburyCathedralisadvertised on theCathedral'swebsite as follows: “The exhibition aims to deepen visitor understanding of this globally significant document and challenges visitors to think afresh about what Magna Carta's legacy of justice and freedom means to them in these modern times.” See Salisbury Cathedral Magna CartaExhibition, http://www.salisburycathedral.org.uk/visit-what-see/magna-carta-exhibition.The idea of what Magna Carta represents was reinforced in popular culture in 2013 when the music album entitled “Magna Carta…Holy Grail” by American rapper JayZ was launched at Salisbury. See http://www.salisburycathedral.org.uk/magna-carta/magna-carta-and-jay-z.

22 Records can be defined from many perspectives and the terms “document” and “record” are sometimes used simultaneously or interchangeably. In this research records are conceptualized as “persistent representations of activities or other occurrents, created by participants or observers of those occurrents or by their proxies; or sets of such representations representing particular occurrents” as defined by Geoffrey Yeo, in “Concepts of Record (2): Prototypes and Boundary Objects,” *The American Archivist,* 71:1 (2008): 136.

with significance to the overarching themes of exhibitions. The chosen study objects were of a routine nature and had no special “grand” societal meaning and were not connected to any particular publicly known person or specific community. The documents were displayed behind glass that made touching impossible within display cases placed in proximity to other exhibited artifacts. The study was conducted during three exhibitions organized or co-organized by the Croatian Railway Museum: *The First World War Line / Ogulin – Plaški – Vrhovine* (in 2014), *Railway Stations in Croatia* (in 2014/2015) and *Traveling Through Timetables* (in 2016). In line with Macdonald’s observation that “Different media ‘afford’ different kinds of audience relations and may also carry particular connotations,”[23] while preparing the online version of the *First World War Line* exhibition, issues arose regarding the originality, authenticity, visitors’ experience and digital delivery of content on a computer screen versus in physical space. The initial research intent was to analyse visitors’ interest in and reaction to documents displayed in their original form and presented digitally with the aid of digital technologies. Since the necessary technology was not available in all three exhibitions, the research plan was adjusted in such a way that later research could build on the findings of this study. Since the situations where documents were presented in various forms were not synchronized throughout, the outcomes of this research should be understood to be indicative only with further research needed in these aspects.

The study was conducted within an interpretive framework of directed behavioural studies which “…investigate specific aspects of visitor behaviour in exhibition, often, although not always, from a social psychological perspective.”[24] The main focus of the study was to investigate and analyse visitors’ reactions toward the displayed documents in order to understand how documents in their original form are perceived, what kind of exhibition design might trigger more powerful reactions, and whether experiences of the physical item might be replaced, complemented or enhanced by the use of surrogates. Other questions of interest were the following:

23 Sharon Macdonald, “Interconnecting: Museum Visiting and Exhibition Design,” *CoDesign*, 3, supp. 1 (2007): 154.

24 Macdonald, “Interconnecting,” op. cit., 151.

Do the documents in their original form of creation trigger any fetishistic reaction? What kinds of documents have that capability? What kind of presentation might influence visitor experience?

The methodology used in the study can be characterized as an applied ethnomethodological approach combined with quantitative inputs. The study applied a mixed methods approach involving a focus group, observations of visitors' behaviour during an exhibition, and questionnaires completed by visitors at the exhibition.

As an exploratory technique, a focus group was conducted in 2014 with 6 participants. The focus group was held in the museum and centred on documents (which later were displayed in the exhibition) in three formats – their original paper form, print or photographic reproductions of the same records, and digitized copies. The benefit of this semi-structured interview setting was that it was possible to observe the reactions of participants and their body language.[25] The focus group data was analysed immediately afterwards. Each participant's verbal statements were examined together with their non-verbal and actual behaviour towards the objects. The analysis then involved grouping basic thematic units into overarching themes. The findings[26] were used as guidelines to structure the next stage of the research: questionnaires given to the visitors in the three above-mentioned exhibition settings, with questions that could be answered in just three to five minutes. The reason behind this timing was the assumption that a visitor, after seeing the exhibits, would respond more intuitively in the few moments immediately following their exhibition experience. The questions were organized around issues of exhibiting originals and surrogates; preferences between the original, a quality physical reproduction and a digital surrogate; and the possibility of a virtual instead of a physical exhibition (see Appendix 1).

Having in mind that exhibitions are also social events that can turn an

25 Kirsty Williamson, "Questionnaires, Individual Interviews and Focus Group Interviews," in *Research Methods: Information, Systems and Contexts*, Kirsty Williamson and Graeme Johanson, eds. (Prahran: Tilde University Press, 2013), 364 ,https://www.york.ac.uk/media/sociology/interconnecting.pdf.

26 The preliminary findings of the first stage of this study were presented at the Archival Education and Research Institute (AERI2014) at the University of Pittsburgh School of Information Sciences, July 14-18, 2014.

attraction to the displayed objects into socializing among their audience,[27] the behaviour of visitors who were asked to fill in questionnaires was observed prior to conducting the survey. The main focus of the observation was directed toward visitors' behaviour in front of display cases. Ten seconds of *looking at* displayed items was determined as the timeframe needed for a visitor to even start the process of exploring the item. In total 98 visitors were surveyed, accompanied with short focused observations.

Some important contextual factors of this research are also indicators of the limitations of generalizability of the study results. All exhibited records, and those used in the focus group, were connected to the railway system in the past (created through the business processes of the railway companies or somehow thematically related to railway history). They had no overt artistic or aesthetic purpose or value, and some of them addressed specific technical processes. The population that is interested in such a specific theme tends to be somewhat limited within the greater population of museum goers.

In the next section, results of data collected in the focus group and questionnaires accompanied with observation will be presented consecutively, since the findings from the focus group were indicative and incorporated in the second part of the research.

Focus Group Results

The nature of the focus group interviews was broadly delineated in advance and intended to explore general responses to the exhibition overall as well as the visiting habits and more specific experiences of visitors; the role of records displayed as museum objects and their surrogates; and reflections on visitor preferences between originals, reproductions and presentation in some kind of digital form. More specific follow-up questions were asked in the focus groups as appropriate or relevant. Participants were recruited using snowball sampling and comprised a heterogeneous group, with each participant having different visiting habits and levels of

27 Kevin Coffee, "Audience Research and the Museum Experience as Social Practice," *Museum Management and Curatorship*, 22:4 (2007): 377-389, DOI: 10.1080/09647770701757732, 377.

interest in attending exhibitions. During the group session, after the questions had been asked, a free-flowing conversation developed. As the conversation evolved, major themes emerged and there was even agreement among the whole group around these themes. Notes were taken of both the participants' responses and also on their observed behaviour.

Responses (Verbal)

- both original and copies (reproductions, facsimiles and digitized surrogates) are equally appreciated but their presentation is very important
- how documents are presented is understood to be a result of the creation process and the creative expression of the curator and exhibition designer
- digitized objects are seen as interesting only if presented in an interactive manner and when they have additional educational characteristics (e.g., ability to learn more, ability to play), and are contextualized
- exhibiting originals: it is interesting to see the original format (participants considered that digitized items are unable to represent the original format well)
- emotional aspects: "atmosphere cannot be achieved with digitized material," "the digitized item is more for the archive and historians"
- including records in exhibitions – only if they contribute to the story of exhibition, "as additional contribution to artefacts"
- If the original that is displayed has high cultural value then it cannot be replaced with a surrogate of any kind.

The overarching themes that emerged were the importance of presentation, ability to play, and ability to touch. All of these aspects could influence visitors' perceptions and reactions in the exhibition while aspiring to create and guide experience. Without careful consideration of these aspects, textual records are unlikely to arouse cognitive or emotional interest. There are two exceptions, however: records that have a *grand aura* attached to them (as in a case of Magna Carta as record with iconic status) and personally relevant records (as with a family photo archive that many people keep at home). Although records used as samples in this research were not specific in this respect, and the topics of the records weren't of great interest to any of the participants, it was very indicative that each participant examined the records and wanted to hold them in their hands, even though some details would have been more visually accessible in digitized form where there was the possibility to enlarge and zoom into details.

Observed Behaviours (Non-verbal)

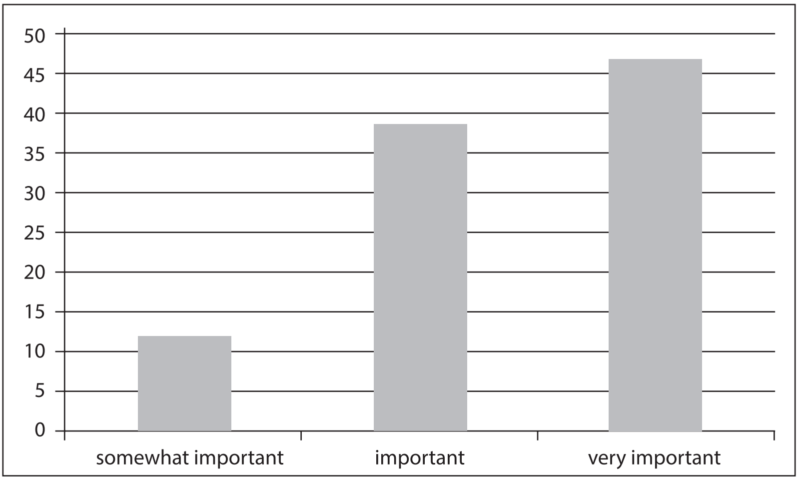
Each participant had an opportunity to look at the records that were used as examples for discussion. However, they did not express any wish to do so until they were offered the chance to hold them. Each participant wanted to hold and examine them. They looked at details on the front and the back of items, or browsed through the pages of an album and a manuscript. No one approached the screen to examine digitized items.

Survey Results

The results of the 98 visitors surveyed in the exhibition settings indicated discrepancies between visitors' rationalizations, verbal expressions, and actual behaviour (Table 1). 47 visitors stated that exhibiting originals is very important, 39 considered it to be important and 12 somewhat important. No one answered that exhibiting an original has no importance. On the question, "If the original is not available for exhibition, do you prefer a surrogate in the form of a replica or in a digitized form?" 76 visitors answered that a replica is more suitable and 22 stated they would prefer to view a digitized image presented using contemporary digital technology. In the specific case of exhibiting photographs and documents,71 answered that they would prefer the original, 19 would prefer a quality print reproduction, and only 5 would prefer a digitized version. Finally, to the question, "Can an online exhibition replace a physical exhibition?" 26 visitors answered affirmatively, 51 answered negatively and 21 considered it possible in some respect.

Because of the techniques employed in this study and its overall technical operationalization, the reasons why a visitor prefers one over another could not have been researched in depth. More insight was gained by observing visitor's behaviour, however.

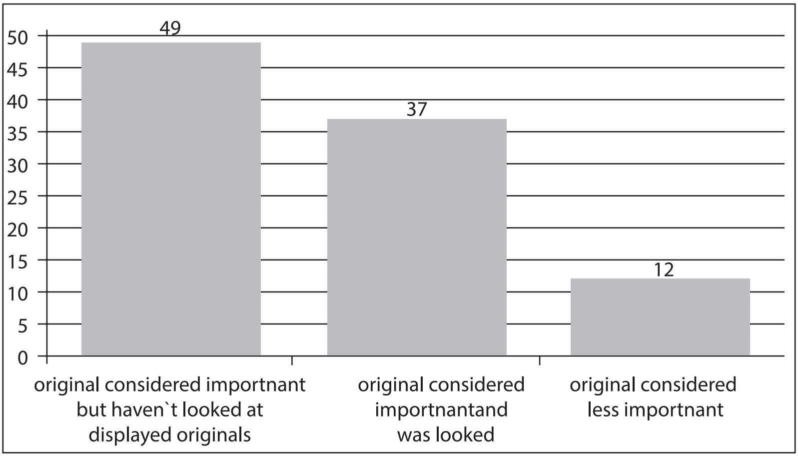
Table 1 "Is it important to exhibit originals at the exhibition?" N=98



Results of visitor observation

The primary importance of exhibiting originals is questioned by the results that emerged from focused observation of visitors' behaviour. Within the designated 10 seconds of looking at displayed items, only half of those visitors who answered that exhibiting originals is important actually looked at records that were on display. Observation was prolonged in some cases to see whether visitors returned at some other point during the visit to look at the digital items, but there was no evidence of this. The discrepancy between visitors' written statements in the questionnaires and their actual behaviour cannot be explained in depth without more research (Table 2).

Table 2 Focused observation: 49 visitors who stated that exhibiting originals is important did not look at the originals on display



Discussion

Why then exhibit records that have no high cultural and historical value, no matter how important they are to the contextualization of the exhibition topic, if they are not looked at all? The comparison of the focus group results with the findings from visitors' behaviour at exhibitions suggest that the central problem is the issue of not being able to touch the items and thereby experience their materiality.

While the participants in the focus group did not verbally declare their interest in the records that were displayed, each touched them, turned them over to see both sides and engaged in some kind of interaction. The visitors in the exhibitions didn't have that opportunity and were only able to have a visual encounter with the items without other kind of possible experiences which would, possibly, stimulate their interest in the displayed items.

The shift from real objects to real experiences in museums started several decades ago with the realization of how important exhibition design is for creating an environment which, while it will always be highly constructed, will allow for interaction, participation and discovery, and will encourage cognitive and emotional interest. Sandra Dudley reinforces this point when she asks:

If museums seek to reduce this distance between person and thing, if displays and interpretations are constructed in such a way as to facilitate a wider or deeper sensory and emotional engagement with an object, rather than simply to enable intellectual comprehension of a set of facts presented by the museum and illustrated or punctuated by the object, might visitors actually be enabled to appreciate more aspects of the object and its story?[28]

By criticizing the solely informational over material aspects in the perception of the object, Dudley asserts that objects should act as more than just illustrations to an overarching theme, idea of the exhibition, or illustrators of the story. The two-dimensional form in which most records are created often prevents their materiality bring seen to be one of the factors that might influence visitors' perceptions and reactions.

Since interactivity with records in the open space of an exhibition without the kinds of mechanisms used in a reading room for monitoring handling is difficult to achieve, and since the originals displayed in a glass cases (in these exhibitions in which the research was conducted) were not even looked at, the possibility of digital interaction (both in exhibition space and on-line) seems to be the way to achieve the desired *play* moment. Touch, as one of the sensory modes of exploration of an object that enables interaction with an object on one level can produce playful moments. Can these moments be transferred into the digital context?

However, in the moments when participants of the focus group interacted with original records it was the materiality of the items that attracted them. As Dudley notes, these "... material qualities of object – their shape, colour, density, weight, texture, surface, size and so on – define our sensory responses to them."[29]

The reason why surveyed visitors highlighted the importance of exhibiting originals of photographs and old documents even though most of them paid no attention to them could be because interaction in the form

28 Dudley, "Materiality Matters," op. cit., 3.
29 Ibid., 1.

of touch hadn't be allowed and therefore the materiality of the objects couldn't be experienced in the same way as it had by participants in the focus group. Other reasons might be the lack of interest in the specific kinds of technical documents of railway provenance that were exhibited combined with the desire to experience the playful moments present in the railway imaginary. For example, visitors might prefer to see models of railway vehicles in movable condition on a model railway set with buildings, as opposed to seeing a technical plan of a railway vehicle. As a solution, a museum might create a type of "discovery room" as part of its exhibition, where visitors in a monitored environment similar to an archive reading room could examine documents in their original form of creation. Another approach might be to concentrate not on the original and its authenticity of form, but on interactive moments that are possible in digital systems. Only 5 out of 98 visitors indicated that they would prefer digitized surrogates but this cannot be a conclusive result since there is a need for further research where digitized items would be presented using interactive elements and in a design focused on enhancing the experience. Again, the goals of museum exhibition are multifaceted and nowadays their realisation is mostly oriented toward visitors and their expectations. When Sandra Dudley calls for return to materiality of an object,[30] she finds the fullest potential of an object and a visitor's experience to reside in their mutual engagement.

Conclusion

To conclude then, any comparison between originals and surrogates is relative since the experience of the engagement with both media is different. The findings of this research suggest that there is certainly value in exhibiting original records, but only if they are presented in a way that allows some kind of interaction, with the exception of documents of high cultural and historical value that tend to have a life of their own.

30 Ibid., 5.

The phenomenon of declaring interest in displaying original records at exhibition but then not actually looking at them and stating non-interest in specific records yet wishing to examine them by holding them in one's hands rather than wishing to examine them at all in a digitized version deserves more in-depth research that would explain why certain choices are made and what might be possible implications for exhibition practices.

References

Ardley, Barry and Richard Voase. "Magna Carta: Repositioning the Secular as 'Sacred,'" *International Journal of HeritageStudies,* 19:4 (2013): 341-352.

Coffee, Kevin. "Audience Research and the Museum Experience as Social Practice," *Museum Management and Curatorship*, 22:4 (2007): 377-389, DOI: 10.1080/09647770701757732.

Desvallées, André, Martin Schärer and Noémie Drouguet. "Exhibition," in *Fundamental Concepts of Museology*, François Mairesse, André Desvallées, Bernard Deloche et al., eds., *ICOFOM Study Series, Working Papers,* 38 (2009): 57-90, http://network.icom.museum/fileadmin/user_upload/minisites/icofom/pdf/ISS%2038-2009.pdf.

Dever, Maryanne. "Provocation on the Pleasures of Archived Paper, "*Archives and Manuscripts,* 41:3 (2013): 173–182, http://dx.doi.org/10.1080/01576895.2013.841550.

Dudley, Sandra. "Materiality Matters: Experiencing the Displayed Object," *UM Working Papers in Museum Studies,* 8 (2012): 1-9.

Gelfand, Aleksandr. "If We Build It (and Promote It) They Will Come: History of Analog and Digital Exhibits in Archival Repositories," *Journal of Archival Organization*, 11:1-2 (2013): 49-82, DOI: 10.1080/15332748.2013.882160.

Gilliland, Anne J. and Marika Cifor, eds. special issue, "Affect and the

Archive, Archives and Their Affects," *Archival Science,*16 (2016).

Latham, Kiersten F. "Numinous Experiences with Museum Objects," *Visitor Studies,*16:1 (2013): 3-20, DOI: 10.1080/10645578.2013.767728.

Latham, Kiersten F. "What is 'The Real Thing' in the Museum? An Interpretive Phenomenological Study," *Museum Management and Curatorship,* 30:1 (2015): 2-20.

Latham, Kiersten F. "Psychological Flow and the Numinous Museum Experience," *UM Working Papers in Museum Studies,* 11 (2016): 1-15.

Macdonald, Sharon. "Interconnecting: Museum Visiting and Exhibition Design," *CoDesign,* 3, supp.1 (2007): 149-162.

Varnalis-Weigle, Anastasia S. "A Comparative Study of User Experience between Physical Objects and Their Digital Surrogates," *Journal of Contemporary Archival Studies,* 3, art.3 (2016), http://elischolar.library.yale.edu/jcas/vol3/iss1/3.

Williamson, Kirsty. "Questionnaires, Individual Interviews and Focus Group Interviews," in *Research Methods: Information, Systems and Contexts*, Kirsty Williamson and Graeme Johanson, eds. Prahran: Tilde University Press, 2013, 349-372, https://www.york.ac.uk/media/sociology/interconnecting.pdf.

Wood, Helen. "The Fetish of the Document: An Exploration of Attitudes towards Archives," in M. Procter and C.P. Lewis, eds. *New Directions in Archival Research.* Liverpool: Liverpool University Centre for Archive Studies, 2000, 20-48.

Geoffrey Yeo. "Concepts of Record (2): Prototypes and Boundary Objects," *The American Archivist,* 71:1 (2008): 118-143, https://doi.org/10.17723/aarc.71.1.p0675v40tr14q6w2

Acknowledgements

I would like to thank Franjo Janko for assisting with the statistical analysis of the questionnaire data.

Appendix 1: Visitors' questionnaire

(Q1) Please select your age:

- o 18 - 24
- o 25 - 34
- o 35 - 44
- o 45 - 54
- o 55 - 64
- o 65 - 74
- o 75 and more

(Q2) Displaying original items at museum exhibition is:

- o Very important
- o Important
- o Somewhat important
- o Isn't important at all

Please select one answer

(Q3) If original item is not available I prefer to see:

- o Replica of an item
- o Digitized item presented through contemporary Information and Communication technologies

Please select one answer

(Q4) Old photographs and documents at exhibition I prefer to see:

º In the original

º In quality reproduction

º Digitized and presented through contemporary Information and Communication technologies

Please select one answer

(Q5) In this case could virtual exhibition replace the one in physical space?

º Yes

º No

º Yes, in some parts (please state which)

IZLAGANJE IZVORNIH ILI ZAMJENSKIH DOKUMENATA NA MUZEJSKIM IZLOŽBAMA
STUDIJA SLUČAJA

Ključne riječi:
izložba, muzej, izvornik, dokument, reprodukcija

Sažetak

U radu se ispituju načini na koje posjetitelji percipiraju arhivsko gradivo prilikom njegovog izlaganja na muzejskim izložbama u njegovom izvornom obliku ili u nekom od zamjenskih oblika. Kakvo zanimanje potiču izloženi dokumenti kod posjetitelja i kako se to zanimanje iskazuje? Iskazuju li posjetitelji emocionalne reakcije? Do koje se razine fizička interakcija posjetitelja s predmetom može zamijeniti digitalnom interakcijom? U ovom se radu predstavljaju i analiziraju rezultati pilot istraživanja "Dokumenti kao muzejski predmet" u kojem su korištene različite istraživačke metode i tehnike uključujući fokus grupu, anketni upitnik i fokusirano promatranje reakcija posjetitelja. Rezultati upućuju da je potrebno više pažnje posvetiti dizajnu izložbenog postava prilikom izlaganja dokumenata kako bi se naglasila njihova materijalnost te ujedno omogućilo dodatno iskustvo kroz interakciju s digitalnim reprodukcijama.

IV

Digital Transformations and Provenance

DIGITAL EFFECTS-BASED TRANSFORMATIONS IN HERITAGE PRACTICES AND KNOWLEDGE WORK[1]

Rimvydas Laužikas
Faculty of Communication, Vilnius University, Vilnius, Lithuania

Keywords:
cultural heritage, digital culture, network society, metaphors

Abstract

The rapid spread of IT has brought major changes in the development of society. Investigations in the business sector enable us to discuss new conceptualizations of heritage as well as changes in how heritage functions in society and heritage practices and knowledge work in the overall context of digital culture. In this context, heritage is contemporized: it functions not so much as knowledge of the past, but more like an element of present culture. Thus the line is being erased between heritage (which belongs to the past and represents past culture) and contemporary culture. This article discusses elements of digital culture that are important for heritage practices and knowledge work: textuality and visuality, openness and closedness, textual and object-oriented approaches, concentration and decentralization, expertness and crowdsourcing, static nature and interactivity, one-directional communication and participation, gamification, and so forth.

1 This article was prepared as part of *CA COST Action CA15201* "Archaeological practices and knowledge work in the digital environment". The article is based on the lecture "Heritage as the present: cultural heritage transformations in the digital culture" which was given at the University of Zadar Conference and School on Authority, Provenance, Authenticity, Evidence in October 2016.

Introduction

Information Technologies (IT)[1] that were developed at the end of the 20th century created new opportunities in many fields of application. But more importantly, the rapid spread of IT caused major changes in the development of society. In scholarly research discussing the impact of digital IT on heritage practices and knowledge work, their technological value is normally emphasized – the use of digital hardware and software. Far less attention is paid to the social aspects of the impact of IT. Such an approach (technology "exaltation") is not a sufficiently accurate representation of changes in social realities that happened in the last decade and can become the reason for inaccurate and incorrect decisions of a strategic or tactical nature. Sometimes we get the impression that in heritage sector projects, goals and social context are perceived superficially and projects are treated as a way to obtain project funds. The implementation of ideas is limited to the transfer of heritage objects to digital space, the creation of games in the style of a "test" or "puzzle", and the "placement " of IT tools (e.g., touch screens) in museum exhibitions, under the assumption that such decisions by themselves will automatically make heritage attractive to a modern person. Unfortunately, in most cases this does not happen and parts of the projects, according to John Palm, become "black holes".[2]

Analyzing the impact of digital technologies on the heritage sector, we should pay attention to a slightly different, less technologized chain of reasoning: from IT development to a society changed because of IT impact to heritage practices and knowledge work in and for this changed society. It is interesting that these changes (in the sense that "something is wrong") were addressed through the work of lot of scientists and business consultants at the end of 20th – beginning of 21st centuries (e.g., applying the

1 The synonymous term "Information and communication technologies" is also used in these contexts. The difference between "information" technologies and "communication" technologies could be perceived, however, as the difference between previous digital information management (e.g., digital computing) and analogous communication (e.g., analogous TV or telephony) technologies. This difference isn't important now, when all technologies are digital.

2 Jonas Palm. "The Digital Black Hole". *Training for Audiovisual Preservation in Europe*, 2005, http://www.tape-online.net/docs/Palm_Black_Hole.pdf.

concepts of "experiences economy",[3] "the cultural turn",[4] "post-modern society"[5] and "post-post modern society"[6] or "BRANDchild"[7]). However, only a few researchers related their changes to the social impact of digital IT, and in this context of changing societies, perhaps the most important are the works of Manuel Castells. According to Castells, the end of the 20th century – beginning of the 21th century can be seen as a kind of "breaking point", the transition between the old "industrial" and the new "network" society.[8] These changes could be compared with the processes that took place in Europe in 15th – 19th centuries. In those times, in different countries at different points, the old, agrarian (pre-industrial) society began to crumble and the formation of a new "industrial" society began to form. Technologies based on human and animal power, well-being based on land management, and class society organized hierarchically according to origin were changed by technologies based on steam, electricity and the internal combustion engine. In both pre-industrial and industrial societies well-being was created based on added value and society was organized hierarchically, according to economic characteristics (property). These changes, which lasted more than 400 years, affected all economic, political and cultural processes of Europe and the world. Modern changes, where mechanical machines are changed by digital devices, the highest added value is created in the information and services sector, and society is "flattened"[9] and the world is turned into a "global village,"[10] are much faster. They fit chronologically into a person's life and create additional tensions

3 Joseph B. II Pine and James H. Gilmore. "Welcome to the Experience Economy". *Harward Busines Review*, July-August issue (1998), https://hbr.org/1998/07/welcome-to-the-experience-economy.

4 Fredric Jameson. *The Cultural Turn: Selected Writings on the Postmodern*. Brooklin: Verso, 1998.

5 Mark Jacobs and Lynette Spillman. "Cultural sociology at the crossroads of the discipline". *Poetics* 33.1 (2005): 1–14.

6 Joel Bakan. *The Corporation: The Pathological Pursuit of Profit and Power*. New York: Free Press, 2004.

7 Martin Lindstrom. *BrandChild: Remarkable Insights into the Minds of Today's Global Kids and Their Relationship with Brands*. London: Kogan Page Publishers, 2004.

8 Castells, Manuel. *The Information Age: Economy, Society and Culture.* Trilogy, *Vol. I-III, "The Rise of the Network Society", "The Power of Identity", "End of Millennium". Cambridge, MA; Oxford, UK: Blackwell, 1996-1998.;* Castells, Manuel. *Communication power*. Oxford/New York: Oxford University Press, 2009.

9 Thomas Friedman. *The World is Flat*. New York: Farrar, Straus and Giroux, 2005.

10 Marshall McLuhan. *The Gutenberg Galaxy: The Making of Typographic Man*. Toronto: University of Toronto Press, 1962.

in studies and labor markets and in so-called "generation conflicts".[11]

In this context, IT are new and beneficial means to implement heritage communication, but the interpretation of heritage itself and communication can occur equally in the real world and in the virtual space. The success of this communication depends not so much on the use or non-use of IT, as on the specific features of the changed world and awareness of the information behaviors of modern (networking) people. This means that heritage interpretations executed in both the virtual and the real world and heritage communication products which are being created will be used in contemporary culture, not according to how much IT will be applied in them, but according to the extent to which they correspond with the world-view and needs of a changed society.

The main problem that is explored in this discussion article is the idea that the coordination of new opportunities and needs is particularly important for the public sector (i.e., state-funded or non-profit organizations serving the needs of the public) heritage preservation, communication and memory institutions (e.g., museums, archives), whose direct function is the provision of heritage and information services to the public. These services are understood as an activity or benefit that public sector institutions can offer to the public. They are intangible and cannot become a property. Thus, in terms of heritage practices and knowledge work, society invests funds in order for certain real objects to be selected and preserved in order to use them further in the culture. In terms of the relationships between society and memory institutions, it is important that society, transformed by the impact of IT from an industrial society into a networking society, promotes change within heritage preservation institutions, museums, archives and libraries that addresses the needs of the new, networking society.

In the face of this challenge, quite a big part of the professional community (not only in the academic community, but also among heritage professionals, politicians, businessmen and others engaged with culture) is lost. Many of the theorists dealing with the application of digital

11 William Strauss and Neil Howe. *Generations: The History of American's Future, 1584 to 2069.* New York: Morrow, 1991.

technology in heritage practices and knowledge work still think in the way people thought in industrial society. For them the computer is not a reality-changing instrument, but rather only one more "new machine" that considerably increases productivity. Applied models, methods, habits, concepts, and characteristics of the industrial society that were active and helped, several decades ago stopped working or do not work like they used to. Digital technologies are often accused "per se" of preventing them from working and "active resistance" actions are taken. However, when "fighting" for or against technologies, we often do not notice what is going on "beyond the technologies". When trying to look at the changes which took place at the junction of the 20th – 21st centuries, we can see that the rhetoric of opponents and proponents of digital technologies are somewhat similar to a century-old rhetoric about benefits and risks of a car (e.g., the Locomotive Act, active in Great Britain from 1865 to 1896, required that when the vehicle drove in the city, there had to be a man with a red flag going in front of it). Humanity's past shows that we are social, communicative beings; therefore, the inventions that facilitate communication usually overcome the prohibitions. In this case vehicles were stronger than "the man with the flag". How will digital IT evolve and change the world?

The main objective of this discussion article is to debate the impact of digital effects on transformations in heritage practices and knowledge work. In a sense it is a continuation of the debate on the nature of scholarship in the digital environment that began at the end of the 20th century[12] and the many discussions of a "futurological" nature that take place nowadays.[13] This discussion article aims more to summarize the current trends, discuss the possible "vectors of alternation" in heritage practices and knowledge work, and raise questions, than to provide the final answers, because "good questions create new territory of thinking".[14]

12 E.g. Costis Dallas. "Humanistic research, information resources and electronic communication". In *Electronic Communication and Research in Europe*, edited by J. Meadows, H. D. Boecker, 209–239. Luxembourg: European Commission, 1999.

13 Peter Robinson, Paul Turnbull, Alan Liu and Willarad McCarty. "Research Futures". In *Advancing Digital Humanities*, edited by P. Longley Arthur, K. Bode, 243-322. New York: Palgrave Macmillan, 2014.

14 Kevin Kelly. *The Inevitable*. New York: Viking, 2016, 288-289.

Technology and Society: The Concept of Digital Culture

Different researchers define interconnections between technologies and society according to different theoretical concepts. One type of discourse is more focused on technological dimensions (e.g., the internet and 3D, augmented, extended or virtual realities). The typical example of these concepts could be the discourse of "technology transfer", which describes the processes of transferring technology from the places and groups of its origination to wider distribution among more people and places[15] – a strategic variable for companies and nations coping with these challenges in a global economy.[16] Another type of discourse puts more focus on the cultural or even philosophical (e.g., the concepts of "chaosmosis"[17] or "semiosphere"[18]) societal dimensions. Between both these discourses we can find a lot of "techno-communicative" ideas, theories and models that explain relationships between technology and society, such as innovation diffusion[19] or cultural innovation filters.[20]

In the context of this article there can be a viable model of interaction between technologies and society, according to which technology and social interaction can be described as a dynamic transformation happening in space and time, ongoing "from curiosity to necessity" (similar to the Gartner Hype Cycle for Emerging Technologies idea[21]). The starting point of these transformations can be called the emergence of technology (Gartner's "Technology Trigger") and its end point – the moment when the majority of society cannot imagine life without this technology (Gartner's "Plateau of Productivity"). Unlike the Gartner Hype Cycle which is more linear, unified

15 Robert Grosse. "International Technology Transfer in Services". *Journal of International Business Studies* 27.4 (1996): 781-800, doi:10.1057/palgrave.jibs.8490153.

16 David B. Audretsch, Erik E. Lehmann and Mike Wright. "Technology transfer in a global economy". *The Journal of Technology Transfer* 39.3 (2014): 301–312, 2017, doi: 10.1007/s10961-012-9283-6.

17 Felix Guattari. *Chaosmosis an ethico-aesthetic paradigm*. Bloomington: Indiana University Press, 1995.; Rafal Ilnicki. "Technicyzacja jako wirtualizacja kultury w perspektywie ontologii wirtualności". In *Wirtualizacja. Problemy, wyzwania, skutki*, edited by L. Zacher, 355-376. Warszawa: Poltext, 2013.

18 Yuri M. Lotman. "On the semiosphere". *Sign Systems Studies* 33.1 (2005): 205-229, http://www.flfi.ut.ee/sites/default/files/fl/lotman_2005_on_the_semiosphere.pdf.

19 Everett M. Rogers. *Diffusion of innovations*. New York: Free Press of Glencoe, 1962.

20 E.g. Keith Goffin and Rick Mitchell. *Inovation Management: Strategy and implementation using the pentathlon framework*. New York: Palgrave Macmillan, 2010: 17.

21 "Gartner Hype Cycle". *Gartner Inc.*, 2017, http://www.gartner.com/technology/research/methodologies/hype-cycle.jsp.

and clearly limited in time, the interaction of technology and society "from curiosity to necessity" is more based on networked and dynamic interconnections between many variables: the technology, the historical period, state policy, public cultural patterns, and so forth. For example, in 1885-1886 the car was designed "as a curiosity" but it became "a necessity" in Lithuania only in ~1998-2000. Meanwhile, in 1974-1976 personal computers appeared in Lithuania, but only became "a necessity" in 2005-2007.

In such a context of networked interaction between digital technology and public, the new phenomenon of digital culture is formed. This article follows the classic (known since ancient times[22]) concept of culture, relating it with human intellectual and physical activity and, thus, delimiting it from nature (lat. "natura"). In this context, culture is everything that is created by human hands and mind (what does not come from nature, is not natural). Therefore, digital culture includes all things (as in the meaning of Thing within CIDOC-CRM[23]), created by human hands and mind through digital technologies (digital artefacts) and phenomena encouraged by these digital artefacts. At this point it should be noted that, when speaking in the contexts of digital culture, we need to refuse the attitude of treating the "virtual" (digital) world and the physical (not-digital) reality, as an opposition between "false" and "real" worlds. We should instead perceive all elements (digital, virtual and real) as different in terms of their technologies and media (e.g., the digital world is discrete and the physical world continuous) but tangled in the same blended elements of reality.[24] The start of digital culture's formation can be defined chronologically differently in each country or region, through when digital technologies become "a necessity". This can be formally measured by the penetration of computers into households of particular countries, establishing the criterion for "necessity" as being when "more than 50 percent households have computers".

22 David J. Greenwood and William A. Stini. *Nature, Culture, and Human History*. New York: Harper and Row, 1977.

23 CIDOC-CRM. Definition of the CIDOC Conceptual Reference Model, Version 6.2.2. ICOM/CIDOC CRM Special Interest Group, 2017: 33, http://www.cidoc-crm.org/sites/default/files/2017-01-25%23CIDOC%20CRM_v6.2.2_esIP.pdf.

24 Lech W. Zacher. "Człowiek utechniczniony i zwirtualizowany w hybrydowym świecie". In *Wirtualizacja. Problemy, wyzwania, skutki*, edited by L. Zacher, 111-128. Warszawa: Poltext, 2013.

The General Model of Societal Evolution

The general model of societal evolution was developed as part of the investigations of the Dubingiai microregion (1st-16th century AD) in Lithuania.[25] The model's theoretical basis is in accordance with Ilya Prigogine's systems theory approach, which states that social structures and organizations are open evolving systems.[26] But unlike continuous evolution (based on Charles Darwin's ideas), Prigogine's systems theory states that each system goes through periods of continuous development (the predicted evolution) and sudden shock periods (unpredictable mutations). Each mutation can lead to both positive and negative changes in the systems, and the strength of the impact of mutations on the system depends on its "saturation". The system becomes dependent on mutation (vulnerable), not so much due to external, but more to internal reasons. During every period (equivalent to evolution and mutation) the system changes at a different speed, but only during continuous evolution are the changes predictable. According to Prigogine, the changes that occurred during evolution and mutation take place in accordance with an objective time arrow and the changes and the processes in the system are irreversible.

According to Prigogine's systems theory, two public "life-cycle" periods – continuous development and mutations – constitute one cycle in societal development. The beginning of a cycle can be considered to be the first manifestations of mutagenic factors in a society that is open for change, and the end of the cycle – the final stage of societal evolution – comes when it again becomes open for change. While modelling societal evolution during the continuous development period, it was assumed that population size is one of the most important social system parameters.[27] Therefore, population size was selected as the starting point for the process, and popu-

25 Albinas Kuncevičius, Rimvydas Laužikas, Rimantas Jankauskas, Renaldas Augustinavičius, Ramūnas Šmigelskas. *Dubingių mikroregionas ir Lietuvos valstybės ištakos*. Vilnius: Petro ofsetas, 2015.; Jurgita Lapienytė, Marius Jokūbaitis. "Ką verslūs lietuviai padarė iš „Uber": veikia kaip taksi su „centriuku"". *15 min*, March 5, 2017, http://www.15min.lt/verslas/naujiena/transportas/ka-verslus-lietuviai-padare-is-uber-veikia-kaip-taksi-su-centriuku-667-762942.

26 Ilya Prigogine and Isabelle Stengers. *The End of Certainty*. New York: Free Press. 1997.

27 Colin Renfrew and Paul Bahn. *Archaeology: Theories, Methods and Practice*. London: Thames & Hudson, 1991: 421.

lation growth was recognized as the main stimulating force of the evolution process, which according to theoretical calculations during historical times (up to the end of the Middle Ages) was on the average 0.1 percent per year,[28] while at the end of the 20th century population growth even reached 3-7 percent per year in some countries.[29] The trends of diminishing societal evolution cycles can be partly explained by the acceleration of population growth. It should be noted that, according to the general society "life cycle" theoretical model, population number is not only a starting point, but also the result of the whole cycle, i.e., at the end of the cycle (when the system is stabilized after mutation) the new cycle must begin with a changed (compared with the end of previous cycle) demographic situation ("demographic leap" or "demographic decline"), which stimulates the repetition of the modelled cycle at a qualitatively different level (basically a spiral), when population number is once again evenly growing.

According to Prigogine, during the periods of continuous evolution of the system – the population growth stimulates continuous economic development, as a growing community needs more resources (food, fuel, etc.), bigger living space, and so forth. We can assume that firstly the development is carried out inwardly by using internal community resources. Therefore, sooner or later the extensive development opportunities had to be exhausted, and a certain limit would be reached when there would be "saturation" of society as the system declines, because it cannot adequately respond to challenges and becomes open to changes (society is weak, vulnerable to the external mutation factors). Under these circumstances, the society from the previous evolution cycle of continuous development period goes into the new development cycle – a period of mutation. Due to the internal features of the system (low "saturation"), it is "shaken" by "mutagenic factors" – characteristic of a specific area and specific time. Because of the complex mutagenic effect, the society goes through a "shock phase" – it changes quite fast. During the stabilization ([self] stabilization) phase the mutational changes are "reinforced" and they become

28 Ibid.: 400.

29 World Population to 2300. New York: United Nations, 2004: 41, http://www.un.org/esa/population/publications/longrange2/WorldPop2300final.pdf.

part of the system (self). There is an assumption in the model that the first link, where mutational changes occurred in historical times and were reinforced, was the economy. This model describes the social development through social capital theory,[30] where the two most important elements of the social structure are personal relations and social interactions. Personal relations – frozen social capital – is an interrelation of two or more persons, based on commonality, love, solidarity, professional interaction, etc. Social interactions – activated social capital – are common acts of two or more people, practices or any other behaviors intended to affect or co-ordinate the experience or intentions of other persons or groups. Mutational and economic changes cause changes in personal relationships and social interactions. Therefore, the new social structure emerges through territory divisions, the emergence of new centers, other territorial structures, formation of road networks, etc. Finally, changes that took place are reinforced through worldview and religious reform. Religion here acts as "social glue", it restores the social capital level reduced during the mutation period and makes the society once again resistant to mutagenic factors, thus beginning the new period of continuous development.[31]

The application of the model created according to historical research can be limited for modern society. However, we can justify the application possibilities of this model by the argument that the main component of the model – population change – is recognized as one of the most important contemporary challenges and a factor in global problems in various contexts (society aging, migration, distribution of resources, environmental protection, etc.). However, when talking about the performance of the model in today's society, we must note that in "linearity vs. networking discourse" (later this issue is addressed in more detail), not all levels of the "mutation period" could be investigated similarly. We can assume that in modern society, the model does not function in such a linear, chronological way (from economic changes to the "new religion"), as it at least partly did in past societies, and the relationship between the model components

30 Pierre Bourdieu. "The forms of capital". In *Handbook of Theory and Research for the Sociology of Education*, edited by J. Richardson, 241-258. New York: Greenwood, 1986.

31 Daniel B. Lee. "Ritual and the Social Meaning and Meaninglessness of Religion". *Soziale Welt* 56.1 (2005): 5-16.

in modern times is not so much linear (linear character sequence) as it is networked, when a “jump” is possible from one element to another, bypassing some of the intervening elements. For this reason, the functioning of the model in this article is illustrated as a bit fragmented. Some elements of the model are disclosed more accurately while others are less visible.

Discussing digital effects-based transformations in heritage practices and knowledge work we can assume that the current period is the “mutation” stage as presented in the general model of societal evolution. In this case, we can formulate the hypothesis that the differences of past (industrial society) and future (network society) can be seen in modern conflicts, which can be seen as “new” and “old” junction markers (certain “markers of changes” between industrial (“past”) and network (“future”) societies).[32] Empirical analysis of these conflicts makes it possible to at least partially understand the changes taking place in society, present and future challenges, and some of the possible development trends, as well as to “draw the vectors” of future heritage practices and knowledge work, which could be expressed as metaphors. According to this approach, the research pattern (based on the general model of societal evolution) could be designed. Therefore the model‘s application and pattern is reminiscent of Mendeleyev’s periodic table patterns – in which some cells are left empty in the hope that they will be filled or not filled in the future by simultaneously questioning or verifying the model. Some ideas presented in this pattern have been developed (especially on a philosophic level) before the spread of digital technologies. Such trends only strengthen the arguments about the process of interactive interaction of technology and society (which basically is a “chicken and egg dilemma”), where on the one hand, technologies change society, and on the other, ideas that spread in society have an impact on the emergence of new technologies. Furthermore, the application of this model does not mean a goal to accurately predict the future reality. It is more about identifying trends, which are close to Kevin Kelly’s “inevitable” ideas.[33]

32 The examples of these conflicts could be: French taxi drivers’ anti-Uber strikes; the lawsuit of Google Books; cautions about social networking and the information wars waged by ISIS and Russia; discussions about the future of printed books; concerns about the reading skills of millenials and so forth.

33 Kelly, *The Inevitable*.

1st Conflict: from Ownership to Sharing Economy

Karl Marx, in his theory of capitalism, formulated the class society concept,[34] which is clearly visible in industrial society. In a wider context of "class", as a social group, there is a distinct divide in the industrial society between the minority that has some form of power and the majority that has not: the factory owner and his workers, politician and voters, teacher and students, writer and readers, the bus driver and passengers, experts and the general public, and "market old-timers" and "market beginners". In this society, we find stable hierarchical structures on top of which is an "outstanding" person or group of persons with the power to execute over "lower" levels.[35] Meanwhile, in the digital culture that is formed in a networking society, according to Thomas L. Friedman, "the world is flat".[36] Social networks and blogs enabled every individual to become a writer, editor and publisher, Uber – taxi driver, You Tube – screenwriter, director, cameraman, actor, Spotify – the owner of incredible amount of music collection, Airbnb – the hotel manager. Such terms appeared as "open access", "open source" and the "sharing economy".[37] Immediately there were conflicts, ranging from taxi drivers protesting Uber[38] and the reaction of institutionalised business towards the "sharing economy" to government "resistance" by criminalizing the "sharing economy" and its related activities, clearly identifying them as "piracy" and "tax evasion". The axis of these conflicts is the "flattening of the world" (i.e., of the power division between those who had it and those who wish to acquire it). However, "official" discourse more often relies on the attempt to maintain "an industrial status quo" rather than looking for sustainable decisions based on new models that create additive values. One such interesting attempt to maintain "an industrial status quo" is an attempt of institutions to "take over"

34 Karl Marxl. *Das Kapital: Kritik der politischen Oekonomie*. Hamburg: Verlag von Otto Meissner, 1867.
35 Michel Foucault. *Discipline and Punish: The Birth of the Prison*. New York: Random House, 1975.
36 Friedman, *The World is Flat*.
37 Alex Stephany. *The Business of Sharing: Making it in the New Sharing Economy*. New York: Palgrave Macmillan, 2015.
38 Angelique Chrisafis. "France hit by day of protest as security forces fire teargas at taxi strike". *The Guardian*, January 26, 2016, https://www.theguardian.com/world/2016/jan/26/french-taxi-drivers-block-paris-roads-in-uber-protest.

the sharing economy by using the ideas and tools of this economy to improve their ordinary activities (e.g., the Uber case in Lithuania[39]). Another approach is a juridical fight against the elements of sharing economy. An example of this type of conflict, and perhaps the most noticeable in the public arena, was the so-called Google Books case – a dispute on the relationship between the author's intellectual property and open access, and the main question – whether Google Books is the so-called illegal "pirate" site. In 2016 the US Supreme Court "put an end" to this case, stating that the Google Books project does not infringe intellectual property rights, and upholding the 2015 decision that highlights the Google Books project as important for the development of society, and encouraging creativity and scientific progress.[40] The outcome of this conflict shows the declining tendencies of hierarchical power structures typical of old industrial society as well as the fact that every member of society gets increasingly more options and that public benefit (welfare) is valued more than the interests of one person or a small group of persons (which stand on the higher hierarchy). On the other hand, the traditional "piracy" (copyright infringement) concept[41] inherited from industrial society is being questioned and people are encouraged to search for new creative products (music, movies, software, books, etc.) and business forms that are based not on the object, but rather on the selling of services (cf. cloud computing) or models typical for participatory economics.[42] At the same time, it means that more and more additional value is created not through ownership, but through sharing; not by experts, but by "crowds" using participatory means (interestingly enough, even large IT companies, such as Microsoft, are investing in open source software, not seeking to make claims to it).[43]

39 Lapienytė and Jokūbaitis, "Ką verslūs lietuviai padarė iš „Uber"".
40 Adam Liptak and Alexandra Alter. "Challenge to Google Books Is Declined by Supreme Court. *New York Times*, April 18, 2016, h t tps://www.nytimes.com/2016/04/19/technology/google-books-case.html?_r=0.
41 Darrell Panethiere. "The Persistence of Piracy: The Consequences for Creativity, for Culture, and for Sustainable Development". *UNESCO e-Copyright Bulletin* July-September (2005), http://portal.unesco.org/culture/en/files/28696/11513329261panethiere_en.pdf/panethiere_en.pdf.
42 "*Participatory Economics is a model for a new economy*", http://www.participatoryeconomics.info.; Nina Simon. *The Participatory Museum*. Santa Cruz: Museum 2.0, 2010, http://www.participatorymuseum.org/read.
43 "TheNextWeb", http://thenextweb.com/microsoft/2016/09/15/in-your-face-google/.

How do all these vectors operate in heritage practices and knowledge work? First of all, the "struggle for intellectual property" encourages reviewing the "digital copy" and "digital surrogate" concepts that are used in digitization field. These conceptual frameworks were formulated at the various stages of digitization, mainly in order to transfer the author's intellectual property rights of analogue creation to the digital document. For this question, the most interesting is point of view, based on Prigogine's systems theory about evolving systems.[44] It means that the process of digitization is not the process of copying or creating surrogates, but rather the process of decoding from analogue reality to the discrete digital environment. During this decoding process the object's level of structuring increases, but unavoidably some information is lost (e.g., the information is lost in a scanned historical document about the chemical composition of the paper). The result is not a copy or a surrogate, but a new object of reality with a different nature, based on different technology and with a different life cycle. In the processes of digitization, the relationship between analogue reality and discrete digital environment could be called emulativity (as a specific activity where people create emulative systems in a digital environment, emulating and imitating the activity of natural systems operating in the physical environment). But it is important to note that emulative systems are not copies of systems existing in reality, but are as independent, dynamic and freely evolving (perdurant[45]) as the systems of reality that they emulate. On the other hand, the emulative digital objects work as some kind of extensions of reality (such as the augmented reality concept). Moreover, in this context, the line between popular "digitized" and "born digital" concepts is disappearing, which, at least in part, de-

44 Prigogine and Stengers, *The End of Certainty.*

45 Endurantism and perdurantism are two opposing philosophical theories investigating the persistence of objects with regard to time that were formed during the last decades of the 20th century. Endurantists affirm that objects are three-dimensional entities that have spatial parts and wholly exist at each moment of their existence. Perdurantists affirm that objects are four-dimensional entities (the fourth dimension and component of objects is time) and they exist at each moment of their existence only partially. The origin of these philosophical theories may be linked to Einstein's general and special relativities. Endurantism is more suitable for Newton's descriptive space of physics and it is problematic in the description of Einstein's space-time objects (see more at Hales, Steven D., Johnson Timothy. "Endurantism, Perdurantism, and Special Relativity". *The Philosophical Quarterly* 53.213 (2003): 524-539. Accessed April 20, 2017. http://departments.bloomu.edu/philosophy/pages/content/hales/articlepdf/endurantism.pdf.).

veloped also as intellectual property for regulatory purposes. Structurally both "digitized" and "born digital" documents are the same emulations of reality, and their differences can be reduced to different trans-media migration options when the "digitized" object has these options (the book scanned and presented in .pdf format may again be printed without significant loss of information), and "born digital" – usually does not (GIS data array may be printed as a usual map, but, in this case, it will lose all the functionality provided by digital GIS).

The second important issue is related to the creating of additional values through sharing. One of the essential features of many digital heritage systems is the "limitation" of content to users (the bigger part of provided visual content is low resolution, "protected" by watermarks, with superficial metadata, etc.). On the other hand, metadata in different countries are treated in different ways as intellectual property objects, intellectual property licenses are interpreted differently (e.g., Creative Commons), and so-called "orphan works" as well as the so-called "orphans" create problems. This is a serious obstacle for sharing and reusing digital heritage information and creating additional values via "sharing economy" models. In this case, in the networking society the most acceptable could be an open source model and approach where the results of the projects (which were paid for by the public sector) must be free from any restrictions, limitations or extra charges and available to the public for educational, entertainment, business and all possible other reasons, because, first of all, users (through the tax system) have already paid for these products. On the other hand, non-commercial and commercial use [re-use] of digital content without any limitations increases business profits and contributions to the state budget, and add value to other forms of capital, which also means greater "public good" and public finances – the only one useful way to grow the reusing of digital content.

This different approach to creating additional value creates conditions of the sharing economy concept in heritage practices and knowledge work. Sharing heritage can be defined as a socio-economic ecosystem built around the sharing of heritage information in the broader sense (raw data, structured information, knowledge and experience, interpretations etc.), and includes the shared creation, production, distribution, use and reuse of information and services. Sharing heritage could be described by some features, based on the concepts of open world,[46] open access[47] and open source.[48] Therefore in the context of "from Uber to Google Books", digital heritage professionals could be defined metaphorically as the personification of (informational) freedom (liberators), who light the ways to open access and a public domain future.[49]

However, in order for sharing heritage to function, not only the recognition of certain ideological concepts but also the appropriate digital infrastructures are necessary, based on the understanding between suppliers and customers which are characteristic for sharing economy. When analyzing the dual digital infrastructures which function at present, we can notice two basic types (actually, two disconnected worlds in digital infrastructures of heritage), which are based on different conceptual approaches. Most digital infrastructures created by memory and scientific institutions are based on an authoritarian ("top-down") curatorial approach, according to which the creator of the infrastructure is an expert who knows the public's needs and creates the product meant for them. Therefore, here suppliers and customers are in strongly fixed positions, where system creators are active suppliers and members of the general public are passive consumers. Such "official" digital heritage platforms (e.g., Europeana) are strongly structured (relational databases, controlled vocabularies, standardized metadata models, etc.), non-open source and, usually, without the possibility of sharing and co-creation. It is worth noting that, in the case of these infrastructures, digital technologies are applied instrumentally (only as "one more machine"), without taking into consideration the properties of these technologies as media or the changed needs of society. This may be one of the answers to the question of why the content of

46 *CIDOC-CRM*, XII.
47 *Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities*. München: Max-Planck-Gesellschaft, 2003, https://openaccess.mpg.de/Berlin-Declaration.
48 *Open source Philosophy*. Canonical Ltd., 2017, https://www.ubuntu.com/about/about-ubuntu/our-philosophy.
49 Cf. Benkler, Yochai. *The Wealth of Networks: how social production transforms markets and freedom.* Yale: Yale University Pres, 2007.

such digital heritage systems is so little used,[50] and quite a few projects are unsuccessful[51] and turning into "black holes".[52]

"Sharing economy" models needs to use a democratic ("bottom-up"), open, participatory, crowdsourced, "non-structured data" technology platforms, often accessed via mobile phone, to connect suppliers with consumers. The meaning of "supplier" and "consumer" there is flexible and changeable there depending on the situation (really each supplier could be a customer and vice versa). In this case, the process itself of relating between the person and the information infrastructure is different. If in the first kind of (curatorial) systems, our information receiving process can be defined as a "searching" (we are passive users), so in the case of "sharing infrastructures" it is a "discovery" (we are active, participatory researchers). So, in "sharing infrastructures", everyone can be both passive consumer and active supplier and each can experience "the joy of discovery." The functioning of consumers and suppliers model on the basis of sharing heritage is well illustrated by the #NewPalmyra project.[53] Studies show that most people who are not heritage professionals "migrate" to such "parallel [nonprofessionally-created] digital infrastructures", based on social networks, Wikipedia, You Tube tools or (mostly in the case of business), crowdsourcing platforms (e.g., CloudCrowd, CrowdFlower, Choosa, Samasource, etc.)[54]. And these "sharing tools" dominate even in such conservative areas as education, where in 2016 the top five in the UK were such sharing tools as You Tube, Google Drive and Twitter, and more curatorial positions representing Moodle remained in 11th place.[55]

Such "sharing tools", market development and their popularity, and in the case of heritage practices and knowledge work, in part, question the need for the first type (structured, based on curatorial approach) infor-

50 *Europeana 2012–2013: usage and performance update*. CIBER Research Ltd, 2013, http://ciber-research.eu/download/20130623-Europeana_2013_usage_and_performance_update.pdf.; For current statistics see: *Europeana statistics dashboard*. Europeana Foundation, 2017, http://statistics.europeana.eu.

51 *CHAOS Report 2016*. The Standish Group International, Inc., 2017, http://www.standishgroup.com/outline.

52 Palm, "The Digital Black Hole".

53 #NewPalmyra project, http://www.newpalmyra.org.

54 Dariusz T. Dziuba. "Crowdsourcing a migracja rynków pracy do cyberprzestrzeni". In *Wirtualizacja. Problemy, wyzwania, skutki*, edited by L. Zacher, 235-256. Warszawa: Poltext, 2013.

55 Jane Hart. *Top 100 Tools for Education*. C4LPT, 2017, http://c4lpt.co.uk/top100tools/top100-edu.

mation systems in general (at least in terms of the development of new systems). The implementation of a cloud computing[56] approach and analysis of existing "sharing tools" would allow them to be used effectively in heritage practices and knowledge work without creating new systems, but more investment in content and semantic searching would be necessary, while paying less attention to the preservation of data and metadata infrastructures (such as "fair presentation"), and focusing more on search tools (how "to find more qualitatively") for digital and digitized heritage data, information and knowledge (e.g. big data[57] and small data concepts[58]). On the other hand, the concept, based on the "good working browsing tool", requires personal skills (creative information, digital and media literacy), because in this case, the browsing is less technical action and more discovery. In searching we are passive users and in discovery we are active "researchers". Search success depends upon information professionals (curators) and in discovery we have the participatory approach (compared with our earlier discussions about "two worlds" of digital heritage: the "curatorial world" and the "shared world").

2nd Conflict: From People to Robots

If we tried to create a dictionary of digital culture definitions, one of the most important would be "algorithm". This concept is important in describing the differences between the reality that obeys strict rules and the reality that is free, creative and where the rules are hard to apply. The development of digital technology shows that algorithmic reality will soon be completely controlled by robots.[59] According to Kelly, we can distin-

56 Kristine Hoff Meyer, Mikkel Christoffersen, Henk Alkemade, Maria Luisa Martinez-Conde, Rimvydas Laužikas, Ingrida Vosyliūtė, Martin Krajnak, Tatiana Shamarina-Heidenreich. *Report on the State-of-the Art Monitoring and Situation Analysis*. LoCloud project Deliverable 1.1., 2013, http://pro.europeana.eu/files/Europeana_Professional/Projects/Project_list/LoCloud/Deliverables/d1.1-state-of-the-art-monitoring-ver1.pdf.

57 Viktor Mayer-Schönberger and Kenneth Cukier. *Big Data: A Revolution that Will Transform how We Live, Work, and Think*. Boston: Houghton Mifflin Harcourt, 2013.

58 Martin Lindstrom. Small Data: The Tiny Clues That Uncover Huge Trends. New York, St. Martin's Press, 2016.

59 Martin Ford. *Rise of the Robots: Technology and the Threat of a Jobless Future*. New York: Basic Books, 2016.

guish several robotic "influence" spaces: "jobs humans can do, but robots can do even better", "jobs humans can't do, but robots can" and "jobs we didn't know we wanted done".[60] Obviously, in the space of algorithmic reality people are already not comparable to machines. The "turning point" was in the now quite distant past, in 1997, when a chess grandmaster Garry Kasparov lost to the computer "Deep Blue".[61] Another currently rising algorithmic reality phenomenon is so-called "biohacking",[62] which basically directly realized Marshall McLuhan's idea of viewing technology as extensions of the human body.[63] Conflicts caused by man-machine interaction today are not so clearly visible in the public space as a "sharing economy" (the place where the community of artificial intelligence critics is quite active[64]). However, the research draws very clear contours concerning future social conflicts based on the transfer of algorithmic activities to robots. Due to the spread of robotization there is a big probability that in the coming decades, robots will not only hold the majority of jobs, but will also eliminate many professions[65] and significantly reduce the need for non-creative employees. The example of such an automated future structure could be tested by the automatic Amazon store,[66] or automatic cars,[67] eliminating seller's and driver's professions. Already, in the European Union, there is a gap between the number of the unemployed and vacancies,[68] which means that some of the unemployed because of their qualifications cannot fill existing vacancies and are doomed to long-

60 Kelly, *The Inevitable*.
61 Bruce *Pandolfini. Kasparov and Deep Blue: The Historic Chess Match Between Man and Machine. St. Paslmer: Fireside Books, 1997.*
62 Ben Popper. "Cyborg America: inside the strange new world of basement body hackers". *The Verge Magazin*, August 8, 2012, http://www.theverge.com/2012/8/8/3177438/cyborg-america-biohackers-grinders-body-hackers.
63 Marshall McLuhan. *Understanding Media: The Extensions of Man*. New York: McGraw Hill, 1964.
64 Rory Cellan-Jones. "Stephen Hawking warns artificial intelligence could end mankind". *BBC News*, December 2, 2014, http://www.bbc.com/news/technology-30290540.
65 Carl Benedikt Frey and Michael A. Osborne. *The future of employment: how susceptible are jobs to computerisation?* Oxford: University of Oxford, 2013, http://www.oxfordmartin.ox.ac.uk/downloads/academic/The_Future_of_Employment.pdf.
66 Rupert Neate. "Amazon Go store lets shoppers pick up goods and walk out". *The Guardian*, December 5, 2016, https://www.theguardian.com/business/2016/dec/05/amazon-go-store-seattle-checkouts-account.
67 *Waymo*. Alphabet Inc., 2017, https://waymo.com.
68 *Unemployment statistics*. Eurostat, 2017, http://ec.europa.eu/eurostat/statistics-explained/index.php/Unemployment_statistics.

term unemployment. Richard Florida's creative class research shows that even in the most creative cities of the USA, the so-called "creative class" (people whose jobs will most likely not be taken by robots) consists of 74.2 to 76.9 percent of the population.[69] Therefore, while pessimistic scenarios concerning the outsourcing of algorithmic jobs to robots are coming true, in the coming decades we can expect a society where long-term unemployment will reach 30-40 percent, where the most important social exclusion feature can be personal creativity, and about 10 per cent of available creative jobs can remain vacant. In wider contexts, this gap prompted by digital effects may be the cause of significant political change. We can raise and research the hypothesis about correlation between the creative class distribution in the United States and the 2016 presidential elections results, where Trump received votes from the states with a relatively smaller percentage of creative class persons with good salaries.[70] Meanwhile, we can capture the trends of future societies based on student achievement results of the Programme for International Student Assessment (PISA),[71] hypothetically arguing that countries that occupy a higher position on the PISA studies will deal more easily with any future problems relating to creativity/no-creativity gap challenges. However, this statement means that even now we have to look at all the different levels of the educational system. After all, pre-school children today will find themselves in the labor market essentially after only 15-20 years (in 2031-2036), at a time when (according to scientific studies) robots will begin intensively to occupy the algorithmic jobs. Therefore, the education system must be reoriented from the view that knowledge is a goal in educational process towards the view that it is only a means to higher-level competencies such

69 Richard Florida. *America's Leading Creative Class Cities in 2015*. CityLab, Apr 20, 2015, http://www.citylab.com/work/2015/04/americas-leading-creative-class-cities-in-2015/390852.

70 Comparison between: Richard Florida. *The Geography of high-paying jobs*. Creative Class, August 5, 2010, http://www.creativeclass.com/_v3/creative_class/2010/08/05/the-geography-of-high-paying-jobs; Richard Florida. *Who's Your City?* Creative Class, August 5, 2005, http://www.creativeclass.com/_v3/whos_your_city/maps/#The_Creative_Class_Map, and "2016 electoral map". *CNN Politics*, November 9, 2016, https://edition.cnn.com/2016/11/04/politics/road-to-270-electoral-college-map-november-4-duplicate/index.html; Jason Brennan. *Against Democracy*. Princeton: Princeton University Press, 2016.

71 *OECD PISA (The Programme for International Student Assessment)*. OECD, 2017, http://www.oecd.org/pisa/aboutpisa.

as creativity, critical thinking, digital and informational literacy, attitude and ability for life-long learning.[72] Algorithmized activities are likely to change not only educational philosophy, but also educational content. If we talk about a person's education in the digital culture, we can guess that one of the greatest innovations will be a spread of massive audio-text generators. There is already quite a lot of software that converts language to text and vice versa – converting text to sound. So far, this is not a mass technology. However, in the next decade it will become massive. This will mean that eventually the ability to read and write will become basically useless. Therefore, there will be a need to consider their expediency in school programs. On the other hand, the development of this technology is related with high-quality automated translation, which will allow us not only to "speak" in any language, but also to "read" texts in any language. Therefore, the skills of writing, reading and foreign language will likely become an elite (maybe as well socially exclusionary) competence of those who want to (for example) actually read fiction in its original language.

These discussed conflicts allow us to draw a vector indicating the growth of robot- or cyborg- (biohacked humans) performed jobs[73] and of the role of human creativity, which function in broad social, political, economic and other contexts. In heritage practices and knowledge work, this means the growth of the role of automatically generated digital information and knowledge in heritage research, conservation and communication processes. It also means the growth of institutional and individual reactions whose extremes can be defined as automated technology pessimism (the "new luddites" movement, the anti-automation view[74]) or technological optimism, based on the understanding that when robots perform algorithmic activities more time is left to realize personal creativity. Thus, in the context of "from people to robots", the digital heritage professional metaphorically could be defined as a Jedi Knight, who rules the creative "army" of drones, droids, clones and cyborgs.

72 *National Core Curriculum*. Finnish National Board of Education, 2014, http://www.oph.fi/english/curricula_and_qualifications/basic_education/curricula_2014.

73 Tom Boellstorff. *Coming of Age in Second Life: An Anthropologist Explores the Virtually Human*. Princeton: Princeton University Press, 2015.

74 Ford, *Rise of the Robots*.

The examples of such activities in heritage practices and knowledge work can be the automated search and identification[75] of heritage objects or heritage monitoring[76] through the use of semi-automatic computer devices using 3D image capture and analysis technology. Identification, investigation and preservation of cultural heritage are among the main challenges for contemporary society. They are closely connected with several dimensions: technology transfer, scientific investigations, global-local rhetoric, cultural tourism, armed conflicts, immigration, cultural changes, investment flows, new transport infrastructures, etc. Nowadays organizations responsible for heritage investigation and management constantly have to deal with a lack of resources that are crucial for proper heritage identification, investigation and preservation, maintenance and protection. It is particularly problematic for countries with low GDP or unstable political situations. The possible solution of these problems could be information management-based methodology, connected with automated and semi-automated heritage investigation and a monitoring software system, based on the 3D technologies, where 3D scanning technology is used as the most accurate method to find heritage objects in the natural landscape and can capture the situation of an evolving cultural heritage object or complex at a given time. As a cultural heritage object or complex is evolving continuously, two 3D point clouds created at different times allow reliable tracing of potential changes. Monitoring of large-scale heritage complexes such as urban heritage objects is a resource-demanding task and in such cases semi-automatic computer-based 3D visual analysis is appropriate. Comparison of 3D visual data captured at different times advances to next level when utilizing methods of 3D photogrammetry that make it possible (at least partially) to create 3D point clouds from old photos, giving us opportunities to expand research by adding empirical

75 Melanie A. Riley. Automated Detection of Prehistoric Conical Burial Mounds From Lidar Bare–Earth Digital Elevation Models. Northwest Missouri State University, 2009, http://www.nwmissouri.edu/library/theses/2009/RileyMelanie.pdf; Øivind Due Trier and Maciel Zortea. "Semi–automatic detection of cultural heritage in lidar data". *Proceedings of the 4th GEOBIA*, May 7–9, 2012, http://mtc–m18.sid.inpe.br/col/sid.inpe.br/mtc–m18/2012/05.17.16.52/doc/039.pdf.

76 Rimvydas Laužikas, Albinas Kuncevičius, Tadas Žižiūnas, Egidijus Žilinskas. "Automated heritage monitoring software prototype implementing 3D technologies". *The 44th Computer Applications and Quantitative Methods in Archaeology*. Conference (CAA 2016). Oslo, March 29, 2016 – April 2, 2016; Kuncevičius et al., *Dubingių mikroregionas*.

data captured before 3D scanning equipment and also lowering the costs of conducting such research.

3rd conflict: from the national state to the ideological community

The research captures the two ongoing opposite, but also related phenomena: convergence and new fragmentation. At the global level during ongoing convergence processes, society becomes similar (similar cultural events, social behavior patterns, dependence on global brands, etc. become firmly established) and the old limitations typical for an industrial society start to disappear. This process is widely discussed in the public domain and in various (economic, political ideas, cultural, etc.) discourses. However, even Manuel Castells observed that there is growing importance of identity in modern society as a counterweight to the uncertainty of the global world. According to Castells, building materials for the construction of identity are provided by history, geography, biology, production and reproduction institutions, collective memory, personal fantasies, power apparatus, and religious revelations.[77] Therefore, at the same time as globalization, fragmentation processes are happening that are much less visible in the public space. This new fragmentation is associated with the emergence of new limits of the networking society. During the process, on a local level are creating and strengthening groups with specific local (historical, geographical, thematic, religious, cultural, etc.) identities. These groups are systematically maximally solid inside and distinctly separate from the other groups. The processes which happen inside the groups are similar to those which were captured in industrial society in religious communities. Among them, the most important is the unconditional belief in some basic idea and a negative attitude towards the people who doubt this idea (heretics). In this way, the group (as a like-minded community) falls into a kind of "ideological and informational bubble" when people belonging to it are faithful to a particular idea and do not criticize or discuss this idea in principle. Therefore, members of the com-

77 Castells, *The Information Age*.

munity do not see the broader context and somehow distance themselves from society. Some communities actively become more radical (moving away from the global society "average"), actually increasing social dispersion. Although it is generally stated that the present society is becoming more global, actually we are witnessing the global convergence and local polarization process, which leads to identity-based society clustering. In different areas of reality, it is manifested in different ways. In politics, we see the similarity of programs based on traditional ideologies (liberalism, conservatism, social democracy) and the emergence of new "clear identity" parties (such as Syriza in Greece or the "Pirate Party" in Iceland), which are independent from the "old" ideology parties. In science there is a spread of inter- and meta- disciplinarity, when the researchers of different "old" fields of science, focus on scientific problems bound communities. Does this mean that the future of research directions will be, for example, "immigrantology" which investigates the problems of migration or "exitology" which investigates the relations of member states and the European Union (c.f., Brexit)? In social networks, which are essentially a global phenomenon, there are a growing number of groups that are very closed and brought together around one particular idea ("digital tribes").[78] In the political map of the world marked by mass migration, the formal "old" borders of countries are increasingly disappearing and their places are taken by communities brought together around particular ideas, and their members, regardless of their place of residence may be loyal, for example, to the idea of citizenship. In some cases, these communities of "loyal extraterritorial citizens" help their country to achieve higher places in the Eurovision Song Contest. In other cases, they can become the foundations of expansive derivatives, such as the new "Russian world"[79] or ISIS.[80] Estonia has even realized a separate digital citizenship concept

78 Chris Mears. "Digital Tribes – Creating Behaviour Change in Users". *theUXreview*, October 29, 2013, http://theuxreview.co.uk/digital-tribes-creating-behaviour-change-users.

79 Luke Harding and Shaun Walker. "Closure of Russia Today bank accounts nothing to do with us – Treasury". *The Guardian*, October 17, 2016, https://www.theguardian.com/world/2016/oct/17/russia-todays-uk-bank-accounts-frozen-says-editor.

80 Pieter Van Ostaeyen. "Why have IS jihadists targeted Belgium?". *BBC News*, March 25, 2016, http://www.bbc.com/news/world-europe-35882372.

and a separate digital conscript military service.[81] In this way, the state becomes the authority-controlled community that is related with many other communities, identities and ideological structures, and functions in a blended way in virtual and real spaces. Next in the line of future "new type" states are global corporations' states (whose "citizens" are loyal to the brand).[82] The financial capacity and influence on communities of such corporations as Coca-Cola, Microsoft, or Apple are significantly ahead of some of the "traditional" states, and the safety agency G4S "army", by its numerousness features twentieth among the world's largest armies.

Such growth of identity value in heritage practices and knowledge work means growth in the influence and responsibility of digital heritage professionals (they generate ideas that can be destructive). On the other hand, in this context of digital culture, the heritage is contemporized. It functions not so much as knowledge of the past, but more like the tangible or intangible[83] element of present culture (heritage as design[84]). Modern people's interests, rather than past ideas or matter, come into heritage centered practices and knowledge work and the heritage itself becomes a resource of modern society.[85] Thus the line is being erased between heritage (which belongs to the past and represents past culture) and contemporary culture. The heritage essentially becomes a present – like a tool of modern culture, modern entertainment industry, identity construction, political communication, and so forth, acting not so much as a place (c.f., genius loci, lieux de mémoire), but more like the "displaced" idea of communities of people who were displaced with the help of digital technologies from their usual geographical space and linked to the solid space of the "global village" world (c.f., CIDOC -CRM, E28 Conceptual Object "…

81 Anthony Cuthbertson. "Estonia First Country to Offer E-Residency Digital Citizenship". *International Business Times*, October 7, 2014, http://www.ibtimes.co.uk/estonia-first-country-offer-e-residency-digital-citizenship-1468766.

82 Martin Lindstrom. *Brand Sense: Sensory Secrets Behind the Stuff We Buy*. New York: Free Press, 2010.

83 Laurajane Smith. *All Heritage is Intangible: Critical Heritage Studies and Museums*. Amsterdam: Reinwardt Academie, Amsterdamse Hogeschool voor de Kunsten, 2011.

84 Michael Shanks. *Let me tell you about Hadrian's Wall: heritage, performance, design*. Amsterdam: Reinwardt Academie, Amsterdamse Hogeschool voor de Kunsten, 2012.

85 Gregory J. Ashworth. "From history to heritage: from heritage to identity: in search of concepts and models". In *Building a New Heritage: Tourism, Culture and Identity in the New Europe,* edited by Ashworth, G.J., Larkham, P.J., 13-30. London: Routledge, 1994.

non-material products of our minds and other human produced data that have become objects of a discourse about their identity, circumstances of creation or historical implication…"[86]). Therefore, in the context of "from the national state to the ideological community", the digital heritage professional metaphorically could be defined as a Prophet with high level or responsibility, because only a thin red line separates a constructive interest in the heritage and a destructive nationalism (or another heritage-based identity akin to some kind of "new religious fanaticism").

4th Conflict: From the Linear Text to the Set of Linked Images

The culture and worldview of industrial society is closely related with the textual culture of the printed book and a linear and fragmented relationship with reality that it has instilled (the book is read in a linear way, seeing only a particular part of it at one time – a fragment of the book). The linearity of reality can be traced in a lot of industrial society's products, beginning with the industrial belt and ending with museum exhibits (constructed linearly on the principle – "from ancient times to the present day"). Also, it can be traced in linear or linear-cyclic models based on the time arrow,[87] which visualize various processes of reality (for example, information behavior, and the information life cycle). The idea (very popular in industrial society) of societal, technological, ideological and so forth progress is also based on these models. However, during the formation of the network society, cultural textuality and linearity are questioned. Therefore, one of the most active discussions of today is related to the perspectives of the printed book and book reading in digital culture, the relation between textual culture and visuality and cultural network development. Studies captured clear trends of the spread of visual culture in social networking, encouraging networking developers to invest in strengthening the technical possibilities of visual content sharing.[88] However, in the public discourse people increasingly become aware that visual-

86 *CIDOC-CRM*, 16.
87 Prigogine and Stengers, *The End of Certainty*.
88 Fidji Simo. "The Latest on Facebook Video". *Facebook Newsroom*, September 7, 2014, http://newsroom.fb.com/news/2014/09/the-latest-on-facebook-video/.

ity is more a natural status directly associated with the relationship between a person and reality rather than a perception of reality through the intermediation of text. The functioning of text in digital culture evolves in several directions. First of all, text loses its dominant information function and turns into an extension of reality, a sort of augmented reality product, which (along with other media) acts as one of the equivalent communication reality elements augmenting our personal relationship with the reality-based experiences of other people's relationship with reality. The modern website, in terms of communications (as information broadcasting) and user's information behavior, is closer to the medieval cathedral than to a book, because both the cathedral and the website have predominantly visual elements that are presented in a holistic way (the user sees the whole and not the fragment) whereas the "reading" process is not linear (such as in books) but networked. In this context, the printed book takes its niche among other media. Here the situation is somewhat similar to that of wildlife. In the 19th century, Charles Darwin described the variability and heritability phenomena that guarantee a huge animal and plant species diversity, because in the long run, every species has its special place (niche) and therefore does not compete with other species and remains. Species that do not survive the competition disappear. A similar process is at work with the survival of media in culture. New media[89] are looking for their own niches or to take over those of old media. The printed book did not destroy manuscript culture, cinema did not destroy theatre and TV did not destroy cinema. All of them have found their own unique niches. However, mobile telephony destroyed the telegraph, and electronic mail destroyed the facsimile (fax). Therefore, in case of the book, in some segments (for example, informational – encyclopaedias, dictionaries, reference books, etc.) printed books will be excluded, but in the other spheres (fiction), they are likely to remain. The second important element in the evolution of the text is the change to textuality elite, (which has already been mentioned in the section on robots). Such a textuality elite (reading and writing) was formed in medieval European society, where there was

89 Lev Manovich. *The Language of New Media*. Cambridge, Mass.: MIT Press, 2001.

only a minority of books and educated people who were able to enjoy the "direct" fruits of revelation-written Gospels. Therefore, art was positioned as a lower-level "Gospel for the illiterate".[90] This approach has been an important provision, shaping industrial society and encouraging governments to introduce compulsory primary education, and thus reading and writing abilities become less elite by being democratically "shared" with all members of society. However, digital technology allows for automatic reading, writing and text translation possibilities which, (in the long-term) can turn the personal reading, writing and language skills that may again become elite. In this context, the automatic creation of texts poses an interesting question. The idea of automatic text generation is not new, but its implementation was previously limited by relatively small computer abilities. Automatically-generated text has become a reality only in modern times. It can be implemented as kinds of artistic-technological projects[91] or as automatically generated fiction. There is no doubt that through the algorithmic method we cannot create such quality works as Tolkien, Tolstoy, Eliot and Proust created, but the creation of many modern popular novels we really can entrust to computers. The third text evolutionary direction can be defined as the so-called "new textuality". Texts written in letters and digital technology are directly related in the mutual connection. It should be noted that digital technology was created by a civilization that uses the phonetic writing (letters), instead of hieroglyphics. For the creation of binary coding-based technology the specific requirements, abstract personal symbolic thinking patterns were necessary, which were formed by using phonetic writing, Arabic numerals and Western music notation. These three abstract symbol categories (letters, numbers and notes), in terms of digital culture formation, are important as tools that allowed the dissection of continuous reality, by splitting sequences not into the objects (as is done in case of hieroglyphic writing), but into smaller, abstract "sub-objected" elements which are more versatile than the objects, and which are suitable to effectively "describe" any reality (tangible and intangible). It is interesting to note that modern research highlights

90 Jacques le Goff. *Medieval civilisation*. Hoboken: John Wiley & Sons, 1991.
91 *Artūrka – dirbtinis idiotas*, http://www.ranksays.com/arturka.lt.

this different type of innovation specifics[92] of civilizations that use phonetic writing and hieroglyphic writing. Thus, we can analyze the relation between society and text writing as an evolutionary process that began as a realistic and technologically unsophisticated reality recording (pictograms, hieroglyphs) and is evolving towards abstraction, universality and technological sophistication. In this process of evolution, we can distinguish at least four texts levels: manuscript no-phonetic, manuscript phonetic, printed phonetic and program code. It is specifically the software code that could one day change the highly abstract, universal and technologically sophisticated text (it became possible as never before to effectively display the medium of multimedia information). It should be noted that for the mastering of plain text (writing, reading skills) it is usually sufficient to have a primary-level education, while computer programming requires the university-level study program. However, we can say that programmers are the real "writers" of these days. And finally, the text's "liquidity",[93] is associated with its incompleteness, sharing and openness.[94] These are created by using network tools (social networks, blogs, wiki) that realize multi-media, interactivity (the possibility to interact with the work as a reader, and as a writer), multi-authorship (crowdsourcing), the possibility to develop a number of different and independent plotlines ("open source principle"), the use of hypertext while "traveling" in a story (not required [but not prohibited] linear reading), and the possibilities virtually to visit the described places, to get more information and experience.[95] We can note that the present digital texts become closer to the public folklore of the pre-industrial period than to the literature of the industrial period, when a limited number of plots/works are realized in an unlimited number of works.[96]

On the other hand, the text change in digital culture and the spread of

92 Richard Florida. *The World is Spiky*, https://www.theatlantic.com/past/docs/images/issues/200510/world-is-spiky.pdf.
93 Cf. Zygmunt Bauman. *Liquid modernity*. Cambridge: Polity Press, 2000.
94 Umberto Eco. *The Open Work*. Cambridge MA: Harvard University Press, 1989.
95 Hartmut Koenitz, Gabriele Ferri, Mads Haahr, Diğdem Sezen, Tonguç İbrahim Sezen. *Interactive Digital Narrative: History, Theory and Practice*. New York: Routlewdge, 2015.; Koskimaa, *Digital Literature*.
96 C.f., Hans-Jörg Uther. *The Types of International Folktales: A Classification and Bibliography. Based on the system of Antti Aarne and Stith Thompson* (Three volumes). Helsinki: Suomalainen Tiedeakatemia, 2010-2011.

network technologies and network society destroys another of our thinking constructs – "linearity thinking", which is formed of Judeo-Christian world-view (time linearity) and printed book culture (reading linearity). On the basis of this construct, we created many framing models of scientific knowledge, starting with the development models of early Christian history and ending with Darwin's natural evolution or with Marx's evolution of society. The linear construction of reality has become the basic component of industrial society research and education that constituted the construction of theoretical models and the research design and interpretation of fixed trends. However, some signs suggest certain limitations of "linear science" in modern society studies (we see this in the investigations of so-called "Generation Z", which captures exceptionally negative traits of this generation or public opinion surveys in quite a number of countries (especially when election results are predicted) "go awry").[97] Hypothetically we can state that the "linear science" models applied to the industrial society of a linear nature do not allow us to achieve effective results when the networking society is tested, and these changes, together with other changes, form the phenomenon called "The Third Science Revolution", which influences activities in the heritage sector.[98] The change of textuality and linearity in the digital culture allows one to capture the decline in importance of text-based linear and cyclical-linear models and the growth the importance of object-oriented networked models.

Moving this vector to heritage practices and knowledge work, we can talk about textuality and text-based communication and also about the change of science linear models and linear-based paradigms. The digital heritage professional ("from linear text to networked set of images" in the context of the vector) becomes similar to the medieval craftsman and is an art (like when it is meant for "Gospel illiterates") creator, who operates more on objects (things) than on texts. In heritage practices and

97 Julianne Micoleta. "Generation Z Teens Stereotyped As 'Lazy And Unaware'". *The Huntington Post*, June 03, 2012, http://www.huffingtonpost.com/2012/03/06/apathetic-teens-generatio_n_1323577.html.

98 Kristian Kristiansen. "Towards a new paradigm? The Third Science Revolution and its Possible Consequences in Archaeology". *Current Swedish Archaeology*, 22 (2014), http://www.arkeologiskasamfundet.se/csa/Dokument/Volumes/csa_vol_22_2014/csa_vol_22_2014_s11-34_kristiansen.pdf.

knowledge work this means the movement from "text oriented" to "object oriented" models. The transcoding of reality from an analogue to a digital system, performed during the digitization of heritage, is connected with two methodological models: the "text oriented" model and the "object oriented" model. The "text oriented" model was created mostly by librarians ("text oriented community") at the early stage of the computerization of cultural heritage. It is based on a "hierarchical thinking" paradigm and usually describes the world via hierarchically organized controlled vocabularies and other structured texts (such as relational database attributes, tables and relationships). Despite the evident significance of the "text oriented" model for the development of the digitization of cultural heritage, it is also necessary to note the essential limitations of this model. The actual world (reality) is continuous and is composed of interconnected objects (not concepts) that are organized according to a non-hierarchical structure. In a broader sense the cultural heritage information universe consists of "physical things" and "symbolic objects" (in meanings of CIDOC-CRM),[99] whereas the physical things are "empirically real" and symbolic objects are created by our minds. From the point of view of digital technologies, they are both information (binary code), but "text oriented" models ignore the physical things. Specifically they (physical things) are transformed into symbolic objects (concepts, appellations and so forth) by "text oriented" professionals, because they have higher level of skills and competencies to work with texts, but not with physical objects. The "object oriented" model proposes a different point of view. This model was created during the modern stage of the computerization of cultural heritage mostly by museologists ("object / artefact oriented community") and is connected with the growth in computer possibilities in the last decades. It is based on a "network" paradigm and usually describes the world via a network-organized object's ontology. The ontological "object oriented" model is more connected with reality, because, the psychical things (e.g., real place or time) and symbolic things (e.g., place-time appellations) are described as separate classes of reality. Symbolic interconnections between

99 *CIDOC-CRM*, 12, 40.

text oriented" and the "object oriented" models could be explained as one of the conceptual differences between UNIMARC[100] and CIDOC-CRM.[101] On the one hand, CIDOC-CRM works as object-oriented ontology, but on the other, CIDOC-CRM proposes an absolutely different concept of reality, where reality is composed not from stable things (objects), but from dynamic events. A CIDOC-CRM event acts as a kind of space-networked node, linking the various objects of reality – physical and symbolic things, persons, places, time, their appellations etc. It is also important that the CIDOC-CRM model is not strictly hierarchical, allowing multiple inheritance ("a class a may have more than one immediate superclass").[102]

On the other hand, we can talk about the change in the models (which are applied in research) towards networking. Most of the current information management, information life-cycle, information behavior, etc. models (e.g., Wilson, Shannon, Choo), created in the industrial society are linear or, in some cases, cyclically-linear, whereas after the last stage model starts from the first stage. But, the question "how many linear models work in digital space and in network society" is important for contemporary scholarship. We can guess that to study modern society we will have to create modified, less linear and more networked models, whereas it is possible to "directly jump" (interactive, hypertextually) from each stage of a linear model to any other stage and to return again.

Discussion

In this discussion article we discussed several transformations in heritage practices and knowledge work that are the effects of digital capabilities. There are many more such trends and challenges caused by them. By observing them we can draw the development contours of both public and heritage practices and knowledge work. Here we can discuss several scenarios. The first is to resist the changes. The historical experience con-

100 *UNIMARC Strategic Programme*, https://www.ifla.org/unimarc.
101 *CIDOC-CRM*.
102 *CIDOC-CRM*, XI.

cerning the acceptance of the car, television, railway and many other technologies, shows that this scenario is pointless (c.f., Kelly, The Inevitable).[103] In the case of digital technologies, the most active here is the so-called Generation X – people who were born, grew up and gained education and worked long enough without digital technology. For part of them this technology seems confusing, scary and dangerous. They hardly grasp either the opportunities or the threats of this technology, and, in most cases, they reject it. However, after 10-20 years there will not be much of the cultural, political or economic power of this generation at the "top" of the society, and growing Generations Y or Z will definitely eliminate the "man with a flag" type regulations (created by Generation X) that were meant to "soften" the digital effects-based transformations. The other two scenarios can be called "optimistic" and "pessimistic". In the optimistic scenario, the formation of the network society is perceived as a universal possibility, unlocking the creative powers of the majority of people, which, based on robotic algorithmic powers, will allow a freer, more democratic, more open society. Maybe in this society we will not have the usual power structures such as parliaments, and the laws will be drafted and adopted by "crowdsourcing". In a pessimistic scenario the impact on society of digital technology is perceived as a global threat, leading (to paraphrase George Orwell) to the new year of "2084". It's so easy, by means of digital technology and the superiority of public interest against the individual interests, to introduce totalitarianism in support of "public welfare". So, in the context of heritage practices and knowledge work, we can ask ourselves: what is and what will be the roles of digital heritage professionals now and in future – liberator, Jedi knight, prophet or craftsman? Or, maybe, somebody who will wait for us in the open informational world, situated beyond our incomplete information "relative to the universe of discourse they intend to describe".[104]

103 Kelly, *The Inevitable*.
104 *CIDOC-CRM*, XII.

References

#NewPalmyra project, http://www.newpalmyra.org.

"2016 electoral map". *CNN Politics*, November 9, 2016, https://edition.cnn.com/2016/11/04/politics/road-to-270-electoral-college-map-november-4-duplicate/index.html.

"Gartner Hype Cycle". *Gartner Inc.*, 2017, http://www.gartner.com/technology/research/methodologies/hype-cycle.jsp.

"*Participatory Economics is a model for a new economy*", http://www.participatoryeconomics.info.

"TheNextWeb", http://thenextweb.com/microsoft/2016/09/15/in-your-face-google/.

Artūrka – dirbtinis idiotas, http://www.ranksays.com/arturka.lt.

Ashworth, Gregory J. "From history to heritage: from heritage to identity: in search of concepts and models". In *Building a New Heritage: Tourism, Culture and Identity in the New Europe,* edited by Ashworth, G.J., Larkham, P.J., 13-30. London: Routledge, 1994.

Audretsch, David B., Lehmann, Erik E., Wright, Mike. "Technology transfer in a global economy". *The Journal of Technology Transfer* 39.3 (2014): 301–312, 2017, doi: 10.1007/s10961-012-9283-6.

Bakan, Joel. *The Corporation: The Pathological Pursuit of Profit and Power*. New York: Free Press, 2004.

Bauman, Zygmunt. *Liquid modernity*. Cambridge: Polity Press, 2000.

Benkler, Yochai. *The Wealth of Networks: how social production transforms markets and freedom.* Yale: Yale University Pres, 2007.

Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities. München: Max-Planck-Gesellschaft, 2003, https://openaccess.mpg.de/Berlin-Declaration.

Boellstorff, Tom. *Coming of Age in Second Life: An Anthropologist Explores the Virtually Human*. Princeton: Princeton University Press, 2015.

Bostrom, Nick. "A History of Transhumanist Thought". *Journal of Evolution and Technology* 14.1 (2005), http://www.nickbostrom.com/papers/

history.pdf.
Bourdieu, Pierre. "The forms of capital". In *Handbook of Theory and Research for the Sociology of Education*, edited by J. Richardson, 241-258. New York: Greenwood, 1986.
Brennan, Jason. *Against Democracy*. Princeton: Princeton University Press, 2016.
Castells, Manuel. *Communication power*. Oxford/New York: Oxford University Press, 2009.
Castells, Manuel. *The Information Age: Economy, Society and Culture.* Trilogy, *Vol. I-III, "The Rise of the Network Society", "The Power of Identity", "End of Millennium". Cambridge, MA; Oxford, UK: Blackwell, 1996-1998.*
Cellan-Jones, Rory. "Stephen Hawking warns artificial intelligence could end mankind". *BBC News*, December 2, 2014, http://www.bbc.com/news/technology-30290540.
CHAOS Report 2016. The Standish Group International, Inc., 2017, http://www.standishgroup.com/outline.
Chrisafis, Angelique. "France hit by day of protest as security forces fire teargas at taxi strike". *The Guardian*, January 26, 2016, https://www.theguardian.com/world/2016/jan/26/french-taxi-drivers-block-paris-roads-in-uber-protest.
CIDOC-CRM. Definition of the CIDOC Conceptual Reference Model, Version 6.2.2. ICOM/CIDOC CRM Special Interest Group, 2017, http://www.cidoc-crm.org/sites/default/files/2017-01-25%23CIDOC%20CRM_v6.2.2_esIP.pdf.
Cuthbertson, Anthony. "Estonia First Country to Offer E-Residency Digital Citizenship". *International Business Times*, October 7, 2014, http://www.ibtimes.co.uk/estonia-first-country-offer-e-residency-digital-citizenship-1468766.
Dallas, Costis. "Humanistic research, information resources and electronic communication". In *Electronic Communication and Research in Europe*, edited by J. Meadows, H. D. Boecker, 209–239. Luxembourg: European Commission, 1999.
Dziuba, Dariusz T. "Crowdsourcing a migracja rynków pracy do cyber-

przestrzeni". In *Wirtualizacja. Problemy, wyzwania, skutki*, edited by L. Zacher, 235-256. Warszawa: Poltext, 2013.

Eco, Umberto. *The Open Work*. Cambridge MA: Harvard University Press, 1989.

Europeana 2012–2013: usage and performance update. CIBER Research Ltd, 2013, http://ciber-research.eu/download/20130623-Europeana_2013_usage_and_performance_update.pdf.

Europeana statistics dashboard. Europeana Foundation, 2017, http://statistics.europeana.eu.

Florida, Richard. *Who's Your City?* Creative Class, August 5, 2005, http://www.creativeclass.com/_v3/whos_your_city/maps/#The_Creative_Class_Map.

Florida, Richard. *America's Leading Creative Class Cities in 2015*. CityLab, Apr 20, 2015, http://www.citylab.com/work/2015/04/americas-leading-creative-class-cities-in-2015/390852.

Florida, Richard. *The Geography of high-paying jobs*. Creative Class, August 5, 2010, http://www.creativeclass.com/_v3/creative_class/2010/08/05/the-geography-of-high-paying-jobs.

Florida, Richard. *The World is Spiky*, https://www.theatlantic.com/past/docs/images/issues/200510/world-is-spiky.pdf.

Ford, Martin. *Rise of the Robots: Technology and the Threat of a Jobless Future*. New York: Basic Books, 2016.

Foucault, Michel. *Discipline and Punish: The Birth of the Prison*. New York: Random House, 1975.

Frey, Carl Benedikt, Osborne, Michael A. *The future of employment: how susceptible are jobs to computerisation?* Oxford: University of Oxford, 2013, http://www.oxfordmartin.ox.ac.uk/downloads/academic/The_Future_of_Employment.pdf.

Friedman, Thomas. *The World is Flat*. New York: Farrar, Straus and Giroux, 2005.

Goff, Jacques le. *Medieval civilisation*. Hoboken: John Wiley & Sons, 1991.

Goffin, Keith, Mitchell, Rick. *Inovation Management: Strategy and implementation using the pentathlon framework*. New York: Palgrave

Macmillan, 2010.

Greenwood, David J., Stini. William A. *Nature, Culture, and Human History*. New York: Harper and Row, 1977.

Grosse, Robert. "International Technology Transfer in Services". *Journal of International Business Studies* 27.4 (1996): 781-800, doi:10.1057/palgrave.jibs.8490153.

Guattari, Felix. *Chaosmosis an ethico-aesthetic paradigm*. Bloomington: Indiana University Press, 1995.

Hales, Steven D., Johnson Timothy. "Endurantism, Perdurantism, and Special Relativity". *The Philosophical Quarterly* 53.213 (2003): 524-539. Accessed April 20, 2017. http://departments.bloomu.edu/philosophy/pages/content/hales/articlepdf/endurantism.pdf.

Harding, Luke, Walker, Shaun. "Closure of Russia Today bank accounts nothing to do with us – Treasury". *The Guardian*, October 17, 2016, https://www.theguardian.com/world/2016/oct/17/russia-todays-uk-bank-accounts-frozen-says-editor.

Hart, Jane. *Top 100 Tools for Education*. C4LPT, 2017, http://c4lpt.co.uk/top100tools/top100-edu.

Hoff Meyer, Kristine, Christoffersen, Mikkel, Alkemade, Henk, Martinez-Conde, Maria Luisa, Laužikas, Rimvydas, Vosyliūtė, Ingrida, Krajnak, Martin, Shamarina-Heidenreich, Tatiana. *Report on the State-of-the Art Monitoring and Situation Analysis*. LoCloud project Deliverable 1.1., 2013, http://pro.europeana.eu/files/Europeana_Professional/Projects/Project_list/LoCloud/Deliverables/d1.1-state-of-the-art-monitoring-ver1.pdf.

Ilnicki, Rafal, "Technicyzacja jako wirtualizacja kultury w perspektywie ontologii wirtualności". In *Wirtualizacja. Problemy, wyzwania, skutki*, edited by L. Zacher, 355-376. Warszawa: Poltext, 2013.

Jacobs, Mark, Spillman, Lynette. "Cultural sociology at the crossroads of the discipline". *Poetics* 33.1 (2005): 1–14.

Jameson, Fredric. *The Cultural Turn: Selected Writings on the Postmodern*. Brooklin: Verso, 1998.

Kelly, Kevin. *The Inevitable*. New York: Viking, 2016.

Koenitz, Hartmut, Ferri, Gabriele, Haahr, Mads, Sezen, Diğdem, Sezen, Tonguç İbrahim. *Interactive Digital Narrative: History, Theory and Practice*. New York: Routlewdge, 2015.

Koskimaa, Raine. Digital Literature. From Text to Hypertext and Beyond. 2000, http://users.jyu.fi/~koskimaa/thesis/thesis.shtml

Kristiansen, Kristian. "Towards a new paradigm? The Third Science Revolution and its Possible Consequences in Archaeology". *Current Swedish Archaeology*, 22 (2014), http://www.arkeologiskasamfundet.se/csa/Dokument/Volumes/csa_vol_22_2014/csa_vol_22_2014_s11-34_kristiansen.pdf.

Kuncevičius, Albinas, Laužikas, Rimvydas, Jankauskas, Rimantas, Augustinavičius, Renaldas, Šmigelskas, Ramūnas. *Dubingių mikroregionas ir Lietuvos valstybės ištakos*. Vilnius: Petro ofsetas, 2015.

Lapienytė, Jurgita, Jokūbaitis, Marius. "Ką verslūs lietuviai padarė iš „Uber": veikia kaip taksi su „centriuku"". *15 min*, March 5, 2017, http://www.15min.lt/verslas/naujiena/transportas/ka-verslus-lietuviai-padare-is-uber-veikia-kaip-taksi-su-centriuku-667-762942.

Laužikas, Rimvydas, Kuncevičius, Albinas, Žižiūnas, Tadas, Žilinskas. Egidijus. "Automated heritage monitoring software prototype implementing 3D technologies". *The 44th Computer Applications and Quantitative Methods in Archaeology*. Conference (CAA 2016). Oslo, March 29, 2016 – April 2, 2016.

Lee, Daniel B. "Ritual and the Social Meaning and Meaninglessness of Religion". *Soziale Welt* 56.1 (2005): 5-16.

Lindstrom, Martin. *Brand Sense: Sensory Secrets Behind the Stuff We Buy*. New York: Free Press, 2010.

Lindstrom, Martin. *BrandChild: Remarkable Insights into the Minds of Today's Global Kids and Their Relationship with Brands*. London: Kogan Page Publishers, 2004.

Lindstrom, Martin. Small Data: The Tiny Clues That Uncover Huge Trends. New York, St. Martin's Press, 2016.

Liptak, Adam, Alter, Alexandra. "Challenge to Google Books Is Declined by Supreme Court. *New York Times*, April 18, 2016, https://www.nytimes.com/2016/04/19/technology/google-books-case.html?_r=0.

Lotman, Yuri M. "On the semiosphere". *Sign Systems Studies* 33.1 (2005):

205-229, http://www.flfi.ut.ee/sites/default/files/fl/lotman_2005_on_the_semiosphere.pdf.

Manovich, Lev. *The Language of New Media*. Cambridge, Mass.: MIT Press, 2001.

Marx, Karl. *Das Kapital: Kritik der politischen Oekonomie*. Hamburg: Verlag von Otto Meissner, 1867.

Mayer-Schönberger, Viktor, Cukier, Kenneth. *Big Data: A Revolution that Will Transform how We Live, Work, and Think*. Boston: Houghton Mifflin Harcourt, 2013.

McLuhan, Marshall. *Understanding Media: The Extensions of Man*. New York: McGraw Hill, 1964.

McLuhan, Marshall. *The Gutenberg Galaxy: The Making of Typographic Man*. Toronto: University of Toronto Press, 1962.

Mears, Chris. "Digital Tribes – Creating Behaviour Change in Users". *theUXreview*, October 29, 2013, http://theuxreview.co.uk/digital-tribes-creating-behaviour-change-users.

Micoleta, Julianne. "Generation Z Teens Stereotyped As 'Lazy And Unaware'". *The Huntington Post*, June 03, 2012, http://www.huffingtonpost.com/2012/03/06/apathetic-teens-generatio_n_1323577.html.

National Core Curriculum. Finnish National Board of Education, 2014, http://www.oph.fi/english/curricula_and_qualifications/basic_education/curricula_2014.

Neate, Rupert. "Amazon Go store lets shoppers pick up goods and walk out". *The Guardian*, December 5, 2016, https://www.theguardian.com/business/2016/dec/05/amazon-go-store-seattle-checkouts-account.

OECD PISA (The Programme for International Student Assessment). OECD, 2017, http://www.oecd.org/pisa/aboutpisa.

Open source Philosophy. Canonical Ltd., 2017, https://www.ubuntu.com/about/about-ubuntu/our-philosophy.

Ostaeyen, Pieter Van. "Why have IS jihadists targeted Belgium?". *BBC News*, March 25, 2016, http://www.bbc.com/news/world-europe-35882372.

Palm, Jonas. "The Digital Black Hole". *Training for Audiovisual Preservation in Europe*, 2005, http://www.tape-online.net/docs/Palm_Black_

Hole.pdf.

Pandolfini, Bruce. Kasparov and Deep Blue: The Historic Chess Match Between Man and Machine. St. Paslmer: Fireside Books, 1997.

Panethiere, Darrell. "The Persistence of Piracy: The Consequences for Creativity, for Culture, and for Sustainable Development". *UNESCO e-Copyright Bulletin* July-September (2005), http://portal.unesco.org/culture/en/files/28696/11513329261panethiere_en.pdf/panethiere_en.pdf.

Pine, Joseph B. II, Gilmore, James H. "Welcome to the Experience Economy". *Harward Busines Review*, July-August issue (1998), https://hbr.org/1998/07/welcome-to-the-experience-economy.

Popper, Ben. "Cyborg America: inside the strange new world of basement body hackers". *The Verge Magazin*, August 8, 2012, http://www.theverge.com/2012/8/8/3177438/cyborg-america-biohackers-grinders-body-hackers.

Prigogine, Ilya, Stengers, Isabelle. *The End of Certainty*. New York: Free Press. 1997.

Putnam, Robert D. *Democracies in Flux: The Evolution of Social Capital in Contemporary Society. Oxford:* Oxford University Press*, 2002.*

Renfrew, Colin, Bahn, Paul. *Archaeology: Theories, Methods and Practice*. London: Thames & Hudson, 1991.

Riley, Melanie, A. Automated Detection of Prehistoric Conical Burial Mounds From Lidar Bare–Earth Digital Elevation Models. Northwest Missouri State University, 2009, http://www.nwmissouri.edu/library/theses/2009/RileyMelanie.pdf.

Robinson, Peter, Turnbull, Paul, Liu, Alan, McCarty, Willarad. "Research Futures". In *Advancing Digital Humanities*, edited by P. Longley Arthur, K. Bode, 243-322. New York: Palgrave Macmillan, 2014.

Rogers, Everett M. *Diffusion of innovations*. New York: Free Press of Glencoe, 1962.

Shanks, Michael. *Let me tell you about Hadrian's Wall : heritage, performance, design*. Amsterdam: Reinwardt Academie, Amsterdamse Hogeschool voor de Kunsten, 2012.

Simo, Fidji. "The Latest on Facebook Video". *Facebook Newsroom*, September 7, 2014, http://newsroom.fb.com/news/2014/09/the-latest-on-facebook-video/.

Simon, Nina. *The Participatory Museum*. Santa Cruz: Museum 2.0, 2010, http://www.participatorymuseum.org/read.

Smith, Laurajane. *All Heritage is Intangible: Critical Heritage Studies and Museums*. Amsterdam: Reinwardt Academie, Amsterdamse Hogeschool voor de Kunsten, 2011.

Stephany, Alex. *The Business of Sharing: Making it in the New Sharing Economy*. New York: Palgrave Macmillan, 2015.

Strauss, William, Howe, Neil. *Generations: The History of American's Future, 1584 to 2069.* New York: Morrow, 1991.

Trier, Øivind Due, Zortea, Maciel. "Semi–automatic detection of cultural heritage in lidar data". *Proceedings of the 4th GEOBIA*, May 7–9, 2012, http://mtc–m18.sid.inpe.br/col/sid.inpe.br/mtc–m18/2012/05.17.16.52/doc/039.pdf.

Unemployment statistics. Eurostat, 2017, http://ec.europa.eu/eurostat/statistics-explained/index.php/Unemployment_statistics.

UNIMARC Strategic Programme, https://www.ifla.org/unimarc.

Uther, Hans-Jörg. *The Types of International Folktales: A Classification and Bibliography. Based on the system of Antti Aarne and Stith Thompson* (Three volumes). Helsinki: Suomalainen Tiedeakatemia, 2010-2011.

Waymo. Alphabet Inc., 2017, https://waymo.com.

World Population to 2300. New York: United Nations, 2004, http://www.un.org/esa/population/publications/longrange2/WorldPop2300final.pdf.

Zacher, Lech W. "Człowiek utechniczniony i zwirtualizowany w hybrydowym świecie". In *Wirtualizacja. Problemy, wyzwania, skutki*, edited by L. Zacher, 111-128. Warszawa: Poltext, 2013.

PROMJENE PRAKSE POVEZANE S BAŠTINOM I UPRAVLJANJEM ZNANJEM TEMELJENE NA DIGITALNIM UČINCIMA

Ključne riječi:
kulturna baština, digitalna kultura, umreženo društvo, metafore

Sažetak

Brzo širenje informatike donijelo je velike promjene u razvoju društva. Istraživanja u poslovnom sektoru omogućuju nam da raspravljamo o novim konceptualizacijama baštine, kao i o promjenama načina funkcioniranja baštine u društvu i praksama povezanim s baštinom i upravljanjem znanjem u cjelokupnom kontekstu digitalne kulture. U tom kontekstu, baština je osuvremenjena: funkcionira ne toliko kao znanje iz prošlosti, već više kao element sadašnje kulture. Tako je izbrisana linija između baštine (koja pripada prošlosti i predstavlja prošlu kulturu) i suvremene kulture. U članku se razmatraju elementi digitalne kulture važni za praksu povezanu s baštinom te upravljanje znanjem: tekstualnost i vizualnost, otvorenost i zatvorenost, tekstualni i objektno usmjereni pristupi, koncentracija i decentralizacija, stručnost i nabava iz mnoštva, statička priroda te interaktivnost, jednosmjerna komunikacija i sudjelovanje, gejmifikacija i tako dalje.

PROVENANCE IN THE CONTEXT OF DIGITAL CULTURAL HERITAGE CONTENT
THE LITHUANIAN APPROACH

Regina Varnienė-Janssen
Faculty of Communication, Vilnius University, Vilnius, Lithuania

Albertas Šermokas
Faculty of Mathematics and Informatics, Vilnius University, Vilnius, Lithuania

Keywords:
provenance, digital environment, data quality, trustfulness of information, Lithuania's Information System of the Virtual Electronic Heritage (VEPIS)

Abstract

The main objective of this article is to highlight issues of provenance in the digital environment as a fundamental concept of data quality. The article seeks to theoretically substantiate the notion that the provenance of information is crucial for determining the trustworthiness of information. By applying the EU 2–3–6 concept of added value for electronic publishing and qualitative content analysis of research literature, we conceptualized the following processes of provenance: Content Creation, Content Packaging, Market Making, Delivery Support and Services, and Interface and Systems. This approach also enabled us to identify the functions of provenance as well as their dimensions, and define provenance-related added value in Lithuania's Information System of the Virtual Electronic Heritage (VEPIS).

Introduction

Before delving into issues of provenance within the digital environment, we will discuss the provenance of information in traditional media. The Oxford Wordfinder dictionary states that provenance (from Latin "*provenire*, "come forth", "arise") is "the place of origin or history of a work of art, etc.".[1] The most frequent indications of the book's provenance are exlibris, stickers, inscriptions and stamps. Identification of provenance shows the history and development of a library and its cultural connections; it also helps reconstruct older collections of books. As an example we can take the section of the website of the National Library of Lithuania "Provenances," and analyse how the provenance of documents preserved at the Library is treated. We searched the website for Mykolas Kleopas Oginskis (1765–1833), one of the most sophisticated members of the Oginsky family and a citizen of the Federal Monarchy of the Kingdom of Poland and Grand Duchy of Lithuania, the centenary of whom we celebrated in 2015. He was a man of European outlook, a patriot of his homeland, politician, diplomat and composer (undoubtedly everyone knows his famous "Polonaise"). At the age of 20, he became a member of the Parliament (Seimas) and diplomat. We can see how this person and other persons related to him are treated within the Provenance Catalogue of the National Library. The Catalogue provides a list of owners of documents and types of provenance indicators (?), the most important of which are inscriptions, stamps, stickers and exlibris. We retrieved a list of provenances of personal documents. Since the list did not include Mykolas Kleopas Oginskis's name, we searched for documents owned by the second wife of his son Irenėjus Kleopas Oginskis, Olga Kalinowska-Ogińska, (1808–1863), who was a lady-in-waiting at the palace of Czar Alexander II. She was well-known in Saint Petersburg for her excellent musical education and taste. The picture shows her inscription in a document of the Oginsky family preserved at the National Library (Figure 1). Provenances of documents provide significant historical information and evidence of historical and cultural traditions as well as the history of publishing.

1 *Reader's Digest Oxford Complete Wordfinder* (Pleasantville, N.Y.: Reader's Digest Association, 1993), 1227.

Figure 1 The seal of Olga Oginskienė (Kalinowska-Oginska, 1820–1899) in the book "Histoire de L'Angleterre"

Everything that was said above about provenance within traditional media is known by everyone who is interested in this field. However, within the digital environment, this issue gets more complicated. The World Wide Web Consortium (W3C) defines provenance as a record that describes people, institutions, entities and activities involved in producing, influencing or delivering a data element or thing. Therefore, it is no accident that the investigation of provenance in the digital environment has formed a major focus since 2005, when the definition of provenance was formulated. That definition states that, "Provenance of a resource is a record that describes entities and processes involved in producing and delivering or otherwise influencing that resource. Provenance provides a critical foundation for assessing authenticity, enabling trust, and allowing reproducibility."[2] Requirements for provenance on the Web (Web3) were subsequently defined and ontologies, models and standards identifying starting points for provenance representations as well as elements of the provenance architecture created. Provenance is essential for tracking attribution and credit in curated databases. It is essential for decision makers to make trust judgments about the information they use over the

2 W3C Provenance Incubator Group, Semantic Web Activity World Wide Web Consortium, *Overview of Provenance on the Web*, https://www.w3.org/2005/Incubator/prov/wiki/images/0/02/Provenance-XG-Overview.pdf.

Semantic Web. Therefore, an increasing number of scientific publications regarding provenance have appeared. As far back as 2010, Luc Moreau highlighted the importance of provenance by stating that "A total of 425 papers have been identified. The first publication dates back from 1986 and describes an auditing technique to assist analysts in understanding and validating data results. […] about half the papers were published in the last two years."[3]

The main objective of this paper is to highlight issues of provenance in the digital environment as a fundamental concept of data quality drawing on the results of the qualitative analysis of research literature and documentation of Lithuanian's Information System of the Virtual Electronic Heritage (hereafter "VEPIS", *Virtuali elektroninio paveldo informacinė sistema*), as well as to evaluate the added value of VEPIS regarding provenance.

Methodology of the research

The research presented in this paper is primarily focused on the 2–3–6 concept for added value creation developed by the European Commission and serving as the basis for the 2–3–6 concept for creating added value in electronic publishing (Figure 2).[4] It is a concept of value chains. Value activities are defined as processes that create value for the customer. By applying this concept, it is possible to do qualitative analyses of activities and behaviour within a certain field and visualize them, e.g., the impact of provenance on the trustworthiness and accuracy of information. For this purpose, by relating value-creating activities, the role of every agent is determined. The analysis of the dynamic development of the resulting combinations shows the potential of every model, standard and system. This article applies the 2–3–6 Concept as a framework to identify developments in the creation of provenance information within the digital envi-

3 Luc Moreau, "The Foundations for Provenance on the Web Foundations and Trends," *Web Science*, 2:2-3 (2010): 99-241, doi: 10.1561/1800000010, https://eprints.soton.ac.uk/271691/1/survey.pdf.

4 *Strategic Developments for the European Publishing Industry Towards the Year 2000*. Created by European Commission, DG XIII, Andersen Consulting, 1996, http://www.echo.lu/elpub2/en/exengl.pdf.

ronment. This research is based on the presumption that this structure reflects the current structure (the *status quo*) of creating digital provenance, which is the main criterion for data quality. We start with the assignment of identified core processes and their activities to relevant players such as models, working groups and implemented systems, and proceed to qualitative analysis of scientific literature and the VEPIS Specification as well as its operational functions. VEPIS is the largest national system in Lithuania using the OAIS Reference Model for the preservation of museum artefacts, archival documentation and library documents, modern and rare books manuscripts, and so forth. Taking into account the functionality of VEPIS on the national and international levels, it is feasible to determine provenance-related added value of this system.

Having briefly introduced the methodology of the research, we will proceed to the results of the research itself. Drawing on this established model for the provenance-related added value of VEPIS l, we might conclude that the added value of VEPIS is generated by employing the following six processes: *Content Creation*, *Content Packaging*, *Market Making*, *Transport*, *Delivery Support and Services*, and *Interface and Systems.* Such a methodological approach correlates with the approach declared by the W3C Provenance Working Group, implying that the key categories of provenance are *Content*, *Management* and *Use*. Therefore, the research is based on the presumption that the above-described methodology is suitable for investigating provenance within the digital environment and analysing services and products of VEPIS from the point of view of added value.

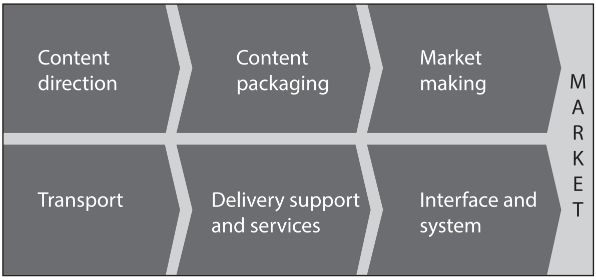


Figure 2 The 2-3-6 Concept for added value for electronic publishing[5]

5 *Strategic Developments for the European Publishing Industry Towards the Year 2000*, op. cit.

Research results: The model of provenance related added value of VEPIS

Content Creation Process

The process of *Content Creation* refers to the structure and meaning of provenance records. It is based on one function – *Identifying the Scope of Provenance Content*. In order to conceptualize this function, we analysed the Open Provenance Model (OPM), Requirements for Provenance on the Web by the W3C Provenance Working Group, the ontology of CRM-dig (the extension of CIDOC-CRM to support provenance metadata), OAIS, RDF and the so-called provenance-aware applications models as well as research literature on provenance.

Table 1 The model of provenance-related added value of VEPIS: *Content Creation Process*

CONTENT CRETATION PROCESS			
Functions	**Dimension**	**Substantiating statements**	**Substantiating statements for VEPIS**
Identifying the Scope of Provenance Content	*Object*	The **artefact** that a provenance statement is about	
	D1 Digital Object	Digital object comprises identifiable immaterial items that can be represented as sets of bit sequences such as data sets, e-texts, etc. *CRM$_{dig}$, version 3.2.1*	Implemented within VEPIS by using CRM$_{dig}$
	Attribution	The **source or entities** that contributed to creating the artefact in question *Groth et al.,"Requirements for Provenance on the Web"*	

The following dimensions were established: *Object*, *Digital Object*, *Attribution*, *Artefact*, *Agent, Person Name, Place (Room)*, *Digital Machine Event, Process*, *Digitization Process, Software Execution, Digital Measurement, Versioning*, *Justification* and *Entailment.*

The first dimension is *Object,* which states that we need to establish first what the artefact is that a provenance statement is about. The Requirements for Provenance on the Web by the W3C Provenance Working Group state that "On the Web this will be a Web resource, essentially anything that can be identified with a URI such as Web documents, datasets, assertions or services. Sometimes provenance information refers to a particular portion or aspect of the artefact. It is especially challenging to keep track of provenance during the object's lifetime as it migrates among different systems. For example, objects may be organized in collections, selected subgroups or portions of some modified objects or the document may be disseminated on the Web and its copies further modified."[6]

The second dimension is *D1 Digital Object*, which, according to CIDOC CRMdig, "comprises identifiable immaterial items that can be represented as sets of bit sequences such as data sets, e-texts, images, audio or video items, software, etc. and are documented as single units. Any aggregation of instances of *D1 Digital Object* and treated as single unit is also regarded an instance of *D1 Digital Object*. This means that, for instance, the content of a DVD, an XML file on it or an element of this file are regarded as distinct instances of *D1 Digital Object* mutually related by the *P106 is composed of (forms part of) the property*. *D1 Digital Object* does not depend on a specific physical carrier and it may exist on one or more carriers simultaneously."[7]

The third dimension is *Attribution*; according to the Requirements for Provenance on the by the Web W3C Provenance Working Group, it refers to the sources (i.e., typically any Web resource or document that has an associated URI, Web sites or data) or entities (i.e., people, organizations

6 Paul Groth, Yolanda Gill, James Cheney and Simon Miles, "Requirements for Provenance on the Web," *The International Journal of Digital Curation*, 7:1 (2012): 39-56, doi: 10.2218/ijdc. V7il.213, http://www.ijdc.net/index.php/ijdc/article/viewFile/203/272.

7 *CRMdig: Model for provenance metadata*. Version 3.2.1, April, 2016, http://www.ics.forth.gr/isl/CRMext/CRMdig/docs/CRMdig_v3.2.1.pdf.

and other identifiable groups) that contributed to the creation of the artefact in question).[8]

Table 2 The model of provenance-related added value of VEPIS: *Content Creation Process* (cont.)

CONTENT CREATION PROCESS			
Functions	**Dimension**	**Substantiating statements**	**Substantiating statements for VEPIS**
Identifying the Scope of Provenance Content	*Artifact*	Immutable piece of state, which may have a physical embodiment in a physical object, or a digital representation in a computer system. *Moreau et.al., "The Open Provenance Model: Core specification (v1.1)"p. 2*	
	Agent	**Contextual entity** acting as a catalyst of processes enabling, facilitating, controlling or affecting its execution. *Moreau et.al., "The Open Provenance Model: Core specification (v1.1), p.3."*	

The fourth dimension is *Artifact*, which, according to the Open Provenance Model (hereafter OPM),[9] is an immutable piece of state, which may have physical embodiment in a physical object, or a digital representation in computer system.

The fifth dimension *Agent*, according to OPM, represents a contextual entity acting as a catalyst of processes enabling, facilitating, controlling or affecting its execution.

8 Groth et al., "Requirements for Provenance on the Web".
9 Luc Moreau et al., "The Open Provenance Model Core Specification (v1.1)," *Future Generation Computer Systems*, 27 (2011): 743-756, https://pdfs.semanticscholar.org/4181/c0d8284d8737f6123236574769 0297e31c82.pdf.

TABLE 3 The model of provenance related added value of VEPIS: *Content Creation Process* (cont.)

CONTENT CREATION PROCESS			
Functions	**Dimension**	**Substantiating statements**	**Substantiating statements for VEPIS**
Identifying the Scope of Provenance Content	*D21 Person Name*	**Subclass of *E82 Actor Appellation*** The class *E82 Actor Appellation* comprises the proper noun name that identifies a person who acts as an entity. *CRM_{dig}, version 3.2.1*	Implemented within VEPIS by using CRM_{dig}
	D23 Room (Place)	Subclass of E53 Place. This class comprises a small scale space that contains manipulable objects and returns the bodily experiences of how people assimilate image schemata. *CRM_{dig}, version 3.2.1*	Implemented within VEPIS by using CRM_{dig}

The sixth dimension, according to CRMdig, is *D21 Person Name*. It is a subclass of *E82 Actor Appellation*. This class comprises a proper noun name that identifies a person who acts as an entity. Properties: *L51 has first name* and *L52 has last name* (CRMdig).

The seventh dimension, according to CRMdig, is *Room*, which in turn may be related to other things. It is a subclass of *D23 Room* of *E53 Place.* This class comprises small-scale space that contains manipulable objects and retains the bodily experiences of how people assimilate image schemata (CRMdig).

Table 4 The model of provenance related added value of VEPIS: *Content Creation Process* (cont.)

CONTENT CREATION PROCESS			
Functions	**Dimension**	**Substantiating statements**	**Substantiating statements for VEPIS**
Identifying the Scope of Provenance Content	*D7 Digital Machine Event*	**Events** that happen on physical digital devices following a human activity that intentionally caused its immediate or delayed initiation and results in the creation of a new instance of *D1 Digital Object* on behalf of the human actors *CRM_{dig}, version 3.2.1*	Implemented within VEPIS by using CRM_{dig}

The eighth dimension, according to CRMdig, is *D7 Digital Machine Event*. This class comprises events that happen on physical digital devices following a human activity that intentionally caused its immediate or delayed initiation and results in the creation of a new instance of *D1 Digital Object* on behalf of the human actor (agent). The input of a *D7 Digital Machine Event* may take the form of parameter settings and/or data to be processed. Some *D7 Digital Machine Events* may form part of a wider *E65 Creation Event*. In this case, all the machine output of the partial events is regarded as creation of the overall activity.

Table 5 The model of provenance related added value of VEPIS: *Content Creation Process* (cont.)

CONTENT CREATION PROCESS			
	Dimension	**Substantiating statements**	**Substantiating statements for VEPIS**
Functions *Identifying the Scope of Provenance Content*	*Process*	**Activities** (or steps) that were carried out to generate the artefact at hand *Groth et al., "Requirements for Provenance on the Web"*	Implemented within VEPIS by using $\mathrm{CRM}_{\mathrm{dig}}$
	Process	**Action or series of actions** performed on or caused by artefacts and resulting in new artefacts *Moreau et.al., "The Open Provenance Model: Core specification (v1.1)"*	
	D2 *Digitization Process*	**The type** of the process and techniques applied *Doer, Theodoridou, "$CRM_{dig:}$ A Generic Digital Model for Scientific Observation"*	Implemented within VEPIS by using $\mathrm{CRM}_{\mathrm{dig}}$
	D10 Software Execution	**Events** by which a digital device runs a software program or series of computing operations on a digital object *CRM_{dig}, version 3.2.1*	Implemented within VEPIS by using $\mathrm{CRM}_{\mathrm{dig}}$
	D11 Digital Measurement Event	**Actions** measuring physical properties using a digital device *CRM_{dig}, version 3.2.1*	Implemented within VEPIS by using $\mathrm{CRM}_{\mathrm{dig}}$

Process, according to the W3C Provenance Working Group, means *activitie*s (or steps) that were carried out to generate the artefact at hand. According to OPM, the *process* means *actions* or *series* performed on or caused by artefacts and resulting in new artefacts. Acording to CRMdig, the class Digitization Process (D2) comprises events that result in the creation of instances of *D9 Data Object* that represent the appearance and/or form of an instance of *E18 Physical Thing* such as paper documents, paintings etc. Within VEPIS, we implemented the terminology of CRMdig *D2 Digitization Process* , *D10 Software Execution* and *D11 Digital Measurement*, i.e. events that happened within VEPIS and actions measuring physical properties.

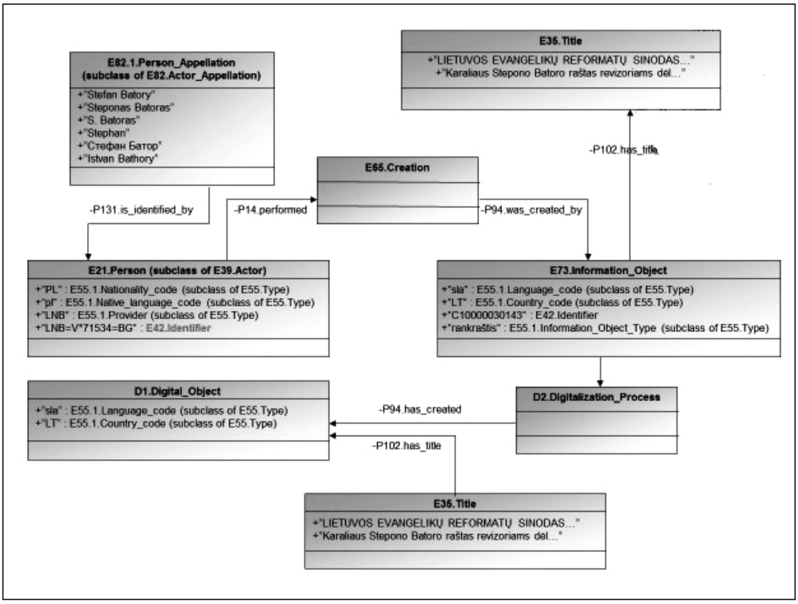


Figure 3 The digitization process of the manuscript by Steponas Batoras, the Duke of the Grand Duchy of Lithuania and King of Poland

The Figure 3 illustrates the digitization process and its description in CRMdig classes within VEPIS. The Person Steponas Batoras, the Duke of the Grand Duchy of Lithuania, is identified by Class *E21* as being of Polish nationality; he performed creation (Class *E65 was created*). The Information Object is the manuscript in the Ruthenic language, which has the title "Lietuvos Evangelikų reformatų sinodas". This information object was digitized during *D2 Digitization Process* and created as *D1 Digital Object*, which has the same title "Karaliaus Stepono Batoro raštas revizoriams dėl […]".

Table 6 The model of provenance related added value of VEPIS: *Content Creation Process* (cont.)

CONTENT CREATION PROCESS			
Functions	**Dimension**	**Substantiating statements**	**Substantiating statements for VEPIS**
Identifying the Scope of Provenance Content	*Versioning*	**Records of changes** to or between artefacts over time and what entities and processes were associated with these changes *Groth et al., "Requirements for Provenance on the Web"*	Implemented within VEPIS by using CRM_{dig}
	Justification	**Documentation** recording why and how a particular decision is made *Groth et al., "Requirements for Provenance on the Web"*	Implemented within VEPIS by using CRM_{dig}

The dimension *Versioning*, according to W3C Provenance Working Group, has to be understood as records of changes to or between artefacts over time, and what entities and processes were associated with those changes.

Justification is another dimension of the content of provenance creation. According to W3C Provenance Working Group, it is the justification of decisions, which means why and how a particular decision is made. The purpose of justification is to allow those decisions to be discussed and understood. Some provenance information may be directly asserted by the relevant sources of some data or actors in a process, while other information may be derived from that which was asserted.

Table 7 The model of provenance related added value of VEPIS: *Content Creation Process* (cont.)

CONTENT CREATION PROCESS			
Functions	**Dimension**	**Substantiating statements**	**Substantiating statements for VEPIS**
Identifying the Scope of Provenance Content	*Entailment*	**Explanations** showing how facts were derived from other facts *Groth et al., "Requirements for Provenance on the Web"*	Implemented within VEPIS by using CRM_{dig}

Entailment is the dimension of the process *Content Creation* and represents explanations that show how facts were derived from other facts. Some provenance information may be directly asserted by relevant sources of some data or actors in a process, while other information may be derived from that which was asserted. In general, one fact may entail another: it is important in the case of provenance data that is inherently describing the past, for which the majority of facts cannot now be known.

Versioning, Justification and *Entailment* within VEPIS as an OAIS and service-oriented architecture, is based on messages which invoke services and which may themselves act as clients for other services. *Versioning*, *Justification* and *Entailment* encompass the execution of a computer program to which we can explicitly point, a physical act to which we can only refer, and some action performed by a person that can only be partially represented. *Versioning*, *Justification* and *Entailment* also serve as a standard way within VEPIS to find provenance for a given resource. Within VEPIS, *Versioning, Justification* and *Entailment* are modelled as subclasses of both *Digital Machine Event* and *Measurement*, thus allowing for correlation of the measured object with the device that did the measurement.

Luc Moreau states that "many provenance approaches support a notion of time, so that users can refer to executions or data products according to the time at which they took place or were produced."[10] Within VEPIS the place where the object was created (Vilnius), organization (National Library of Lithuania or other institution) and time (when the digital object was produced) are all presented in the field for notes of UNIMARC format.

Results from investigating the Content Creation Process

Having summarized the conceptualization of the first process, we could state that at present there is no uniform terminology of the content of provenance, though some of the terms are duplicates and some are identical. Within various models, some of dimensions bear the same names (e.g., *Process* within both OPM and requirements by the W3C Provenance Working Group) but their interpretation differs. Within VEPIS the CRMdig terminology and the dimensions *Digital Object*, *Person Name, Place (Room)*, *Digital Machine Event, Digitization Process, Software Execution* and *Digital measurement* were implemented, thus allowing for the identification of the context of the digitization process and derivation chain. We could also state that it correlates with the dimensions of *Versioning, Justification* and *Entailment* identified by the W3C Provenance Working Group in the Requirements for Provenance on the Web.

Given the fact that VEPIS is based on CRMdig, within which the concept *Event* allows tracing the history of an object, it is possible to adequately describe the conditions under which the new version of the object was created. We conclude that the *Content Creation Process* generates provenance-related added value within VEPIS.

The three dimensions of the scope of the provenance content – *Versioning*, *Justification* and *Entailment* – are closely connected with the identity of the resource. The identity of a resource is intended to have a very wide meaning, not only its unique designation and/or identification. Identity refers to *the whole* of the characteristics of a resource that uniquely identifies it and distinguishes it from any other resource. In addition to its

10 Moreau, "The Foundations for Provenance on the Web Foundations and Trends", 26.

internal conceptual structure, it refers to its general context (e.g., legal and technological). Given that VEPIS is based on the OAIS Reference Model which strongly relates *Context Provenance*, *Fixity*, and *Reference Information* within the system, it could be stated that VEPIS provides for the identification of preserved objects.

Another important aspect of provenance information is *verification of authenticity* in terms of the identity and integrity of the digital objects by providing content and contextual information during the whole preservation process**.** Since VEPIS is based on the OAIS model, the Preservation Description Information (hereafter "PDI") is specially focused on by describing the past and present states of the content information. PDI is made up of four types of information, which must be presented in an Archival Information Package. One of the types of information is provenance, which describes the source of content information. Provenance information also can be considered "event-based" metadata describing the object as a dynamic entity. This information is to be collected, maintained and interpreted together as much as possible as a set of relationships defining the resource itself. Since VEPIS is based on the OAIS model and contains this type of information, the Archival Information Packages, which are designed following the Metadata Encoding and Metadata Transmission Standard (METS), encode descriptive, administrative and structural metadata in XML. VEPIS provides metadata about the digitization process and object in context, since it is both the object itself and the relationships that provide complete meaning to it. We could conclude that VEPIS documents the complete history of the resource.

Another standard way for realizing *Versioning*, *Justification* and *Entailment* of the object within VEPIS are components which are based on CRM dig. One of them is *Component of Format Conversion,* which (1) ensures the compatibility of descriptive metadata of digitized objects from diverse institutions by transforming supplied metadata following the CIDOC-CRM data model and by using semantic software applications allowing syntactical interoperability to be established between terms within controlled vocabularies of different institutions belonging to the same problematic area; (2) links terms from different controlled vocabularies, (3) establishes syntactical links between terms to be used in searching and discovering objects and associated terms from different control vocabularies; (4) identifies semantic groups of objects: principal classes of CIDOC CRM including personal names, geographical names, time periods and subjects; and (5) automatically saves descriptive metadata of the work into digital copies adjusted for presenting online. The dimensions *Versioning*, *Justification* and *Entailment* within VEPIS are also realized by the component *Data Verification*. This ensures control of data loaded into VEPIS in line with the requirements for quality, comprehensiveness and excellence of data. The dimensions *Versioning*, *Justification* and *Entailmen*t within VEPIS are also realized by the component *Logging IS Events*. This enables presenting information from the log of the manager of the VEPIS data, i.e., (1) tracking the import of digitized objects from VEPIS data providers and systems supporting the OAI-PMH protocol, (2) presenting information about digitized objects which satisfy/do not satisfy the requirements for quality, comprehensiveness and excellence of data.

Content Packaging Process

Table 8 The model of provenance-related added value of VEPIS: *Content Packaging Process*

CONTENT PACKAGING PROCESS			
Functions	Dimension	Substantiating statements	Substantiating statements for VEPIS
Implementation of Provenance Data Models	Open Provenance Model	Defines a core set of rules that identify the valid inferences that can be made on provenance representation *Moreau et.al., "The Open Provenance Model: Core specification (v1.1)"*	

CONTENT PACKAGING PROCESS			
Functions	Dimension	Substantiating statements	Substantiating statements for VEPIS
Implementation of Provenance Data Models	W3C Provenance Working Group Model	Modelling what should be contained in the provenance data (its content) will have different concerns from developing software to capture and maintain the data (its management), and different concerns again from those providing solutions to solve specific user problems (its use) *Groth et al., "Requirements for Provenance on the Web"*	
	CRMdig	CRMdig is the key to provenance metadata. It describes and integrates the digital provenance with the physical object that has been measured. CRMdig is an ontology as well as the RDF schema to encode metadata about the steps and methods of production ("provenance") of digitization products and synthetic digital representations Doer, Theodoridou, "CRMdig: A Generic Digital Model for Scientific Observation"	Implemented within VEPIS
	Implemented within VEPIS		
	OAIS Reference Model	Provides a framework for understanding archival concepts needed for long-term preservation of digital information and its access *ISO 14721:2012 Space data and information transfer systems – Open archival information system (OAIS) – Reference Model*	

Going further along the added value chain of provenance, we come to the process *Content Packaging*, which refers to structuring and modelling provenance information. This process is based

on two functions: *Implementation of Provenance Data Models* and *Adaptation of Provenance Metadata Standards*. The first function is realized by the following dimensions: OPM, CRMdig, OAIS, RDF and the so-called *Provenance-Aware Applications Models.*

The first dimension of the function *Implementation of Provenance Data Models* is OPM, which: (1) allows provenance information to be exchanged between systems by means of a compatibility layer based on a shared provenance model, (2) allows developers to build and share tools that operate on such a provenance model, (3) defines provenance in a precise, technology-agnostic manner, (4) supports digital representation of provenance for any "thing", whether produced by computer systems or not, (5) allows multiple levels of description to coexist, and (6) defines a core set of rules that identify the valid inferences that can be made on provenance representation. According to the specification of the OPM, it allows for the capture of the causal dependencies between artefacts, processes and agents. There are some definitions of dependencies (ontology): causal relationship, artefact used by a process, artefacts generated by processes, processes triggered by processes, artefact derived from artefact, and processes controlled by Agent and Role.[11]

The second dimension of the function is *W3C Working Group Model,* which models what should be contained in the provenance data (its content); "it will have different concerns from the developing software to capture and maintain the data (its management) and again different concerns from those providing solutions to solve specific user problems (its use)."[12] It provides description of the categories and their dimensions. The Working Group also developed the dependencies (ontology) (PROV-O). Three classes provide the basis for PROV-O ontology: *Entity* (a physical, digital, conceptual or other kind of thing with some fixed aspects; entities, which may be real or imaginary; *Activity* (something that occurs over a

11 Moreau et al., "The Open Provenance Model Core Specification (v1.1)".
12 Groth et al., "Requirements for Provenance on the Web".

period of time and acts upon or with entities; it may include consuming, processing, transforming, modifying, relocating, using or generating entities); and *Agent* (something that bears some form of responsibility for an activity taking place, for the existence of an entity or for another agent's activity). The PROV-O ontology provides a set of classes, properties and restrictions that can be used to represent and interchange provenance information generated in various systems and under various contexts. It may also be customized to create new classes and properties to model provenance information for differen*t* applications and domains.

The third dimension is of the function *Implementation of Provenance Data Models* is C*RMdig.* This model describes and integrates digital provenance with the physical object that has been measured. CRM*dig* is both an ontology and the RDF schema to encode metadata about the steps and methods of production ("provenance") of digitization products and synthetic digital representations. It is also the key to provenance metadata. The description of processes starts at the level of human activities or actions, which in turn, among others, "initiate machine events" on devices and computers and forms a connected graph through the data involved in multiple events in roles as input and output.[13]

The fourth dimension of the function *Implementation of Provenance Data Models* is *OAIS ISO 14721:2012,* defines the reference model for an open archival information system (OAIS). It meets a set of responsibilities defined in this standard; it allows an OAIS archive to be distinguished from other uses of the term "archive". It also expands consensus on the elements and processes for long-term preservation and access of digital information, promotes a larger market which vendors can support and guides the identification and production of OAIS-related standards.[14] In the context of this paper, it is important that OAIS suggests that PDI should contain provenance information documenting the history of the data object.

13 *CRMdig: Model for Provenance Metadata*.

14 *ISO 14721:2012 Space data and information transfer systems – Open archival information system (OAIS) – Reference Model*, https://www.iso.org/standard/57284.html.

Table 9 The model of provenance-related added value of VEPIS: *Content Packaging Process* (cont.)

Functions	Dimension	Substantiating statements	Substantiating statements for VEPIS
Implementation of Provenance Data Models	RDF	**Resource Description Famework** (RDF) is a family of W3C originally designed as a metadata model *RDF Schema 1.1*. W3C *Recommendation 25 February 2014*	Implemented within VEPIS
	Provenance-Aware Applications	**Provenance systems** that produce a description of their execution *Groth, Paul et al. An Architecture for Provenance Systems*[15]	
		Deterministic model: the location of any piece can be uniquely described by path. This model uses a variation of existing edge-labeled tree models for semistructured data. *Buneman, et al. Why and Where: A Characterization of Provenance*[16]	

The fifth dimension of the function *Implementation of Provenance Data Models* is *Resource Description Framework (RDF*), which was originally designed as a metadata model. It has come to be used as a general method for the conceptual description or modelling of information that is implemented in the Web using a variety of syntax notations and data serialization formats. It is also used in knowledge management applications.

15 Groth, Paul et al. *An Architecture for Provenance Systems,* https://www.researchgate.net/publication/39994555_An_Architecture_for_Provenance_Systems.

16 Buneman, Peter, Sanjeev Khanna and Wang-Chiew Tan. *Why and Were: A Characterization of Data Provenance*, https://repository.upenn.edu/cgi/viewcontent.cgi?article=1209&context=cis_papers.

The sixth dimension of the function *Implementation of Provenance Data Models* is *Provenance-Aware Application Model.* Systems based on this model produce a description of their execution and store this information in the provenance store. The provenance store also provides querying facilities to enable services to retrieve provenance of data items. The development of the architecture has been strongly influenced by the service-oriented architectural style, according to which services or actors interact with each other by exchanging messages.

Table 10 The model of provenance related added value of VEPIS: *Content Packaging Process* (cont.)

CONTENT PACKAGING PROCESS			
Functions	**Dimension**	**Substantiating statements**	**Substantiating statements for VEPIS**
Adaptation of Provenance Metadata Standards	*Descriptive Metadata Standards*	**MARC and MODS (PREMIS):** describe the intellectual entity through properties such as author and title and support discovery and delivery of digital content. It may also provide a history context by, for example, specifying which print material was the original source for digital derivation (source provenance) Dappert and Enders. Digital Preservation Metadata Standards	Implemented within VEPIS: EAD for archives; UNIMARC and MARC21, for libraries; and CDWA Lite and ESE, for museums

CONTENT PACKAGING PROCESS			
Functions	**Dimension**	**Substantiating statements**	**Substantiating statements for VEPIS**
Adaptation of Provenance Metadata Standards	Structural, Technical and *Administrative Metadata Standard*s	**METS:** METS standard, which is universally regarded as the most convenient XML schema reflecting the hierarchical structure of digital libraries, the related descriptive administrative metadata as well as names and locations of files comprising the digital object. *Dappert and Enders. Digital Preservation Metadata Standards*	Implemented within VEPIS

The second function of the process *Content Packaging* is *Adaptation of Provenance Metadata Standards*. The W3 Provenance Working Group concluded that provenance could be viewed as metadata, but not all metadata is provenance. Provenance provides a substrate for deriving different trust metrics and provenance records can be used to verify and authenticate among other uses. Three dimensions were established: *Descriptive Metadata* (MARC and MODS), *Structural Metadata*, *Technical Metadata* and *Administrative Metadata* (METS).

According to Angela Dappert and Markus Enders,[17] the main descriptive provenance metadata are *MARC* and *MODS,* which describe the in-

17 Angela Dappert and Markus Enders, "Digital Preservation Metadata Standards," *ISO: Information Standards Quarterly*, 22:2 (2010): 5-13, http://www.niso.org/apps/group_public/download.php/4299/isqv22no2.pdf.

tellectual entity through properties such as author and title and support discovery and delivery of digital content. This metadata may also provide a history context by, for example, specifying which print material was the original source for digital derivation.

Descriptive Metadata. In order to ensure long-term preservation of resources, it is essential to create separate bibliographic records for the original and its digitized object as it allows data to be included about physical and technical attributes of the digitized object, data about the rights and terms of use, and coded data necessary for long-term preservation and determining the publication from which the copy was made.

Within VEPIS the following standards are applied: EAD for archives; UNIMARC and MARC21, for libraries; and CDWA Lite and ESE, for museums.

UNIMARC[18] (the main metadata format of VEPIS) contains the following new fields for provenance: (1) 703 PERSONAL NAME – PROVENANCE OR OWNERSHIP (new), which includes the name of a person regarding any type of provenance and/or ownership (previous ownership or custodianship, author of signature, informal dedication annotations, etc.) that apply uniquely to the item; (2) 713 CORPORATE BODY NAME – PROVENANCE OR OWNERSHIP (new), which contains the name of a corporate body regarding any type of provenance and/or ownership (previous ownership or custodianship, author of signature, informal dedication, annotations, etc.) that apply uniquely to the item; and (3) 723 FAMILY NAME – PROVENANCE OR OWNERSHIP (new) which contains the name of a family regarding any type of provenance and/or ownership (previous ownership or custodianship) that applies uniquely to the item. The new fields provide for reflecting the provenance of documents in traditional form; however, reflection of digital provenance within descriptive information will remain the function of notes fields as long as appropriate solutions will be made.

For archiving digitized objects, VEPIS applies the METS standard, which is universally regarded as the most convenient XML schema re-

18 *UNIMARC Bibliographic*, 3rd edition (with updates), 2017, https://www.ifla.org/publications/unimarc-bibliographic--3rd-edition--updates-2012-and-updates-2016?og=33.

flecting the hierarchical structure of digital libraries, the related descriptive administrative metadata as well as names and locations of files comprising the digital object. It also allows integral sets of digital objects to be built, within which qualitative control is performed, corrupt images are returned for re-digitization and objects are linked to the OCRed full-text files or bibliographic objects. The METS format is also applied for exporting objects with their attributed metadata to the central database of VEPIS. The METS package used to export metadata comprises detailed object-related information and references to external objects (digital objects or sound files). The system applies the following sections of METS: "Identification data of the object", "Descriptive metadata", "Administrative metadata", "File section" and "Structural map".

Conclusions from investigating the Content Packaging Process

The analyses of some these models showed that granularity of contemporary models varies, e.g., the ontology assumed by OPM is minimal. It comprises only 3 classes: (*Artefact*, *Process* and *Agent*) and five associations between them: (*Used as an artifact*, *wasGeneratedBy a process*, *WasControledBy an agent*, *wasTriggedBy a process* and *WasDerivedFrom an artefact*).

According to Theodoridou et al. "provenance information recorded according to CRMdig can be mapped to an OPM-based view, but not the other way round", namely, "the ontology assumed by OPM does not explicitly model the concept *Event*; it influences the representation adequacy because events allow tracing the history of an object and enable the integration of several information that concern the object. Without the notation of event and of physical objects that are carriers (devices), it is impossible to adequately describe the conditions under which the process was done."[19] Given the fact that VEPIS is based on the CIDOC CRM ontology comprising 80 classes and 132 relations and possessing a rich structure of "intermediate" classes and relations enabling queries at var-

19 Maria Theodoridou et al., "Modeling and querying provenance by extending CIDOC CRM," *Distributed and Parallel Databases*, 27:2 (2010): 169-210, doi 10.1007/s10619-009-7059-2.

ious levels of abstraction and granularity; and that it is a generic model for recording the "what happened" on the human scale, we conclude that the process *Content Packaging* generates provenance-related added value within VEPIS.

The function *Adaptation of Provenance Metadata Standards* within VEPIS is realized by the Component *Maintenance of Digitized Objects*, which enables:

- preparation of METS packages consisting of descriptive structural metadata and administrative metadata and for exporting to the database of VEPIS;
- supplementing metadata of digitized objects provided by VEPIS data providers with technical data generated by the system and linking them with the object within the portal www.epaveldas.lt.

Market Making Process

Table 11 The model of provenance-related added value of VEPIS: *Market Making Process*

MARKET MAKING PROCESS			
Functions	**Dimension**	**Substantiating statements**	**Substantiating statements for VEPIS**
Management	*Publication*	**Making provenance available on the Web** *Groth et al., "Requirements for Provenance on the Web"*	Published on www.epaveldas.lt
	Access	**The capability to find** provenance for a particular artefact *Groth et al., "Requirements for Provenance on the Web"*	Capability to find provenance for a particular artefact via www.epaveldas.lt

MARKET MAKING PROCESS			
Functions	**Dimension**	**Substantiating statements**	**Substantiating statements for VEPIS**
Management	*Access*	**Provenance related query services:** CRM_{dig} allow querying of the most relevant facts and retrieving full descriptions encoded in this model by generic CIDOC CRM terms *CRM_{dig}, version 3.2.1*	Semantic querying implemented within VEPIS: BAVIC and metadata of digital objects in RDF form in line with the XML schema
		Querying Provenance information can be made accessible in some manner, and there must be mechanisms to find provenance for a given resource *W3C, Provenance Working Group* *W3C, Provenance RDF Named Graph*	Implemented within VEPIS by using CRM_{dig}
	Dissemination	Defining how provenance should be distributed and controlled *Groth et al., "Requirements for Provenance on the Web"*	Realized within VEPIS by the component *Publication and access.* The portal has all the accessibility features in line with the recommendations of the EU's *Web Content Accessibility Guidelines 2.0*
	Scale	Dealing with large amounts of provenance *Groth et al., "Requirements for Provenance on the Web"*	

The process *Market Making* refers to portal services, research tools and distribution. It was conceptualized on the basis of the *Requirements for Provenance on Web* formulated by the W3C Provenance Working Group. We established one function within this process, *Management*, which, according to the model, defines how provenance should be distributed. The function is realized by the following dimensions: *Publication, Access, Dissemination, Scale.*

The first dimension, *Publication*, according to the W3 Provenance Working Group, means that provenance information must be made available on the Web. Related issues include how provenance is exposed, discovered and distributed. The publisher of provenance information should be associated with reference records.

Publication of provenance information within VEPIS is realized by the component *Publication and Access*, which ensures that:

- the portal's interface has all the accessibility features according to the recommendations of the European Union's WAI (Web Accessibility Initiative) (*Web Content Accessibility Guidelines 2.0*);
- the portal's interface is intuitive, understandable and easy for users with an appropriate level of computer literacy (ECDL or higher);
- the interface is controlled by means of a mouse and keyboard or touchscreen;
- user interfaces satisfy the requirements of today's ergonomics as defined by the standard "LST EN ISO 9241-110:2006 Ergonomics of human-system interaction – Part 110: Dialogue principles (ISO 9241-110:2006)".

The second dimension is *Access* which, according to the *W3C Provenance Working Group*, is the capacity to find provenance information for a particular artefact. The authors of the *CRMdig Model for provenance metadata* claim that CRMdig ensures provenance-related query services retrieving full descriptions encoded in this model by generic CIDOC CRM terms. The *Provenance WG Wiki* states that there must be mechanisms to find provenance for a given resource to make provenance information accessible.[20]

The third dimension according to the *W3C Provenance Working Group* is *Dissemination,* which defines how provenance should be distributed and controlled.

The example in Figure 4 below explicitly shows provenance information: the book by Judita Vaičiūnaitė has been digitized, its archival copy is preserved within the computer network of the National Library of Lithuania and it is accessible to the user via a Web browser.

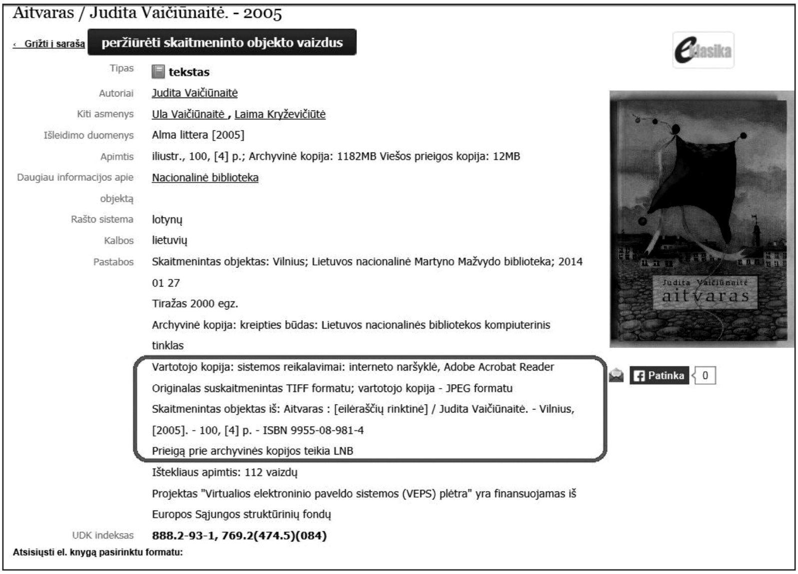


Figure 4 Provenance information available at www.epaveldas.lt

Within VEPIS the dimension *Dissemination* is realized by the component *Publication and Access,* which defines access policies. Figure 4 illustrates that provenance information within VEPIS is presented in the Lithuanian language and provides provenance information (presented within field 300 of UNIMARC) containing:

- system requirements for the user: an Internet browser. Adobe Ac-

20 W3C, *ProvenanceRDFNamedGraph*, https://www.w3.org/2011/prov/wiki/ProvenanceRDFNamedGraph.

robat Reader, the digital original (TIFF) and the format for the user (JPEG) as well as the mode of access to the archival copy (the computer network of the National Library of Lithuania);

- the digital copy from the source of the digital object: *Aitvaras : [eilėraščių rinktinė] / Judita Vaičiūnaitė. – Vilnius, [2005]. – 100, [4] p. – ISBN 9955-08-981-4*;
- the project under which the digitization was done (financed by the EU Structural Funds);
- accessibility data (the access to the archival copy is provided by the National Library.

The *Fourth* dimension, according to the *W3C Provenance Working Group,* is *Scale* and deals with the amount of provenance. The scale of provenance information is a major concern as the size of provenance records may far exceed the scale of the artefacts themselves. According to the W3C Requirements, "this poses significant data management and querying challenges, which databases and other systems are only beginning to address. Trade-offs must be made regarding the granularity of the provenance records kept and the actual amount of detail needed by users of provenance."[21]

When discussing the dimension *Scale* within the added value model of VEPIS, we must state that this problem has been only partially solved within VEPIS. The CIDOC CRMdig-based component *Information Presentation* within VEPIS allows for the implementation of the Common Thesaurus of Personal Names Geographical Names and Historical Chronology (BAVIC), functioning as an aid for formulating queries and organizing search results. These tools permit the receipt of information about the object from all the VEPIS partners independent of media types within VEPIS; however, they do not guarantee access to information about studies of the object that have been carried out, or their results across many published repositories. Taking into account the dimension *Scale of Provenance*, we could state that there is no interaction of the research and culture sectors in Lithuania. The Lituanica research institutions and infra-

21 Groth et al., "Requirements for Provenance on the Web".

structures are supervised by the Ministry of Education, whereas memory institutions are administered by the Ministry of Culture. For this reason, heritage objects (movable and immovable) are beyond the context of their research investigation: information about the digitization of heritage objects is in the domain of the Ministry of Culture and scholarly research data regarding such objects, in the domain of research institutions. Therefore, information systems of research data and those of cultural heritage are not related: there are no integrated search platforms within remote databases and no coordination of international partnerships. Such a divide is inconvenient for the user seeking to get needed comprehensive information about completed investigations and their results.

The process *Transport* refers to the technical issues of publishing provenance on the Web and of transferring data between geographically-distributed components of system. It is based on the WAN (wide area network) and LAN (local area network) infrastructure without specific elements for provenance data; therefore, it is not being analyzed in detail in this publication.

Delivery Support and Services

Table 12 The model of provenance related added value of VEPIS: *Delivery Support and Services*

DELIVERY SUPPORT AND SERVICES			
Functions	**Dimension**	**Substantiating statements**	**Substantiating statements for VEPIS**
Providing Access and Exchange the Data	*Protocol Compatibility*	**Z39.50:** Most popular synchronous protocol based on client/server architecture and MARC format structures *Dappert and Enders. Digital Preservation Metadata Standards*	Implemented within VEPIS: Z39.50, i.e. UNIMARC/A corresponds to the format UNIMARC/B on the level of content designators

DELIVERY SUPPORT AND SERVICES			
Functions	**Dimension**	**Substantiating statements**	**Substantiating statements for VEPIS**
Providing Access and Exchange the Data	*Protocol Compatibility*	**SRU (Search/Retrieve via URL)**: a standard synchronized search protocol for Internet search queries utilizing CQL (Common Query Language), which is a syntax for representing queries *Morgan, An Introduction to the Search/Retrieve URL Service (SRU)*	In VEPIS: implemented within Providing Access to the Network component
		OAI-PHM: a protocol for metadata harvesting, which enhances the description of resources on the Web *Sharma et al. Exploring OAI-PMH: Open Archives Initiative Protocol for Metadata Harvesting*[22]	Implemented within The Component of the OAI-PMH Harvester
		RDF, which is a low-barrier mechanism for repository interoperability *RDF Schema 1.1. W3C Recommendation 25 February 2014*	Implemented within the Component of RDF

The process *Delivery Support and Services* is based on the following two functions: *Providing Access and Exchanging Data* and *Application of Permanent Identifiers*. The first function is realized by protocols and standard models for data interchange on the Web used for Internet searching and

22 Shruti Sharma, J.P. Gupta and A.K. Sharma. "Exploring OAI-PMH: Open Archives Initiative Protocol For Metadata Harvesting," International Journal of Advanced Research in Computer Science, 1:2 (2010), http://www.ijarcs.info/index.php/Ijarcs/issue/view/2.

for data exchange (Z39, SRU, OAI-PHM and RDF, which are low-barrier mechanisms for repository interoperability). The function *Providing Access and Exchanging Data* of the process *Delivery Support and Services* within VEPIS is realized by the following components:

1) *Providing Access to the Network*, which enables:

- automated transfer of digital copies indicated in the metadata into the VEPIS database by using the OAI-PMH v2.0 protocol;
- submitting the received data to the VEPIS component *Data Submission*;
- providing a graphic interface to the management of repository functions;
- delivering metadata of cultural heritage objects and digitized content to the European virtual space;
- conversion of preserved metadata into formats supported by the OAI-PMH repository (oai_telap, oai_dc, oai_ese).

2) *OAI-PMH Harvester*, which enables:

- managing integration into VEPIS of the content from other OAI-compatible systems for preserving digital content;
- automatic loading of digital object metadata into the VEPIS database;
- actions of the OAI-PMH harvester (defined by the OAI-PMH protocol): identifying submitted metadata formats, records and descriptions of records;
- submitting records by using OAI-PMH.

3) *RDF*, which enables:

- presentation of descriptive metadata of BAVIC and digitized objects in the RDF form (Resource Description Framework, http://www.w3.org/RDF) and CIDOC CRM-compatible XML schema)
- presentation of elements of descriptive metadata of diverse institutions, as well as BAVIC records and semantic links between their elements, in the RDF form in line with principles of the Semantic Web (http://www.w3.org/2001/sw/).

Table 13 The model of provenance related added value of VEPIS: *Delivery Support and Services* (cont.)

DELIVERY SUPPORT AND SERVICES			
Functions	**Dimension**	**Substantiating statements**	**Substantiating statements for VEPIS**
Application of Persistent Identifiers	URN	Standard, permanent and unique identifier for digital resources on the Internet	Not implemented
	DOI	Unique identifier of digital objects	Implemented
	URL (PURL)	Used temporarily until URN is implemented	Implemented: PURL

The second function, *Application of Persistent Identifiers*, is implemented by introducing the following three dimensions: URN, DOI and PURL. URN (Universal Resource Name) is a standard, persistent and unique identifier for digital resources on the Web. URNs and URLs are forms of Uniform Resource Identifiers (URIs). URNs use ISBN and ISSN as NIDs. VEPIS has URNs based on the National Bibliography Numbers (NRNs) with NBNs as NID.

DOI (Digital Object Identifier) is a system of unique identifiers based on the Handle System and allowing the allocation of a unique digital identifier to commercial digital publications. Since the DOI structure is similar to those operating within ISBN (publisher, content, etc.), it is used within metadata in VEPIS.

Within VEPIS, URI is realized as the permanent URL (PURL). VEPIS, which operates in line with the METS standard, contains the description of provenance in line with CRMdig expressed in the RDF/XML form.

All functions from the process *Delivery Support and Services* are used in the software of the process *Interface and System*.

Interface and System

Table 14 The model of provenance-related added value of VEPIS: *Interface and System*

INTERFACE AND SYSTEMS			
Functions	**Dimension**	**Substantiating statements**	**Substantiating statements for VEPIS**
Access via the Public Online Catalogue (OPAC)	*Access*	How to enable the end user to consume provenance	Application for Web pages; access at www.epveldas.lt
Access and Automatic Data Import via OAI-PHM	*Access*	Automatic data import via the OAI-PHM protocol	Application for access and automatic data import via OAI-PHM

The process *Interface and Systems* refers to Internet services for user data. It is based on the following two functions: access via the public online catalogue and application for access and automatic data import via the OAI-PHM protocol.

Within VEPIS, open technologies are applied for consuming provenance. User interfaces are realized on the basis of Web-based principles via a standard Web. The search of the provenance information is based on CRMdig allowing to:

- identify the creator of the object,
- identify earlier versions of the item,
- identify the events that changed the custody of the item,
- identify the master version of the object,
- identify the scanner/resolution of the digital object.

The portal's application has all the accessibility features in line with the recommendations of the European Union's WAI (Web Accessibility Initiative) (Web Content Accessibility Guidelines 2.0).

The portal's application is intuitive, understandable and easy to use for users with an appropriate level of computer literacy (ECDL or higher).

Interface and System Process

Table 15 The model of provenance-related added value of VEPIS: *Interface and System Process*

INTERFACE AND SYSTEMS PROCESS			
Functions	**Dimension**	**Substantiating statements**	**Substantiating statements for VEPIS**
Use	*Understanding*	How to enable the end user to consume provenance *Groth et al., "Requirements for Provenance on the Web"*	Queries regarding provenance in VEPIS are based on the paths of CRM_{dig} ClassName – PropertyName – TargetClassName *Specification of VEPIS*
	Interoperability	Integrating provenance produced by multiple systems *Groth et al., "Requirements for Provenance on the Web"*	VEPIS integrates provenance information produced by 9 partners, Europeana and TEL

The process *Interface and Systems* refers to the functionality of the portal's application. It is based on one function, *Use.* According to the W3C Provenance Working Group, "provenance records may be expected to serve a variety of purposes."[23] The W3C Provenance Working Group identified seven dimensions of the *Use* category, which we will use within our model: *Understandability*, *Interoperability*, *Comparison*, *Accountability*, *Trust*, *Imperfection* and *Debugging.*

The first dimension of the function *Use* is *Understandability,* which

23 Groth et al., "Requirements for Provenance on the Web".

means how to make provenance information understandable to the consumer and how appropriate presentation and visualization of provenance information has to be created. This dimension is explicitly related to *Publication* and *Dissemination,* both dimensions of the *Market making* process; they, as it was mentioned before, are realized within VEPIS by the component *Publication and Access*, which guarantees that:

- the portal's application has all the accessibility features according to the recommendations of the European Union's WAI (Web Accessibility Initiative) *(Web Content Accessibility Guidelines 2.0)*;
- the portal's application is intuitive, understandable and easy for users with an appropriate level of computer literacy (ECDL or higher);
- the interface of the application is controlled with the help of a mouse and keyboard or touchscreen;
- user interfaces of the application satisfy the requirements of today's ergonomics as defined by the standard "LST EN ISO 9241-110:2006 Ergonomics of human-system interaction – Part 110: Dialogue principles (ISO 9241-110:2006)".

The second function is *Interoperability,* which, according to the W3C Provenance Working Group, means that provenance information may be obtained from heterogeneous systems and various representations. This dimension is interoperable with the above-discussed dimension *Scale* of the process *Market making*. As regards the *Intereoperability* dimension, we should state that this issue has been only partially solved within VEPIS as it was mentioned above. We could refer to interoperability only in the sense that VEPIS aggregates data from diverse systems and all descriptive information is converted into UNIMARC including provenance data (however, it is not interoperable as regards search).

Another important dimension of the function is *Comparison of Artefacts Based on Their Origins*. According to the W3 Provenance Working Group, two artefacts may seem very different while their provenance may indicate significant commonalities. Conversely, two artefacts may seem alike, while their provenance may reveal significant differences. VEPIS integrates various abundant data about objects from libraries, museums and archives which may be of diverse origin, but the data about them may be the same.

A very important dimension of the function *Use* is *Trust*. According to the W3C Provenance Working Group, *Trust* is often based on attribution information; it checks reputation of the entities involved in provenance. Another dimension of *Use* connected with the quality of the information is *Imperfection*, which, according to the W3C Provenance Working group, means "using provenance information may imply handling imperfections. Provenance information may be incomplete in that some information may be missing or incorrect, if there are errors. Provenance information may also be provided with some uncertainty or be of a probabilistic nature".[24]

And the last dimension within *Use* is *Debugging*. According to the W3C Provenance Working Group, it means using provenance to detect failures or bugs. This Group also states that without a record of provenance, it would be impossible to determine whether such a "bug" in the processes had indeed occurred.

Table 16 The model of provenance related added value of VEPIS: *Interface and System Process* (cont.)

INTERFACE AND SYSTEMS PROCESS			
Functions	**Dimension**	**Substantiating statements**	**Substantiating statements for VEPIS**
Use	*Comparison*	Comparison of artefacts based on their origins. Two artefacts may be widely different while their provenance may indicate significant commonalities *Groth et al., "Requirements for Provenance on the Web"*	Not implemented within VEPIS
	Accountability	Using provenance to assign credit blame *Groth et al., "Requirements for Provenance on the Web"*	Not implemented within VEPIS

24 Ibid., 53.

INTERFACE AND SYSTEMS PROCESS			
Functions	**Dimension**	**Substantiating statements**	**Substantiating statements for VEPIS**
Use	*Accountability*	"information accountability means the use of information should be transparent so it is possible to determine whether a particular use is appropriate under a given set of rules, and that the system enables individuals and institutions to be held accountable for misuse." *Weitzner et al., "Information accountability"*[25]	
	Trust	Using provenance to assign credit blame *Groth et al., "Requirements for Provenance on the Web"*	Specific components implemented within VEPIS
	Imperfection	Dealing with imperfections in provenance records *Groth et al., "Requirements for Provenance on the Web"*	Specific components implemented within VEPIS
	Debugging	Using provenance to detect failures or bugs *Groth et al., "Requirements for Provenance on the Web"*	

There are several components for validating the authenticity of a preserved data object within VEPIS: *Component of Metadata Verification*, which ensures control of metadata loaded into VEPIS in line with the requirements for quality, comprehensiveness and excellence of data, and *Component of Logging Events,* which tracks the import of digitized objects

25 Daniel J. Weitzner et al., "Information accountability," *Communications of the ACM*, 51:6 (2008): 81-87, doi: http://doi.acm.org/10.1145/ 1349026.1349043.

from VEPIS data providers and systems supporting the OAI-PMH protocol and verifies whether information about digitized objects satisfy/do not satisfy the requirements for quality, comprehensiveness and excellence of data. Therefore, we may conclude that within VEPIS, provenance documents the history of creation, ownership, accesses and changes that have occurred over time for a particular data object.

Conclusions

Qualitative analysis of scientific literature as well as the specification of VEPIS and its services allowed for the establishment of a model for provenance-related added value in VEPIS. Drawing on this model, we could conclude that VEPIS, which is based on OAIS, CRMdig and RDF, supports the following functionality:

1. Providing metadata and context of the digitization process referring to the master version and derivation chain. All this creates trustworthy provenance information and provides access to it by using open protocols;
2. Provenance information within VEPIS allows referring to the versions of objects as they evolve, are modified or accessed over the time. In particular it provides for a representation of how one version (or parts thereof) was derived from another version due to the components of VEPIS modelled in line with the OAIS reference model. The identity of the object is strongly related to PDI (Context, Provenance, Fixity, and Reference Information as defined in OAIS) and helps users to understand the environment of the resource. PDI within the Archival Information Package provides events that occur during the lifecycle of digital objects (license holder, registration and copyright). It guarantees the authenticity of the object. VEPIS as a CRMdig-based system also provides the derivation chain ("ByWhom"), which documents the history of the content information and refers to its origin or source, any

changes that may have taken place since it was originated and who has had custody of it since it was originated.

3. There is a standard way within VEPIS to find provenance information for a given resource: a standard WEB application within VEPIS based on the OPAC.
4. VEPIS uses a standard way to present several basic provenance entities: (1) PURL, for referring to an object (resource), (2) a person/entity to which the object is attributed (3) a processing step carried out by a person/entity in creating a new object.
5. Queries within VEPIS regarding provenance are based on paths of CRMdig. We can identify the following query requirements: the creator of the object, earlier versions of the item and the events that changed the custody of the item as well as allowing users to find out how any result was derived (what input influenced the result), identifies the master version of the object and the scanner/resolution of the digital object.
6. We must acknowledge some imperfections of VEPIS, the most fundamental of which is the fact that there is no standard way to obtain provenance regarding the object from heterogeneous systems and different representations. Taking into account that information systems of research data and those of cultural heritage are not related, there are no integrated search platforms within remote databases and no coordination of international partnerships. For this reason, the information from provenance records created by different systems is not integrated either. Therefore, we could conclude that in the future, when the research and cultural domains do become interoperable, the provenance of a given artefact will acquire the potential to be specified by multiple systems and be integrated.

References

Buneman, Peter, Sanjeev Khanna and Wang-Chiew Tan. *Why and Were: A Characterization of Data Provenance,* https://repository.upenn.edu/cgi/viewcontent.cgi?article=1209&context=cis_papers.

CRMdig: Model for provenance metadata. Version 3.2.1. April, 2016, http://www.ics.forth.gr/isl/CRMext/CRMdig/docs/CRMdig_v3.2.1.pdf.

Dappert, Angela and Markus Enders. "Digital Preservation Metadata Standards," *ISO: Information Standards Quarterly*, 22:2 (2010): 5-13, http://www.niso.org/apps/group_public/download.php/4299/isqv22no2.pdf.

Doerr, Martin and Maria Theodoridou. "*CRMdig*: A Generic Digital Provenance Model for Scientific Observation," in *3rd USENIX Workshop on the Theory and Practice of Provenance (TaPP '11*),

June 20–21, 2011, Heraklion, Crete, Greece. Available at:https://www.usenix.org/legacy/event/tapp11/tech/final_files/Doerr.pdf

Groth, Paul, Yolanda Gil, James Cheney and Simon Miles. "Requirements for Provenance on the Web," *The International Journal of Digital Curation*, 7:1 (2012): 39-56, doi: 10.2218/ijdc. V7il.213http://www.ijdc.net/index.php/ijdc/article/viewFile/203/272.

Groth, Paul et al. *An Architecture for Provenance Systems*, https://www.researchgate.net/publication/39994555_An_Architecture_for_Provenance_Systems.

ISO 14721:2012 Space data and information transfer systems – Open archival information system (OAIS) – Reference Model, https://www.iso.org/standard/57284.html.

Moreau, Luc. "The Foundations for Provenance on the Web Foundations and Trends," *Web Science*, 2:2-3 (2010): 99-241, doi: 10.1561/1800000010, https://eprints.soton.ac.uk/271691/1/survey.pdf.

Moreau, Luc et al. "The Open Provenance Model Core Specification (v1.1)," *Future Generation Computer Systems*, 27 (2011): 743-756, https://pdfs.semanticscholar.org/4181/c0d8284d8737f61232365747690

297e31c82.pdf.

Morgan, Eric Lease. "An Introduction to the Search/Retrieve URL Service (SRU)," *ARIADNE Web Magazine for Information Profesionals*, http://www.ariadne.ac.uk/issue40/morgan/?ref=Fuckonly.com.

RDF Schema 1.1. W3C Recommendation 25 February 2014, https://www.w3.org/TR/rdf-schema/.

Reader's Digest Oxford Complete Wordfinder. Pleasantville, N.Y.: Reader's Digest Association, 1993.

Sharma, Shruti, J.P. Gupta and A.K. Sharma. "Exploring OAI-PMH: Open Archives Initiative Protocol For Metadata Harvesting," *International Journal of Advanced Research in Computer Science*, 1:2 (2010), http://www.ijarcs.info/index.php/Ijarcs/issue/view/2.

Strategic Developments for the European Publishing Industry Towards the Year 2000. Created by European Commission, DG XIII, Andersen Consulting, 1996, http://www.echo.lu/elpub2/en/exengl.pdf.

Theodoridou, Maria et al. "Modeling and querying provenance by extending CIDOC CRM," *Distributed and Parallel Databases*, 27:2 (2010): 169-210, doi 10.1007/s10619-009-7059-2.

UNIMARC Bibliographic, 3rd edition (with updates), 2017, https://www.ifla.org/publications/unimarc-bibliographic--3rd-edition--updates-2012-and-updates-2016?og=33.

Weitzner, Daniel J. et al. "Information accountability," *Communications of the ACM*, 51:6 (2008): 81-87, doi: http://doi.acm.org/10.1145/1349026.1349043.

W3C Provenance Incubator Group, Semantic Web Activity World Wide Web Consortium. *Overview of Provenance on the Web*, https://www.w3.org/2005/Incubator/prov/wiki/images/0/02/Provenance-XG-Overview.pdf.

W3C. *ProvenanceRDFNamedGraph*, https://www.w3.org/2011/prov/wiki/ProvenanceRDFNamedGraph.

W3C. *Provenance Working Group*, https://www.w3.org/2011/prov/wiki/Main_Page.

Related literature

Buneman, Peter and Susan B. Davidson. *Data provenance: the foundation of data quality*. September 1, 2010, http://www.sei.cmu.edu/measurement/research/upload/Davidson.pdf.

Gordon Dunsire. "The Web of data for archival materials," in *Records, archives and memory: Selected papers from the conference and school on records, archives and memory studies, University of Zadar*, edited by Mirna Willer, Anne J. Gilliland and Marijana Tomić, 293-308. Zadar: Sveučilište u Zadru, 2015.

Dunsire, Gordon and Mirna Willer. "Standard library metadata models and structures for Semantic Web," *Library Hi Tech News*, 28:3 (2011): 1-12.

Brian Lavoie. *The Open Archival Information System (OAIS) Reference Model: Introductory Guide*. 2nd edition, DPC Technology Watch Report 14-02 October 2014, doi: http://dx.doi.org/10.7207/twr14-02.

McDonough, Jerome P. "METS: standardized encoding for digital library objects," *International Journal of Digital Libraries*, 6:2 (2006): 148-158, https://link.springer.com/article/10.1007/s00799-005-0132-1.

PROV-DM: The PROV Data Model. W3C Recommendation of 30 April 2013, https://www.w3.org/TR/2013/REC-prov-dm-20130430/.

PROVENIJENCIJA U KONTEKSTU KULTURNE BAŠTINE DIGITALNIH SADRŽAJA
LITAVSKI PRISTUP

Ključne riječi:
provenijencija, digitalno okruženje, kvaliteta podataka, pouzdanost informacija, Litavski informacijski sustav virtualne elektroničke baštine (VEPIS)

Sažetak

Glavni je cilj ovog članka naglasiti pitanja provenijencije u digitalnom okruženju kao temeljnog koncepta kvalitete podataka. Člankom se želi teoretski potkrijepiti pojam da je provenijencija informacija ključna za određivanje njihove vjerodostojnosti. Primjenom koncepta dodane vrijednosti 2-3-6 EU za elektroničko izdavaštvo i kvalitativne analize sadržaja istraživačke literature, koncipirali smo sljedeće procese provenijencije: Kreiranje sadržaja, Pakiranje sadržaja, Formiranje tržišta, Podrška i usluge isporuke te Sučelje i sustavi. Ovakav pristup omogućio nam je i prepoznavanje funkcija provenijencije, kao i njihovih dimenzija te određivanje dodane vrijednosti povezane s provenijencijom u Litavskom informacijskom sustavu virtualne elektroničke baštine (Lithuania's Information System of the Virtual Electronic Heritage, VEPIS).

PROVENANCE IN THE ALM COMMUNITIES *THREE COMPETING CONCEPTS?*

Marijana Tomić
Department of Information Sciences, University of Zadar, Croatia

Tinka Katić
National and University Library in Zagreb, Croatia

Keywords:
provenance, cataloguing rules, conceptual models, IFLA Library Reference Model (IFLA LRM), CIDOC-CRM, ICA Records in Contexts (RiC)

Abstract

The research discussed in this paper addressed the question of how to record provenance information linked to resources held in archives, libraries and museums (ALM). It sought to inform and support the design of national cataloguing rules for description and access being carried out through the Croatian project on the Production, Publishing and Maintenance of National Cataloguing Rules, 2014-2018. Provenance has been generally defined as "the history of ownership of a valued object of work of art or literature", and although it is present as a concept in all three ALM communities, it is conceptualized differently by each, and therefore expressed differently as their descriptive practices respond to their respective missions, types of material they hold, and user needs. This is shown and confirmed in the brief overview of central ideas about the concepts of provenance in the first part of this paper. The second part constitutes the alignment of entities and relationships relevant to expressing provenance information contained in the conceptual models of IFLA LRM, RiC and CIDOC-CRM. Results of the theoretical overview as well as of the anal-

ysis of alignments of the models provide evidence that the concepts of provenance in ALM communities, despite their specificities, can be harmonised and integrated within a particular implementation of the different communities' models in line with the Project's goal.

Introduction

The five-year project, *Production, Publishing and Maintenance of National Cataloguing Rules, 2014-2018* was initiated in Croatia in 2013.[1] The goal of the project is to produce national cataloguing rules for the description and identification of and access to resources in libraries, archives and museums (ALM). Two main requirements result from this: (1) adjusting the catalogue to new linked open data (LOD) technologies that offer possibilities of functioning in other technological environments, and (2) designing common rules that nevertheless fully respect the archives, library, and museum communities' requirements for the description of their resources. The rules imply that the object of description is unambiguously identified regardless of when, where and who describes it, while the specific context which mirrors a particular community, institution or its users is provided.[2] To ensure that the prescribed rules will meet these requirements, the design of the national cataloguing rules has been based around the respective ALM professional standards and conceptual models. Within the project, these standards and models have been aligned in order to determine principles of description, identify entities, their attributes and relationships between entities, and to define the form of access points that are common to all three communities, as well as to acknowledge and find solutions to describing specificities within each community.

The question of recording provenance information linked to ALM resources is the focus of this paper's research in order to inform and support the design of cataloguing rules in this respect. Provenance has been generally defined as "the history of ownership of a valued object of work

1 "Nacionalni pravilnik za katalogizaciju," http://npk.nsk.hr/. The project is supported by the Ministry of Culture of the Republic of Croatia. The members of the project are the National and University Library in Zagreb, the Croatian Library Association, the Croatian State Archives, the Museum Documentation Center, the Croatian Natural History Museum, the Museum of Arts and Crafts, and three academic institutions – the University of Zagreb, Faculty of Humanities and Social Sciences, Department of Information and Communication Sciences, the University of Zadar, Department of Information Sciences, and the Josip Juraj Strossmayer University of Osijek, Faculty of Humanities and Social Sciences, Department of Information Sciences. The homepage for the rules (draft) is http://nkp.nsk.hr/.

2 Ana Vukadin, "Pravilnik za opis i pristup gradivu u arhivima, knjižnicama i muzejima: načela i struktura," *Arhivi, knjižnice, muzeji: mogućnosti suradnje u okruženju globalne informacijske infrastrukture*, 20 (2017): 112.

of art or literature",[3] and although it is present as a concept in all three communities, each conceptualizes it differently, and therefore expresses it differently in their descriptions, which respond to their missions, types of material they manage, and their users' needs. This paper, therefore, will first review the concept of provenance in ALM communities, and then address the alignment of entities and relationships relevant to expressing provenance information within the three conceptual models – IFLA LRM, ICA RiC and CIDOC-CRM in order to draw a conclusion on how to integrate provenance information into the new cataloguing rules.

The concept of provenance: brief overview of central ideas

Archival approach

In archival science, the concept of provenance was first articulated in the 19th century, while in 1910 it was internationally adopted as the central principle around which archival fonds and collections are arranged and described. It refers to the human or juridical authority responsible for the creation of the fond and has two facets that operate primarily at the level of the materials themselves: *respect des fonds* and *original order*.[4] The International Council on Archives' (ICA) standard ISAD(G) defines provenance as "the relationship between records and the organizations or individuals that created, accumulated and/or maintained and used them in the conduct of personal or corporate activity" (ISAD(G)).[5] This definition was expanded in relation to its function in ISDF: "provenance is also the relationship between records and the functions which generated the need of the records".[6] Besides its use as an organizing principle, prov-

3 "Provenance." Merriam-Webster.com, Merriam-Webster, www.merriam-webster.com/dictionary/provenance.

4 Congrès de Bruxelles 1910. "Actes" (Bruxelles, 1912).

5 *ISAD(G): General International Standard Archival Description*. Second edition (Ottawa, 2000), 11, https://www.ica.org/sites/default/files/CBPS_2000_Guidelines_ISAD%28G%29_Second-edition_EN.pdf.

6 *ISDF: International Standard for Describing Functions* (Paris: International Council on Archives, 2007), 10, https://www.ica.org/sites/default/files/CBPS_2007_Guidelines_ISDF_First-edition_EN.pdf.

enance information is used in information retrieval, and to establish the archival bond, maintain the documentary context of the contents of the archival fond and to support the presumption of its authenticity.

In order to describe the evolving ideas about the principle of provenance, Douglas introduces the concepts of provenance as a physical and intellectual construct, and sociohistorical context.[7] Provenance as sociohistorical context became virtually indistinguishable from the notion of context itself – provenance is viewed as the umbrella under which an ever-expanding list of contextual factors are gathered. Nesmith also considers the importance of recognizing the ways in which "societal and intellectual contexts" contribute to the shaping of a body of records. He advocates expanding the principle of provenance as a characteristic of postmodern trends in the study of history and culture and introduces the term *societal provenance* by which he reminds archivists that records are made and archived in "social settings for social purposes". What he means by this phrase is that society necessarily influences us and affects how and why we record information, and for those reasons, when analysing the provenance of a record, we should include the analysis of the society in which a record was created.[8] Societal provenance means to recognize that records' creators are not isolated, but are members of a community that influences them. Envisioning social context, archivists suggest that full understanding of provenance must include an analysis of the ways in which records are transmitted and used over their lifetime.

Millar argues that the principle of provenance should be expanded to include creator history ("the story of who created, accumulated, and used the records over time"), records history ("the story of the physical management and movement of the records over time") and custodial history ("the explanation of the transfer of ownership or custody of the records from the creator or custodial to the archival institution and the subsequent care of those records"). A description of those histories should include information

7 Jennifer Douglas, "Origins: Evolving Ideas about the Principle of Provenance," *Currents of archival thinking* (Santa Barbara, etc.: Libraries Unlimited, 2010), 24.

8 Tom Nesmith. "The Concept of Societal Provenance and Records of Nineteenth-century Aboriginal-European Relations in Western Canada: Implications for Archival Theory and Practice," *Archival Science* 6, nos. 3-4(2006): 352.

about how records were used, by whom and when, as well as a description of any enhancement or alternation of the records as a result.[9]

Assignment of provenance is also considered by Gilliland "as a way to acknowledge, give voice to, and describe the roles of those who were involved with the creation of the record and its metadata as contributors, subjects, or legatees rather than as the official authors". Gilliland understands provenance to be fundamentally about power and those who are empowered to claim, and warns that "assigning a collector as provenance can submerge the community from which materials originated", meaning that "[t]hose who were co-present, or without whom a document could not exist but who did not have power or never would have power can never be empowered, given authority, recognised, acknowledged, or compensated through the attribution of provenance – e.g., slaves or victims".[10]

According to Popovici, however, provenance is not so clear in real life as it has been presented at the theoretical level, and original order raises difficulties in interpretation and implementation. He indicates that there are many types of provenance and raises the question of which one to respect as "sometimes it may be hard to establish which would be the 'true' provenance and original state".[11] Linked to this is the question of subjectivism in identifying provenance, suggesting there is not only a singular provenance, but also a network of relations, some obscuring others and thus affecting exactly what lies at the theoretical core of the principle of provenance – the authenticity and reliability of records.

Hurley also states that "provenance cannot be adequately described if limited to showing agents of creation", and that the information on provenance in general adds value to the description.[12] As records can have multiple creators successively, he accepts the concept of multi-layered

9 Laura Millar, "The Death of the Fonds and the Resurrection of Provenance: Archival Context in Space and Time," *Archivaria*, 53 (2002): 12-13.

10 Anne J. Gilliland, "Contemplating Co-creator Rights in Archival Description," *Knowledge Organization,* 39, no. 5 (2012): 340-346.

11 Bogdan Florin Popovici, "Records in Context: Towards a New Level in Archival Description?" *Zbornik mednarodne konference Radenci 2016 Tehnični in vsebinski problemi klasičnega in elektronskega arhiviranja*, ur. Nina Gostenčnik (Maribor: Pokrajinski arhiv Maribor, 2016), 17.

12 Chris Hurley, "Problems with Provenance," *Archives & Manuscripts,* (19 May 1995), nos. 3-4, https://www.descriptionguy.com/images/WEBSITE/problems-with-provenance.pdf.

provenance.[13] Arguing about multi-layered provenance, Hurley indicates that the distinction between personal and official records should be annihilated as "all records have both a corporate and a personal provenance" and when dealing only with the question 'which single person or corporation created these records?', archivists must ignore important aspects of provenance. Hurley concludes that archivists have an inadequate idea about provenance because "they cannot articulate the variety of different roles or relationships a corporation or person may have in relation to the records-creation process, and they are bound by their theory to identify one only and ignore the rest".[14] Hurley indicates that a variety of agents and roles can be found in archival contextual descriptions, where that information can be formatted into access points, so that the roles of each individual can be inferred. He stresses, however, that it is "more in tune with archivists' theoretical position" to deny, for example, the relation between the person and the corporate body declared as the creator of a record[15] for one reason only: "to say that this information (however important in itself) must not be confused with provenance data which has the single explicit purpose of articulating who was responsible for making the records"![16] Hurley concludes that "simultaneous multiple provenance must, at least where natural persons are involved, be conceded".[17]

Library approach

In librarianship, provenance is connected with scholarly research such as historical bibliography, the history of reading and using books, and the history of the book market by providing evidence of the influence a particular book or book collection had in social, intellectual and literary history/context. Research into provenance in libraries has also focused on the methods and possibilities of tracing or reconstructing previous owner-

13 Ibid., 4.
14 Ibid., 7.
15 Hurley describes the example of Arthur Wellesley, who served as British Prime Minister.
16 Ibid., 8.
17 Ibid., 9.

ship,[18] and the possibilities and modes of recording provenance information in bibliographic records.[19] Provenance is mostly recorded for old and rare books, as well as for manuscripts, early prints, photographs and other forms of so called 'special collections'. It can be assigned at the collection[20] or item level and primarily describes the previous owner(s), collector(s) or chain-of-custody of the item. The element/access point is recommended, but not mandatory. Therefore, provenance research in librarianship is exclusively connected with ownership of items, and the study of provenance is assumed to be "of relevance to anyone who is interested in book ownership generally, those who are studying it as a branch of historical bibliography, those who are pursuing the history of reading and the use of books, and those who wish to trace the circulation of particular texts by identifying the people who once owned them".[21]

Pearson notes in 1994 that the study of provenance, particularly studies of private libraries and book ownership, had gained much ground in recent years.[22] Analysing the size and content of entries for *Provenance* in "ABC for Book Collectors", a *vade mecum* of bibliographical terms, in different editions, Pearson concludes that we "have moved from thinking

18 See, e.g., Kristian Jensen, "Old Books in New Libraries: Democratisation of Access or a Digital Divide," *Imprints and Owners: Recording the Cultural Geography of Europe*, ed. by David J. Shaw (London: Consortium of European Research Libraries, 2007), 67-82; David Shaw, "Who Owned this Book: Provenance Studies in the European Dimension," *Summer School in the Study of Old Books*, ed. by Mirna Willer and Marijana Tomić (Zadar: Sveučilište u Zadru, 2010), 157-171; Mittler, Elmar. "The Bibliotheca Palatina: A Scattered Library Reconstructed," *Virtual Visits to Lost Libraries,* ed. by Ivan Boserup and David J. Shaw (London: Consortium of European Research Libraries, 2011), 1-20; Renhart, Erich. "Tracing our Written Heritage: Challenges, Perspectives, Questions," S*ummer School in the Study of Old Books*, 107-118; Renhart, Erich. "Information on Vanished Libraries: Materials Buried in Books and Archives," *Records, Archives and Memory: Selected Papers,* ed. by Mirna Willer, Anne J. Gilliland and Marijana Tomić (Zadar: Sveučilište u Zadru, 2015), 183-192; Lakuš, Jelena. "Thinking like a Book Historian: Searching for the Evidence of Book Ownership," *Records, Archives and Memory*193-221;

19 See, e.g., Tinka Katić, "Određivanje jedinstvene odrednice za imena osoba koje su, osim autora, sudjelovale u nastanku knjige i povijesti primjerka," *Normizacija osobnih imena u knjižničarstvu i leksikografiji* (Zagreb: Hrvatsko bibliotekarsko društvo, 1996), 157-172; Pearson, David. "Provenance and Rare Book Cataloguing: Its Importance and its Challenges," *Books and their Owners,* 1-9; Wagner, Betina. "The Incunable Collection of the Bayerische Staatsbibliothek München and its Provenances," *Books and their Owners,* 55-79; Tomić, Marijana. "Provenance Information in Croatian Catalogues of Heritage Collections," *Summer School in the Study of Old Books,* 173-199.

20 For the collection level description see Tinka Katić, "A Conceptual Model for Description of Written Heritage Collections, " *Summer School in the Study of Historical Manuscripts: Proceedings,* ed. by Mirna Willer and Marijana Tomić (Zadar: Sveučilište u Zadru, 2013), 371-391.

21 David Pearson, *Provenance Research in Book History: A Handbook* (London: The British Library, Oak Knoll Press, 1994), 1.

22 David Pearson, "Provenance and Rare Book Cataloguing: Its Importance and its Challenges," 1.

that provenance is only interesting when it relates to someone famous, to realising that all kinds of evidence of the ways in which books were owned, read and circulated in earlier times has something potentially useful to tell us about the impact of books in society".[23] Provenance research in book history is usually directed to and results in reconstruction of private libraries, which is further used to compare them with the collections of their time and also to build up wider pictures of book ownership over the centuries. One can conclude which books were popular or prohibited, which were read and which not, which books shaped the mind of popular authors, poets, politicians or noblemen, which were read by women, and much more. Each cataloguer of old and rare books tends to uncover the traces of former owners of the books, and especially seeks to trace the books belonging to some noble person or family, with the goal of reconstructing their private library collection as a tool for elucidating the cultural and social circumstances in which the collector lived. In other words, the selection of material contained in a private library illustrates the richness of spirit of the previous owner(s), as well as the time in which the library was founded.[24]

Research on provenance is introduced as one of the methodologies used in the history of books, and the body of works which have used evidence of book ownership has grown in recent years, including monographs and articles as well as commentaries on inventories of family libraries. Researchers derive provenance evidence, most systematically listed in Pearson's handbook *Provenance Research in Book History*, from inscriptions, mottoes, bookplates, book labels, book stamps, sale catalogues and catalogues and lists of private libraries and other traces of ownership. Curwen and Jonsson listed some additional evidence of provenance, but with an emphasis on recording those traces in catalogue records.[25] With growing interest in recording provenance, catalogue records were extended with access points

23 Ibid.
24 Tinka Katić, *Stara knjiga: bibliografska organizacija informacija* (Zagreb: Hrvatsko knjižničarsko društvo, 2007), 34.
25 Tony Curwen and Gunilla Jonsson. "Provenance and the Itinerary of the Book: Recording Provenance Data in On-line Catalogues," *Imprints and Owners: Recording the Cultural Geography of Europe,* ed. by David J. Shaw (London: Consortium of European Research Libraries, 2007), 32.

for previous owners, and with note fields dedicated to book history.

Despite those catalogue extensions, whose purpose is to record provenance and enhance provenance research, Burrows stresses the lack of a single agreed-upon best practice for recording and presenting provenance data in the library community.[26] While working on research and recording the provenance of manuscripts of the Phillipps Collection, focusing "on the provenance histories of medieval and early modern manuscripts: who created them, who owned them, who bought and sold them, where and when these events took place, and where the manuscripts are now",[27] Burrows compiled recommendations intended for cultural heritage institutions on making provenance data more usable and relevant to researchers and other interested people. In those recommendations he concludes that provenance is important to researchers as well as to institutions and as such should be made publicly available. He points out that recording and presenting provenance data is done in different manners not only between different sectors, e.g., between libraries and museums, but also within the same sector.

In his recommendations, Burrows concludes that provenance is properly modelled and expressed in the CIDOC-CRM ontology, but when talking about museum standards, he singles out the Carnegie Museum of Art provenance standard, which is based on the *AAM Guide to Provenance Research* and "offers a good middle-ground for structuring provenance data for art works".[28]

Although Burrows' research on recording and analysing provenance started from his own project, in his recommendations he made more generally valuable statements on provenance, among which it is worth singling out the need to "[m]ake provenance data available for expert and harvest" by which he presupposes the further usage of provenance data in catalogue records by researchers, who need those data to be structured and available for download, harvesting, visualizing and generally ingesting in various soft-

26 Toby Burrows, "Provenance Data: Recommendations for Cultural Heritage Institutions," *Reconstructing the Phillipps Collections: Toby Burrows: news from an EU project aimed at reconstructing the manuscript collection of Sir Thomas Phillipps*, https://tobyburrows.wordpress.com/2016/07/29/provenance-data-recommendations-for-cultural-heritage-institutions/.

27 Ibid.

28 Ibid.

ware tools for visualizations, statistics, etc. Maybe the most important point to which he draws our attention in these respects is his last recommendation in which he urges information specialists to "find ways of harvesting relevant data from researchers", to include research data about provenance into institutional records, and to investigate ways in which researchers can make their data available for harvesting by institutions.[29]

If we think of provenance data as an important and unavoidable part of the record of each object held in ALM institutions, and if we are aware of how time-consuming and consequently expensive provenance research for each object can be, as well as that provenance is a frequent research topic among researchers, it is completely justified to reuse research data in catalogue records. Dondi draws attention to this problem, concluding that while the recording of provenance, in her case predominantly for manuscripts and rare books, is a fairly recently acquired custom and achievement of the 20th century, it is scattered across hundreds of paper publications and in thousands of electronic library catalogues. Dondi emphasizes that the fragmentation of provenance information prevents scholarly studies and concludes that "if we want to work seriously towards the reconstruction, for better understanding of our book heritage we have to integrate provenance records to facilitate systematic investigation across institutional and national boundaries," and that "like for the integration of bibliographic records at national then European level in the past, the integration of provenance records today has to be perceived by Libraries and Librarians as the present, indispensable, goal. What is requested from them is first of all to understand, value, and facilitate the move toward provenance records integration."[30]

Museum approach

Provenance is a standard part of art-historical research, but "is neither stable a concept nor constant as an instrument" according to Geigenbaum

29 Ibid.

30 Christina Dondi, "The Integration of Provenance Data for the Reconstruction of the Dispersed European Book Heritage," *The Safeguard of Cultural Heritage: a Challenge from the Past for the Europe of Tomorrow*, ed. by Marco Fioravanti and Saverio Mecca (Firenze: Firenze University Press, 2011), 101.

and Reist.[31] They even state that information about provenance has sometimes been deliberately suppressed and conclude that "the role of provenance is contingent on the societies, disciplines, and institutions that make use of its focus of inquiry, tools, and records." In this way, they open up possibilities of recording that information, by showing its advantages rather than advocating standardization and the obligation of recording it. What is rather different from the approach in archival or library studies is that "information about the procession of ownership has traditionally been understood to be essential to any art-historical examination of a work of art, even if that inquiry was not regarded as a subject worthy of study in its own rights" and "the literature of art history has passed with little reflection on this category of information". Provenance information has been left to the experts in the art market and it is viewed only as a list "of the owners, auctions, and art dealers to which an object has been attached through time".[32] However, provenance information is understood as a valuable resource for discovering pieces of art that were once part of another work, and for some similar purposes.

However, provenance information is of critical importance to works of art and other museum objects particularly for establishing legal ownership and the prior chain-of-custody of an individual or sometimes a collection of objects (for example, for possibly looted works of art). This can be important for establishing rights for reproduction, exhibition, loans, and so forth. Museum provenance may also document the collector (for example, of an art collection), or the person or event whereby something was discovered (for example, in archaeology). In museology, documented evidence of provenance can also be used to assign or attribute the work of art to its possible creator and to establish its authenticity. As defined within the Getty Research Institute Project for the Study of Collecting and Provenance, "a full provenance provides a documented history that can help prove ownership, assign the work to a known artist, and establish the work of art's authenticity".[33] A work's provenance might be mined for clues

31 Gail Feigenbaum and Inge Reist. "Introduction," *Provenance: An Alternate History of Art* (Los Angeles: Getty Research Institute, 2012), 1.

32 Ibid.

33 The Getty Research Institute. *Collecting and Provenance Research*, http://www.getty.edu/research/tools/

that contribute to fundamental art-historical knowledge.

Just like for archives and libraries, provenance studies in the museum community are connected with social and cultural historical context, but also have an important commercial purpose, for example in determining auction/market price. Provenance information in the field of works of art has been left to the experts in the art market and to the advisers, collectors, and curators who actively play a role in the transfer of art from one owner to another. For those outside and even inside this latter group, provenance might mean little more than a listing of the owners, auctions and art dealers to which an object has been attached through time.[34]

Today in the art history community, as a part of the wider museum community, the understanding of provenance is expanded beyond the narrow definition of the term provenance, which attends only to the facts of ownership and transfer, to explore ideas and narratives about the origins and itineraries of objects.

xxx

This theoretical overview indicates that in all three communities the concept of provenance and provenance information support the reconstruction of the complex circumstances of the described object's production and lifecycle of use, as well as the historical, cultural and social contexts in which that happens, proving thus the authenticity of the object described.

In the archival community, provenance is the main principle reflecting the physical organisation of material, mirroring contexts of creation, function and holding history. In the library community, the concept of provenance is focused on providing information of previous owners of both items and collections in order to physically and/or virtually reunite items of the same collection in a particular time and place, and description "enables controlled search that progressively leads the user to finding and locating appropriate collections, searching its bibliographic aid, and final-

provenance/index.html.

34 Feigenbaum and Reist, "Introduction".

ly, finding and accessing the desired item".[35] In the museum community, provenance as a concept is used in the context of assigning value to works of art for purposes of their acquisition, description, presentation, tracking lost/looted property, restitution, etc.

Although the concept of provenance has different interpretations even within each community,[36] we can assume that standards and conceptual models applied in those communities are more or less based on a similar approach to information organization, access and display. Dondi calls for such an approach: "setting standards and foster integration of provenance indexes and authority files into a recognised central repository to reduce and prevent fragmentation of information which acquires its full and fundamental meaning for the European Heritage when seen as a whole".[37] The aggregation of provenance information about cultural objects held in ALM institutions needs not be physical, in a central repository, but can also be virtual; however, the idea of fostering contextualization of cultural objects in order to better understand culture as a whole should be the focus of their description.

Provenance information in conceptual models used in the ALM community

All three conceptual models to be analysed and aligned for this project express the concept of provenance; they are the *IFLA Library Reference Model: A Conceptual Model for Bibliographic Information (IFLA LRM)*, *CIDOC Conceptual Reference Model (CIDOC-CRM),* and ICA's *Records in Contexts: A Conceptual Model for Archival Description (RiC)*.

IFLA LRM[38] is a high-level conceptual reference model based on, but distinct from, the three previous models in the FR family of conceptual

35 Katić, "A Conceptual Model for Description of Written Heritage Collections," 388.

36 For the revision of the traditional concept of provenance and its consequences in archival theory, see, e.g., Jozo Ivanović. *Koncepti provenijencije dokumenata u arhivskoj teoriji i njihov utjecaj na pojmove vrednovanje i organizacija arhiva: doktorski rad* (Zagreb: Sveučilište u Zagrebu, Filozofski fakultet, 2017).

37 Dondi, "The Integration of Provenance Data," 102.

38 *IFLA Library Reference Model: A Conceptual Model for Bibliographic Information*. December, 2017, https://www.ifla.org/files/assets/cataloguing/frbr-lrm/ifla-lrm-august-2017_rev201712.pdf.

models (FRBR, FRAD and FRSAD). It is created in an entity-relationship modelling framework that is enhanced by hierarchy (isA) modelling for specific aspects of the bibliographic universe. The model was published in August 2017 "as a guide or basis on which to formulate cataloguing rules and implement bibliographic systems".[39] It defines users and their tasks, the three-level entity hierarchy from LRM-E1 to LRM-11 (Res, Work, Expression, Manifestation, Item, Agent (Person, Collective Agent), Nomen, Place and Time-span), the two-level hierarchy structure for attributes, and the two-level hierarchy structure for relationships following the entity hierarchy structure. The top level of the hierarchy structure for relationships is the LRM-R1 "Res 'is associated with' Res", followed by relationships on the second level from LRM-R2 to LRM-R36. Each entity, attribute or relationship has its own definition, scope notes and examples.

CIDOC-CRM was developed by the International Committee for Documentation (CIDOC) of the International Council of Museums (ICOM); its 6.2.3 version was published in 2017.[40] The role of the CIDOC-CRM is "to enable information exchange and integration between heterogeneous sources of cultural heritage information. It aims at providing the semantic definitions and clarifications needed to transform disparate, localised information sources into a coherent global resource, be it within a larger institution, in intranets or on the Internet."[41] It comprises Class Declaration (E-1 to E-90) and Property Declaration (P-1 to P-149). Classes are declared by class names as headings preceded by unique class identifier to which sub-classes and/or super-classes are added. Scope notes, examples and properties with their unique identifiers, forward and reverse names and the class range are also added. Properties are declared by property names as headings preceded by unique property identifiers; domain (the class for which the property is defined), range (the class to which the property points, or that provides the values for the property), super-property (a cross-reference to any sub-properties the property may have), quantification (1:many, many:many, many:1), scope notes and examples.

39 Ibid., 10.

40 *CIDOC-Conceptual Reference Model*. Version 6.2.3 (October 2017), http://www.cidoc-crm.org/sites/default/files/2017-12-30%23CIDOC%20CRM_v6.2.3_esIP.pdf.

41 Ibid., i.

RiC's[42] draft version was published by ICA in 2016. It is intended to provide the semantic and structural foundation for developing archival description systems or descriptive modules within record management systems. It accommodates the existing predominant description practice codified in ICA's four descriptive standards – ISAD(G), ISAAR(CPF), ISDIAH and ISDF, but also goes beyond them conceptually and structurally. It is based on similar methodology and takes into account the same technology (semantic web and LOD) as IFLA LRM and CIDOC-CRM, defining entities (RiC-E1 to RiC-E14), properties (RiC-P1 to RiC-P67) and relations among entities (RiC-R1 to RiC-R792), including shared properties of relation to entities Date and Place (RiC-P68 Date and RiC-P69 Place). Each entity and property have a declared definition, scope notes and examples. The Data Type element is also added to each property. Relations are listed according to the relation number, relation domain, relation range, inverse relation name and number, with no definition.

The purpose of the alignment of the three models is to research the concept of provenance information as it is expressed in these models in order to determine what entities (classes) and relationships (properties) are necessary to be built into the rules of the newly designed Croatian cataloguing code for the ALM communities. We will not discuss here the alignment of properties, i.e. attributes,[43] the task that has been planned as the next step of our work.

The entities relevant for expressing the concept of provenance are described in Table 1. In IFLA LRM, provenance is linked to a single entity LRM-E5 Item but there is no provision to link provenance information to a set or collection of items that are commonly met in libraries. This is because constituting a library collection is an administrative or management decision giving rise to administrative metadata which is as such explicitly excluded from IFLA-LRM's scope.[44] On the other hand, both

42 *Records in Contexts: A Conceptual Model for Archival Description*. Consultation Draft v. 01, September, 2016, https://www.ica.org/en/egad-ric-conceptual-model.

43 CIDOC-CRM defines properties in the meaning of IFLA LRM's attributes (of entities) and relationships, so only those properties which function as relationships in the CIDOC-CRM will be taken into account. The term 'property' in RiC has the same meaning as attribute in IFLA LRM.

44 *IFLA Library Reference Model,* 9.

CIDOC-CRM and RiC define class or entity for the concept of collection. CIDOC-CRM's class E78 Collection comprises "aggregations of instances of E18 Physical Things that are assembled and maintained by one or more instances of E39 Actor",[45] and RiC's entity E3 Record Set is defined as "one or more Records that are intellectually brought together at some Date, by an Agent, wherever the Records may reside and whatever the shared properties or relations among them may be".[46]

Furthermore, alignment is established between entities LRM-E6 Agent, CIDOC-CRM's E39 Actor and RiC-E4 Agent. IFLA-RLM defines LRM-E7 Person and LRM-E8 Collective Agent as subclasses of the entity LRM-E6 Agent, while CIDOC-CRM, in the same manner, defines E21 Person and E74 Group as subclasses of E39 Actor. LRM-E7 Person corresponds exactly to CIDOC-CRM's E21 Person, while E74 Group corresponds more broadly to LRM-E8 Collective Agent. Such level of granularity does not exist in RiC-E4 Agent.

Table 1 Entities (classes) relevant for the concept of provenance in IFLA-LRM, CIDOC-CRM and RiC

IFLA-LRM/Entity	CIDOC-CRM/Class	RiC/Entity
LRM-E5 Item	E18 Physical Thing E78 Collection	RiC-E1 Record RiC-E2 Record Component RiC-E3 Record Set
LRM-E6 Agent LRM-E7 Person LRM-E8 Collective Agent	E39 Actor E21 Person E74 Group	RiC-E4 Agent
LRM-E11 Time-span	E52 Time-span	RiC-E12 Date
LRM-E10 Place	E53 Place	RiC-E13 Place

Table 2 shows provenance relationships defined in the three models. LRM-R10 indicates only current ownership relation to LRM-E5 Item. Much more granular are provenance relationships established in CIDOC-CRM and RiC. CIDOC-CRM's P51 and P52 express former and

45 *CIDOC-Conceptual Reference Model*, 30.
46 *Records in Contexts*, 13.

current ownership of E18 Physical Thing. RiC's former and current ownership relations (RiC-R26/33, RiC-R89/95, and RiC-R154/164) encompass RiC-E1 Record, RiC-E2 Record Component and RiC-E3 Record Set. Both CIDOC-CRM and RiC, define also custodianship relations. We can say that RiC-R25/32, RiC-R88/94, RiC-152/162 (is/was held by / is/was holder of) are actually the equivalents of CIDOC-CRM's P49 (has/is former or current keeper of) and P50 (has/is current keeper of).

CIDOC-CRM's E78 Collection is excluded from Table 2 because only P109 (has current or former curator / is current or former curator of) relationship is established to it. P109 is not recognized as provenance relationship since it "identifies E39 Actor who assume or have assumed overall curatorial responsibility for E78 Collection",[47] including preservation and other maintenance aims. CIDOC-CRM considers the concept of provenance to be related to a particular item – E18 Physical Thing, and not to E78 Collection.

Table 2 Provenance relationships in IFLA-LRM, CIDOC-CRM and RiC

<table>
<tr><th>IFLA-LRM</th><th>CIDOC-CRM</th><th>RiC</th></tr>
<tr><td>LRM-R10
Domain: Item
Relationship name:
is owned by/owns
Range: Agent</td><td>P51
Domain: Physical thing
Property name: has/is former or current owner of
Range: Actor</td><td>RiC-R26/33
Relation Domain: Record
Relation Name: is/was owned by / owns/was owned by
Relation Range: Agent</td></tr>
<tr><td rowspan="2"></td><td>P52
Domain: Physical thing
Property name: has/is current owner of
Range: Actor</td><td rowspan="2">RiC-R89/95
Relation Domain: Record Component
Relation Name: is/was owned by / owns/was owned by
Relation Range: Agent</td></tr>
<tr><td>P49
Domain: Physical thing
Property name: has/is former or current keeper of
Range: Actor</td></tr>
</table>

47 *CIDOC-Conceptual Reference Model*, 65.

IFLA-LRM	CIDOC-CRM	RiC
		RiC-R154/164 Relation Domain: Record Set Relation Name: **is/was owned by / owns/was owned by** Relation Range: Agent
	P50 Domain: Physical thing Property name: **has/is current keeper of** Range: Actor	RiC-R25/32 Relation Domain: Record Relation Name: **is/was held by / is/was holder of** Relation Range: Agent
		RiC-R88/94 Relation Domain: Record Component Relation Name: **is/was held by / is/was holder of** Relation Range: Agent
		RiC-R152/162 Relation Domain: Record Set Relation Name: **is/was held by / is/was holder of** Relation Range: Agent

In addition to ownership and custodian relationships, the RiC expresses provenance through a number of other relationships that are established between entities RiC-E1 Record / RiC-E2 Record Component / RiC-E3 Record Set and RiC-E4 Agent. These are shown in Table 3 and illustrate the archival tradition.

Table 3 RiC relationships between Record/Record Component/Record Set and Agent expressing provenance

Relation Domain: RiC-E1 Record	**Relation Domain: RiC-E2 Record Component**	**Relation Domain: RiC-R3 Record Set**
		RiC-R155 Relation Name: **was accumulated by / accumulated** Relation Range: Agent
RiC-R27 Relation Name: **was addressed to / was addressee** Relation Range: Agent		RiC-R156 Relation Name: **was addressed to / was addressee** Relation Range: Agent
RiC-R29 Relation Name: **was authored by / authored** Relation Range: Agent	RiC-R91 Relation Name: **was authored by / authored** Relation Range: Agent	
		RiC-R157 Relation Name: **was arranged by / arranged** Relation Range: Agent
		RiC-R158 Relation Name: **was assembled by / assembled** Relation Range: Agent
RiC-R30 Relation Name: **was collected by / collected** Relation Range: Agent	RiC-R92 Relation Name: **was collected by / collected** Relation Range: Agent	RiC-R160 Relation Name: **was collected by / collected** Relation Range: Agent
RiC-R31 Relation Name: **was created by / created** Relation Range: Agent	RiC-R93 Relation Name: **was created by / created** Relation Range: Agent	RiC-R161 Relation Name: **was created by / created** Relation Range: Agent
RiC-R35 Relation Name: **was written by / wrote** Relation Range: Agent	RiC-R96 Relation Name: **was written by / wrote** Relation Range: Agent	

All three models define Time-span/Date and Place entities used to record relationships between periods (of creation and ownership) with the start and end of the activity, and place of the activity in relation to primary entities (Table 4). The difference between the methods for expressing these relationships in RiC and CIDOC-CRM on the one hand and IFLA LRM on the other is that the first two models name specific relationships between specific entities, while IFLA LRM uses the Res entity as the top entity, so that any entity defined at the lower level can be related to the entities of LRM-E11 Time-span and LRM-E10 Place. In this way, it is possible to record provenance information in a structured form.

Table 4 Entities Time-span/Date and Place and their relationships with entities relevant to provenance in RiC, CIDOC-CRM and IFLA LRM

Entity: Time-span/Date	Entity: Place
RiC-R646 Relation domain: Date Relation Name: **was creation date of / had creation date of** Relation Range: Record	RiC-R711 Relation domain: Place Relation Name: **was creation location of / was created at** Relation Range: Record
RiC-R649 Relation domain: Date Relation Name: **was creation date of / had creation date of** Relation Range: Record Component	RiC-R717 Relation domain: Place Relation Name: **was creation location of / was created at** Relation Range: Record Component
RiC-R653 Relation domain: Date Relation Name: **was creation date of / had creation date of** Relation Range: Record Set	RiC-R723 Relation domain: Place Relation Name: **was creation place of / was created at** Relation Range: Record Set
[CIDOC-CRM] P78 Domain: Time-span Property name: **is identified by/identifies** Range: Time Appellation	[CIDOC-CRM] P87 Domain: Place Property name: **is identified by/identifies** Range: Place Appellation
[CIDOC-CRM] P86 Domain: Time-san Property name: **falls within (contains)** Range: Time-span	[CIDOC-CRM] P53 Domain: Physical Thing Property name: **has/is former or current location of** Range: Place
	[CIDOC-CRM] P54 Domain: Physical Thing Property name: **has/is current permanent location** Range: Place

Entity: Time-span/Date	Entity: Place
LRM-R35 Domain: Res Relationship name: **has association with / is associated with** Range: Time-span	LRM-R33 Domain: Res Relationship name: **has association with / is associated with** Range: Place
LRM-R36 Domain: Time-span Relationship name: **has part / is part of** Range: Time-span	LRM-R34 Domain: Place Relationship name: **has part / is part of** Range: Place

Conclusion

The concept of provenance and recording provenance information in ALM communities analysed in this paper intends to inform and support the project *Production, Publishing and Maintenance of National Cataloguing Rules, 2014-2018*, which aims to design national cataloguing rules for description and access to resources in archives, libraries and museums. Despite the fact that it is not unanimously theoretically interpreted and adopted even within each community, provenance information is recognised in all three communities as an important part of description and access.

Conclusions from the theoretical part of this paper are that:

- provenance information is crucial for determining the cultural, social and other contexts of an object and as such is present in all three communities,
- in archival description, provenance has a fundamental role in organizing material; such a concept is exclusive to archival description,
- in library description, provenance refers to information on previous owners of (mostly) books and is connected with special collections, particularly old and rare books and manuscripts; this concept can be applied to other communities,
- in museum description, provenance refers mostly to information determining the value of an object; this concept can be applied to

other communities,

- archival theory recognises the importance of expressing and recording multiple, multi-layered provenance which is preferably recorded by expressing relations between the record and successive agents; this concept can be applied to other communities,
- provenance is crucial not only for determining the authenticity of an object, e.g., a record, but also of its description as such, which is a concept that originated in archival science but has become important for all communities, particularly with the introduction of semantic web technologies,
- provenance information is a topic of interest for a range of researchers who demand that provenance information is recorded not only as extensive textual notes, but also as structured information, available for download, visualization, data-mining and other research methods,
- provenance information is a topic of general public interest and has societal, cultural, etc. functions.

The new cataloguing rules should therefore take into consideration the following:

- provenance information should include information on previous owner(s), collector(s) and chain-of-custody of the item and collection,
- provenance information should be expressed in its textual (transcribed from the object being described) and authority form (access points),
- provenance information should be assigned at the item and collection level,
- since IFLA LRM considers the constitution of library collection as administrative metadata which is out of its scope, an extension of the implementation model for the rules should be made via the E78 Collection class in CIDOC-CRM and/or RiC-E3 Record Set entity,

- IFLA LRM provenance relationship between LRM-E6 Agent (LRM-E7 Person and LRM-E8 Collective Agent) and LRM-E5 Item should be extended in the implementation model for the rules with RiC relationships between RiC-E4 Agent and RiC-E1 to RiC E3 Record/Record Component/ Record Set, and CIDOC-CRM relationship between E39 Actor and E18 Physical Thing,
- provenance is an event-based concept and as such should be expressed through relationships between Agent/Actor (LRM-E6, E39, RiC-E4), Location/Place (LRM-E10, E53, RiC-E13) and Time-span/Date (LRM-E11, E52, RiC-E12) to enable reconstruction of chain of ownership or custody.

We can draw the conclusion that concepts of provenance expressed in the three models are not competing but can be harmonised in the design of the implementation model for the cataloguing rules based on IFLA LRM extended by the concepts defined in CIDOC-CRM and RiC.

References

Burrows, Toby. "Provenance Data: Recommendations for Cultural Heritage Institutions," *Reconstructing the Phillipps Collections: Toby Burrows: news from an EU project aimed at reconstructing the manuscript collection of Sir Thomas Phillipps*, https://tobyburrows.wordpress.com/2016/07/29/provenance-data-recommendations-for-cultural-heritage-institutions/.

CIDOC-Conceptual Reference Model. Version 6.2.3 (October 2017), http://www.cidoc-crm.org/sites/default/files/2017-12-30%23CIDOC%20CRM_v6.2.3_esIP.pdf.

Congrès de Bruxelles 1910. "Actes". Bruxelles, 1912.

Curwen, Tony; Gunilla Jonsson. "Provenance and the Itinerary of the

Book: Recording Provenance Data in On-line Catalogues," *Imprints and Owners: Recording the Cultural Geography of Europe,* ed. by David J. Shaw. London: Consortium of European Research Libraries, 2007, 31-47.

Dondi, Christina. "The Integration of Provenance Data for the Reconstruction of the Dispersed European Book Heritage," *The Safeguard of Cultural Heritage: a Challenge from the Past for the Europe of Tomorrow*, ed. by Marco Fioravanti and Saverio Mecca. Firenze: Firenze University Press, 2011, 100-102, file:///C:/Users/User/Downloads/safeguard_cultural_report.pdf.

Douglas, Jennifer. "Origins: Evolving Ideas about the Principle of Provenance," in *Currents of Archival Thinking*. Santa Barbara, etc.: Libraries Unlimited, 2010.

Feigenbaum, Gail and Inge Reist. "Introduction," *Provenance: An alternate History of Art*. Los Angeles: Getty Research Institute, 2012, 1-4.

The Getty Research Institute. *Collecting and Provenance Research*, http://www.getty.edu/research/tools/provenance/index.html.

Gilliland, Anne J. "Contemplating Co-creator Rights in Archival Description," *Knowledge Organization,* 3, no. 5 (2012): 340-346.

Hurley, Chris. *Problems with Provenance* (19 May 1995), https://www.descriptionguy.com/images/WEBSITE/problems-with-provenance.pdf.

IFLA Library Reference Model: A Conceptual Model for Bibliographic Information. December, 2017, https://www.ifla.org/files/assets/cataloguing/frbr-lrm/ifla-lrm-august-2017_rev201712.pdf.

ISAAR (CPF): International Standard Archival Authority Record for Corporate Bodies, Persons and Families. Second edition. Paris: International Council on Archives, 2004, https://www.ica.org/en/isaar-cpf-international-standard-archival-authority-record-corporate-bodies-persons-and-families-2nd.

ISAD(G): General International Standard Archival Description. Second edition. Ottawa, 2000, https://www.ica.org/sites/default/files/CBPS_2000_Guidelines_ISAD%28G%29_Second-edition_EN.pdf.

ISDIAH: International Standard for Describing Institutions with Archival Holdings. First edition. Paris: International Council on Archives, 2011, https://www.ica.org/en/isdiah-international-standard-describing-institutions-archival-holdings.

ISDF: International Standard for Describing Functions. Paris: International Council on Archives, 2007, https://www.ica.org/sites/default/files/CBPS_2007_Guidelines_ISDF_First-edition_EN.pdf.

Ivanović, Jozo. *Koncepti provenijencije dokumenata u arhivskoj teoriji i njihov utjecaj na pojmove vrednovanje i organizacija arhiva: doktorski rad*. Zagreb: Sveučilište u Zagrebu, Filozofski fakultet, 2017.

Jensen, Kristian. "Old Books in New Libraries: Democratisation of Access or a Digital Divide," in *Imprints and Owners: Recording the Cultural Geography of Europe*, ed. by David J. Shaw. London: Consortium of European Research Libraries, 2007, 67-82.

Katić, Tinka. "A Conceptual Model for Description of Written Heritage Collections," *Summer school in the Study of Historical Manuscripts: Proceedings,* ed. by Mirna Willer and Marijana Tomić. Zadar: Sveučilište u Zadru, 2013, 371-391.

Katić, Tinka. "Određivanje jedinstvene odrednice za imena osoba koje su, osim autora, sudjelovale u nastanku knjige i povijesti primjerka," *Normizacija osobnih imena u knjižničarstvu i leksikografiji*. Zagreb: Hrvatsko bibliotekarsko društvo, 1996, 157-172.

Katić, Tinka. *Stara knjiga: bibliografska organizacija informacija*. Zagreb: Hrvatsko knjižničarsko društvo, 2007.

Lakuš, Jelena. "Thinking Like a Book Historian: Searching for the Evidence of Book Ownership," *Records, Archives and Memory: Selected papers,* ed. by Mirna Willer, Anne J. Gilliland and Marijana Tomić. Zadar: Sveučilište u Zadru, 2015, 193-221.

Millar, Laura. "The Death of the Fonds and the Resurrection of Provenance: Archival Context in Space and Time," *Archivaria*, 53 (2002): 1-15.

Mittler, Elmar. "The Bibliotheca Palatina: A Scattered Library Reconstructed," in *Virtual visits to lost libraries,* ed. by Ivan Boserup and David J. Shaw. London: Consortium of European Research Libraries, 2011, 1-20.

Nacionalni pravilnik za katalogizaciju, http://npk.nsk.hr/.

Nesmith, Tom. "The Concept of Societal Provenance and Records of

Nineteenth-century Aboriginal-European Relations in Western Canada: Implications for Archival Theory and Practice," *Archival Science* 6, nos. 3-4 (2006): 351-360.

Pearson, David. "Provenance and Rare Book Cataloguing: Its Importance and its Challenges," in *Books and their Owners: Provenance Information and the European Cultural Heritage,* ed. by David J. Shaw. London: Consortium of European Research Libraries, 2005, 1-9.

Pearson, David. *Provenance Research inBbook History: A Handbook*. London: The British Library, Oak Knoll Press, 1994.

Popovici, Bogdan Florin. "Records in Context: Towards a New Level in Archival Description?" *Zbornik mednarodne konference Radenci 2016 Tehnični in vsebinski problemi klasičnega in elektronskega arhiviranja*, ur. Nina Gostenčnik. Maribor: Pokrajinski arhiv Maribor, 2016, 13-31.

"Provenance." *Merriam-Webster.com*, *Merriam-Webster*, www.merriam-webster.com/dictionary/provenance.

Records in Contexts: A Conceptual Model for Archival Description. Consultation Draft v. 01, September, 2016, https://www.ica.org/en/egad-ric-conceptual-model.

Renhart, Erich. "Information on Vanished Libraries: Materials Buried in Books and Archives," *Records, Archives and Memory: Selected Papers,* ed. by Mirna Willer, Anne J. Gilliland and Marijana Tomić. Zadar: Sveučilište u Zadru, 2015), 183-192.

Renhart, Erich. "Tracing Our Written Heritage: Challenges, Perspectives, Questions," S*ummer School in the Study of Old Books: Proceedings,* ed. by Mirna Willer and Marijana Tomić. Zadar: Sveučilište u Zadru, 2010, 107-118.

Shaw, David. "Who Owned this Book? Provenance Studies in the European Dimension," *Summer School in the Study of Old Books*, ed. by Mirna Willer and Marijana Tomić. Zadar: Sveučilište u Zadru, 2010, 157-171.

Tomić, Marijana. "Provenance Information in Croatian Catalogues of Heritage Collections," *Summer School in the Study of Old Books,* ed. by Mirna Willer and Marijana Tomić. Zadar: Sveučilište u Zadru, 2010, 173-199.

Vukadin, Ana. “Pravilnik za opis i pristup gradivu u arhivima, knjižnicama i muzejima: načela i struktura,” *Arhivi, knjižnice, muzeji: mogućnosti suradnje u okruženju globalne informacijske infrastrukture*, 20 (2017): 110-129.

Wagner, Betina. “The Incunable Collection of the Bayerische Staatsbibliothek München and its Provenances,” in *Books and Their Owners: Provenance Information and the European Cultural Heritage,* ed. by David J. Shaw (London: Consortium of European Research Libraries, 2005), 55-79.

PROVENIJENCIJA U AKM ZAJEDNICI TRI SUPROTSTAVLJENA KONCEPTA?

Ključne riječi:
provenijencija, kataložna pravila, konceptualni modeli, IFLA Library Reference Model (IFLA LRM), CIDOC-CRM, ICA Records in Contexts (RiC)

Sažetak

U radu je prikazano istraživanje podataka o provenijenciji građe u zajednici arhiva, knjižnica i muzeja (AKM) koje se provelo u svrhu iznalaženja preporuka za njihovo bilježenje pri oblikovanju nacionalnih kataložnih pravila u sklopu projekta Izrada, objavljivanje i održavanje nacionalnog pravilnika za katalogizaciju: 2014.-2018. Provenijencija se općenito definira kao "povijest posjedovanja vrijednog umjetničkog ili književnog objekta". Iako je kao koncept prisutna u svim trima zajednicama, različito se definira te, stoga, i različito iskazuje u opisima, ovisno o njihovom poslanju, vrsti građe koju čuvaju i potrebama korisnika. To je prikazano u kratkom pregledu temeljnih ideja koncepta provenijencije u prvom dijelu rada. Drugi dio rada zasniva se na usklađivanju triju konceptualnih modela – IFLA LRM, RiC i CIDOC-CRM, poglavito njihovih entiteta i odnosa relevantnih za iskazivanje provenijencije. Zaključci teorijskog pregleda kao i rezultati dobiveni usklađivanjem modela daju jasan odgovor na postavljeno istraživačko pitanje: koncepti provenijencije, unatoč osobitostima triju zajednica, mogu se međusobno usklađivati i integrirati unutar pojedinih implementacijskih modela.

V

Evidence and Evidencing

EVIDENCE OF READING IN THE PAST

Jelena Lakuš
University of J. J. Strossmayer in Osijek,
Faculty of Philosophy,
Department of Information Sciences,
Croatia

Keywords:
Book history research, history of reading, evidence of reading, historical reader, historical sources

Abstract

Since its beginning as a field of scholarly research, the history of reading has faced the problem of finding representative evidence about reading in the past. Sources that document the reading practices of historical readers are often obscure, scanty, fragmentary and scattered. This paper takes a look at the most important among them, both those that offer a good insight into the reading habits peculiar to individual readers and those that record reading practices shared by communities of readers in a given cultural context, showing the possibilities, difficulties and challenges of using them in writing a history of reading. The purpose of the paper is to demonstrate that although all of these sources are imperfect and only to some extent reliable they can be quite revealing if historians of reading know how to use and interpret them.

Introduction

As Robert Darnton, one of the most important authorities in book history research has argued it in his famous methodological essay *First Steps toward a History of Reading*, which was published as far back as 1986, "reading has a history […] a point so simple that it may escape our notice."[1] It is an activity, Darnton has stated, that "we share with our ancestors yet can never be the same as what they experienced."[2] Laying out an agenda for future scholarship, Darnton has alerted us that "it should be possible to develop a history as well as a theory of reader response."[3] Studies of reading in the past are now commonplace in the history of the book. [4] However, it was not the case two or three decades ago. Until the 1990s, readers and their reading practices tended to be taken for granted in book history studies despite calls for a shift in focus from the book to the reader.[5] Most of the studies focused on authors, booksellers and printers, while "readers appear mostly indirectly, through their presumed role in constituting "the market" for particular genres."[6] As a corollary of that, the reader was, as David Finkelstein and Alistair McCleery have put it in *An Introduction to Book History*, the "missing link" of book history.[7] Since 1986, however, the historiography of reading has advanced quickly as Jonathan Rose has suggested in his equally important article entitled *Arriving at a History of Reading*, published in 2004.[8] Studies centred on the

1 Robert Darnton, "First Steps toward a History of Reading," in *The Kiss of Lamourette: Reflections in Cultural History,* ed. Robert Darnton (New York-London: W. W. Norton, 1990), 187. The chapter was first published in the *Australian Journal of French Studies* in 1986.

2 Ibid., 155.

3 Ibid., 157.

4 Although some scholars have used the history of the book interchangeably with the history of reading, the history of reading is a much broader field, encompassing a greater body of evidence than that found in books alone. Historians of reading have drawn the attention beyond the content of the printed page to readers and reading practices and experiences. As a result, the history of reading derived from many disciplines, not only book history and bibliography, but also literary criticism, social, cultural and intellectual history, history of leisure, gender and popular culture, as well as communication studies. See: Heidi Brayman Hackel, "Practising and Teaching Histories and Theories of the Book," *Pacific Coast Philology* 40, 2 (2005): 3-9.

5 Ian Jackson, "Approaches to the History of Readers and Reading in Eighteenth-Century Britain," *The Historical Journal* 47, 4 (2004):1042.

6 Ibid., 1044.

7 David Finkelstein and Alistair McCleery, "Readers and Reading," in *An Introduction to Book History* (London and New York: Routledge, Taylor and Francis Group, 2013), 101.

8 Jonathan Rose, "Arriving at a History of Reading," *Historically Speaking* (2004): 36-39.

history of reading have proliferated, such those of Richard Daniel Altick,[9] Carlo Ginzburg,[10] Janice Radway,[11] Martin Lyons,[12] Kate Flint,[13] Alberto Manguel,[14] Robert Darnton,[15] Bernadette Cunningham and Máire Kennedy,[16] Jacquline Pearson,[17] Jonathan Rose,[18] Heather J. Jackson,[19] Elizabeth McHenry,[20] Guglielmo Cavallo and Roger Chartier,[21] William St Clair,[22] Karin Littau,[23] William Sherman,[24] Rosalind Crone, Katie Halsey, W. R. Owens and Shafquat Towheed,[25] Belinda Jack,[26] Stephen Orgel[27] and many

9 For instance, Richard Daniel Altick, *The English Common Reader: A Social History of the Mass Reading Public, 1800-1900* (Chicago: The University of Chicago Press, 1957).

10 For instance, Carlo Ginzburg, *The Cheese and the Worms* (Baltimore: *Johns Hopkins University Press,* 1980).

11 For instance, Janice A. Radway, *Reading the Romance: Woman, Patriarchy and Popular Literature* (Chapel Hill: University of North Carolina Press, 1984) and Janice A. Radway, *A Feeling for Books: The Book-of-the-Month Club, Literary Taste and Middle-Class Desire* (Chapel Hill: The University of North Carolina Press, 1997).

12 For instance, Martin Lyons and Lucy Taska, *Australian Readers Remember: an oral history of reading, 1890-1930* (Melbourne: OUP Australia and New Zealand, 1992), Martin Lyons, *Readers and Society in Nineteenth Century France: Workers, Women, Peasants* (New York: Palgrave, 2001), Martin Lyons, *Reading Culture and Writing Practices in Nineteenth-Century France* (Toronto, Buffalo and London: University of Toronto Press, 2008) and Martin Lyons, *A History of Reading and Writing in the Western World* (New York: Palgrave, 2010).

13 For instance, Kate Flint, *The Woman Reader, 1837-1941* (Oxford: Oxford University Press, 1993).

14 Alberto Manguel, *A History of Reading* (London: HarperCollins, 1996).

15 For instance, Robert Darnton, *The Forbidden Best-sellers of Revolutionary France* (New York and London: W.W. Norton, 1997) and Robert Darnton, *The Devil in the Holy Water or the Art of Slander in France from Louis XIV to Napoleon* (Philadelphia: University of Pennsylvania Press, 2010).

16 Bernadette Cunningham and Máire Kennedy, eds., *The experience of reading: Irish historical perspectives* (Dublin: Rare Books Group of the Library Association of Ireland, 1999).

17 For instance, Jacqueline *Pearson*, *Women's Reading in Britain 1750-1835: A Dangerous Recreation* (Cambridge: Cambridge University Press, 1999).

18 For instance, Jonathan Rose, *The Intellectual Life of the British Working Classes* (New Haven: Yale University Press, 2001).

19 For instance, Heather J. Jackson, *Marginalia: Readers Writing in Books* (London: Yale University Press, 2001) and Heather J. Jackson, *Romantic Readers: The Evidence of Marginalia* (London: Yale University Press, 2008).

20 For instance, Elizabeth McHenry, *Forgotten Readers: Recovering the Lost History of African American Literary Societies* (Durham, NC: Duke University Press, 2002).

21 Guglielmo Cavallo and Roger Chartier, *A History of Reading in the West* (Cambridge, UK: Polity Press, 2003)

22 For instance, William St Clair, *The Reading Nation in the Romantic Period* (Cambridge: Cambridge University Press, 2004).

23 Karin Littau, *Theories of Reading: Books, Bodies and Bibliomania* (Cambridge: Polity Press, 2006).

24 William Sherman, *Used Books: Marking Readers in Renaissance England* (Philadelphia: University of Pennsylvania Press, 2008).

25 Shafquat Towheed and W. R. Owens, eds., *The History of Reading. Volume I. International Perspectives, c. 1550-1990* (London: Palgrave Macmillan, 2010), Katie Halsey and W. R. Owens, eds., *The History of Reading: Volume II. Evidence from the British Isles, c. 1750-1950* (London: Palgrave Macmillan, 2011), Rosalind Crone and Shafquat Towheed, eds., *The History of Reading. Volume 3: Methods, Strategies, Tactics* (London, Palgrave Macmillan, 2011).

26 Belinda Jack, *The Woman Reader* (New Haven, CT: Yale University Press, 2012).

27 Stephen Orgel, *The Reader in the Book: A Study of Spaces and Traces* (*Oxford:* Oxford University Press, 2015).

others.[28] Scholars have adopted a more reader-centred approach, coming to understand that histories of print production and distribution are incomplete without the history of reception.[29] The topics and approaches of studies have been so diverse that Leah Price has described the history of reading as "less like a field than a battleground."[30] Several large-scale research initiatives appeared as well, such as the internationally focused *Reading Experience Database*,[31] the US-based database *What Middletown Read*,[32] or the *Scottish Readers Remember Project*.[33] All of these studies, projects and databases have gathered valuable data about reading experiences of "historical readers".[34] What they all have in common is first of all an approach that considers reading as both a social phenomenon and an individual experience.[35] In addition, since "the experience of reading van-

28 For a more extensive account of studies in the field of history of reading see Leah Price, "Reading: The State of Discipline," *Book History* 7 (2004): 303-320.

29 David Paul Nord, "Historical Readership Studies: A Methodological and Autobiographical Note," *American Journalism* 33, 1 (2016): 86.

30 Studies of reading have taken a variety of forms: some are organized around a particular reading public (for instance, Flint's, Pearson's or Jack's studies on female readership or Rose's study on working class readership), some around a genre of book and its reading public (for instance, Radway's study of reading romances) and some around a particular form of evidence (for instance, Jackson's study on readers writing marginalia in books). Price, "Reading," 303-308.

31 The Reading Experience Database (RED) is a research project and an open access database launched by the Open University and the British Library in the 1990s, joined later by Canada, Australia, New Zealand and Netherlands. Based on a multitude of sources, including diaries, memoirs, marginalia, commonplace books, sociological surveys, criminal court and prison records, the database captures the reading experiences of British subjects, both at home and abroad, and of visitors to the British Isles, between the invention of the printing press in 1450 and the end of the Second World War in 1945. The database was moved online in 2006. "The Reading Experience Database, 1450-1945," accessed October 1, 2016, http://www.open.ac.uk/Arts/reading/UK/.

32 The project began in 2003. The database was built upon the circulation records of the Muncie (Indiana) Public Library from 1891 until 1902. It documents every book that every library patron borrowed during that period. "What Middletown Read," accessed October 1, 2016, http://www.bsu.edu/libraries/wmr/about.php.

33 The research project ran from 2006 until 2009. It focused on the reading experiences of Scots in the 20th century, based mostly on the interviews across communities in Scotland, complemented by the use of archival and other sources. "Scottish Readers Remember: Project Overview," accessed October 1, 2016, http://sapphire.ac.uk/scottish-readers-remember-(ahrc-funded)/.

34 Nowadays many historians of reading prefer to use the term 'historical reader' rather than the 'typical' or 'common reader', the latter usually referring to the reader of newspapers, penny fiction and other reading material considered ephemeral and being the term previously widely employed by many historians (Richard Altick and many others). The term 'historical reader' takes into account "the way in which the individual reader is situated within a personal history […], as well as the broader historical contexts of gender, class, and race." Stephen Colclough, "Readers: Books and Biography," in *A Companion to the History of Book*, ed. Simon Eliot and Jonathan Rose (Oxford: Wiley-Blackwell Publishers, 2007), 53.

35 "As an individual practice, reading is a form of interpretation. As a social act, reading is part of the history of reception." Finkelstein and McCleery, "Readers and Reading," 101-102.

ishes with the reader,"[36] as Jennifer Howard put it, they all face the problem of finding representative evidence about the reading practices of readers in the past. This paper takes a look at the most important sources that document reading in the past, showing the possibilities, difficulties and challenges of using them in writing a history of reading. The purpose of the paper is to demonstrate that although all of these sources, both those that offer a good insight into the reading habits peculiar to individual readers and those that record reading practices shared by communities of readers in a given cultural context, are imperfect and only to some extent reliable, they can be quite revealing if historians of reading know how to use and interpret them. The sources used are both primary and secondary. The primary sources are identified partly by searching the relevant book history databases and partly by doing my own research on historical readers. The secondary sources are identified by using the literature review research method.

Historical Records of Reading in the Past: Possibilities, Difficulties and Challenges of Research

Why is important to study reading in the past? First of all, reading seems to be at the centre of a series of socio-cultural and political developments such as the commercialization of leisure, the development of political radicalism, the changing role of women, etc.[37] Furthermore, evidence of reading helps us to recognise the impact of significant texts on individuals and on society as a whole at key historical moments, for instance, their role in shaping popular ideas and opinions.[38] It helps us to understand the reception of a certain literary text or author, that is, the formation of literary canons.[39] After all, "no book's history concludes with

36 Jennifer Howard, "Secret Lives of Readers," *The Chronicle of Higher Education* (2012), accessed February 27, 2017, http://www.chronicle.com/article/Secret-Reading-Lives-Revealed/136261.
37 Jackson, "Approaches," 1041.
38 "History of Reading Tutorial 1. Finding evidence of reading in the past. Introduction," accessed October 15, 2016, http://www.open.edu/openlearn/ocw/mod/oucontent/view.php?id=1994&printable=1.
39 Ibid.

its publication. As soon as a book has a reader it has been changed."[40] In Darnton's well-known "communication circuit," readers and reading are its vital components – books are sold to readers, whose demand creates a market for more books, and printers and booksellers respond to that demand. Readers complete the circuit because they influence authors, readers themselves, both before and after the act of composition. [41]

However, as Darnton has stated in his 1986 essay, the reading experiences of the past might be difficult to uncover and reconstruct since "The documents rarely show readers at work, fashioning meaning from texts, and the documents are texts themselves, which also require interpretation. Few of them are rich enough to provide even indirect access to the cognitive and affective elements of reading, and a few exceptional cases may not be enough for one to reconstruct the inner dimensions of that experience."[42] The same has been suggested by many other historians of reading. Jackson has claimed that "historical readers have been more often taken for granted than examined in depth because the sources for historical reading experience are scanty and problematic; and even those that are available to us usually tell us more about what people read, and the contexts in which they did so, than about why they read what they did, and what they made of it."[43] David Finkelstein and Alistair McCleery echoed the same statement: "As written or printed texts are what survive, the reconstruction of reading history presents difficulties in the amount and nature of evidence available."[44] Thus, the evidence on the act of reading is often obscure, scanty, fragmentary and scattered.

Nevertheless, when they survive, the sources for the first question, "who read what?", are rather easily identified. These are, for instance, private inventory books and library catalogues, lending library records, subscription lists, and last wills and testaments. One cannot, however, construct the history of reading only on book ownership because book owners are not

40 Orgel, *Reader*, 154.
41 Robert Darnton, "What is the history of books?," *Daedalus* 111, 3 (1982): 67.
42 Darnton, "First Steps," 157.
43 Jackson, "Approaches,“ 1046.
44 Finkelstein and McCleery, "Readers and Reading," 118.

necessarily book readers just as book readers are not always book owners.[45] Lending library records can tell us what individual readers of some library checked out. They can provide a quantitative record of books borrowed, but they tell us little about how and why books were actually read and what effect reading had on the lives of their readers. Subscription lists make it possible for book historians to identify the extent, character, geography and social stratification of all those who financially supported the printing of a book but no more than that.[46] Last wills also only specified the disposition of property, including books. One cannot construct the history of reading on the basis of what was published and in how many editions and copies either. Publishers', printers' and booksellers' records can only generate useful statistics of book production and distribution (print runs, prices, purchasers) but cannot tell us how or even whether listed books were read. Thus, we have to look for evidence of how readers responded to texts and the nature of their reading experience, the term defined by the *Reading Experience Database* as "a recorded engagement with a written or printed text beyond the mere fact of possession."[47] We have to look for sources that give answers to more challenging questions of "where", "when", "how" and "why" historical readers read, the key questions put by most of the historians of reading. We have to look for the sources that contain evidence not only of what readers thought about what they read, but also of the social and cultural context of reading in the past, that is, in what circumstances historical readers read – alone or in a group, silently or aloud, while sick, in the bath, on the train, etc., where the reading took place – at home, at work, at the coffee shop, in nature, etc., at what time of day it occurred – in the morning, during the day, late at the night, etc., for what purpose – whether books were read casually and for the purpose of amusement, whether books were read to satisfy curiosity and a desire for

45 See: Jelena Lakuš, "Thinking like a book historian: searching for the evidence of book ownership," in *Records, Archives and Memory: selected papers from the Conference and School on Records, Archives and Memory Studies University of Zadar, Croatia, May 2013*, ed. Mirna Willer, Anne J. Gilliland, and Marijana Tomić (Zadar: Sveučilište u Zadru, 2015), 193-221.

46 See: Jelena Lakuš and Jelena Vukadin, "Pretplatničke liste kao izvor podataka za povijest knjige i čitanja: primjer pretplatničkih lista knjiga tiskanih u Dalmaciji u prvoj polovici 19. stoljeća," *Libellarium* 5, 1 (2012): 33-70.

47 "The Reading Experience Database, 1450-1945," accessed October 1, 2016, http://www.open.ac.uk/Arts/reading/UK/.

knowledge, for the purpose of spiritual elevation or for the political and/or ideological reasons, whether a text was read in one sitting or over a stretch of time, whether attitudes towards books differed amongst various social classes, religious denominations, men and women, the young and the old, and so on. Some of the most important and most often used historical records of reading in the past are presented and discussed below.

Autobiographical writings: diaries and memoirs

Since diaries and memoirs are perhaps the richest of all sources, they are most commonly used to study reading experiences. The diary of Dragojla Jarnević (1812-1875), a famous woman author from the period of the Croatian National Revival and an active participant in the social events of Croatian nineteenth century culture, is a good example.[48] Since Dragojla Jarnević loved to read, the diary provides a great deal of information about her reading habits and experiences. For the purpose of illustration, several diary entries have been selected. The first selected diary entry, dated 27th July 1845, shows that her whole daily routine was revolving around books and reading:

> *U jutro kako mlěko progutam odem sa knjigom ili u bašću ili i dolje prěko brěgovah 2-3 sata; potom dospěvša kući sědnem k stolu i šijem do 12; po obedu odem opet s knjigom do 2-3 sata i onda opet šijem do 6.*[49]

On 4th January 1837 she was remembering the time when she was a 12-year-old girl minding her sister's child and reading everything available to her, with no selection or direction:

48 The diary covers a period from January 1833 to November 1874. Dragojla Jarnević began writing it when she was 21, concluding at the age of 62, after more than four decades. Its first comprehensive edition, including over 800 pages, was published only in 2000. The diary provides rich insights not only into her emotional and everyday life, but also into the socio-political and cultural circumstances of the times in which she lived. Dragojla Jarnević, *Dnevnik* (Karlovac: Matica hrvatska Karlovac, 2000).

49 "In the morning, after I've had my milk, I take a book to the garden or go down over the hills for 2-3 hours; after coming home, I sit by the table and sew until noon; after lunch I take my book again for 2-3 hours and then sew again until 6." Ibid., 279.

Čitah bez izbora jerbo nepaziše nitko na mene. [...] Malo bijaše spisatelja od onda, koji mi nisu rukuh dopali. Lafontaine, Kotzebue, Schilling i Schiller, Kramer i Pichlerica, Frohberg, La Motte Foque, Clauren, W. Scott, Coper, Körner, Uhland, Byron i ostali. Sve čitah s pohlepom i bez da sam kojemu prvenstvo dala. Tek u zrelijoj dobi pronikla sam Körnera i Schillera, i za ovima dvama težila je duša moja. [50]

The quoted passage shows a wide range of genres, from poetry and drama to novels and travel journals, and a wide range of styles, mostly from the Romantic period. Another diary entry, dated 31st December 1837, testifies to impressions that the books had on her:

Jedina je moja stečevina da sam nemirna, nezadovoljna, i krila si želim za daleko u sviet moći proljetiti. Kooperovo pripovjedanje me dušom odnese daleko preko mora u amerikanske pustare. Skott me mami u britansku mrku glavnu varoš i vodi me skotskimi maglovitimi briegovi i obalami – a Petrarka me zove u klasičku Talijansku; pod blago podnebje i u sriedu umotvorah kakovih jedino njezini žitelji proizvadjati umiju. Oj i u Grčku me čeznuće tjera, kuda je nedavno Byron pjevao i kuda bih i ja želela tumarati medju razvalinami njekadašnje slave grčke. [51]

Answering the questions "who" (Dragojla Jarnević) read "what" (Scott, Lafontaine, Schiller and others), "how" (without any selection, with

50 "I read without any selection because nobody was paying attention. [...] There are few authors I haven't laid my eyes on since. Lafontaine, Kotzebue, Schilling and Schiller, Kramer and Pichler, Frohberg, La Motte Foque, Clauren, W. Scott, Coper, Körner, Uhland, Byron and others. I read everything with greed, not giving preference to anyone. Only in my later years did I understand Körner and Schiller, and it was the two of them that my soul yearned for." Ibid., 85.

51 "Being restless and discontented is my only achievement. If only I had wings to fly far away. Cooper's storytelling takes my soul far across the ocean, into the American wasteland. Scott lures me into the dark British capital city and takes me to misty Scottish hills and shores – Petrarch invites me to classical Italy; to the mild climate, into works of art that none but its citizens could produce. It is to Greece that my longing takes me, too, where Byron composed his poems not long ago, and where I would love to wander among the ruins of the former glory of Greece. Ibid., 99-100.

greed), "when" (in the morning, after lunch), "where" (in the garden, in the hills) and "why" (for instance, "Cooper's storytelling takes my soul far across the ocean"), these quoted passages, together with a number of others, demonstrate that Dragojla Jarnević's diary can be used as a legitimate source for the history of reading.[52]

Another excellent source for the history of reading is the diary of Thomas Turner, an 18th century village merchant and a passionate reader living in the Sussex village of East Hoathly in England.[53] The diary entry selected for the purpose of illustration, dated 28th February 1756, reveals plentiful information about his reading habits: what he read (Samuel Richardson's *Clarissa Harlowe*), who he read with (his wife), where (presumably at home), when (in the evening), how (passive because his wife was reading to him, which also implies reading aloud), even what impressions the book made on him:

> *In the even my wife finished reading of "Clarissa Harlowe", which I look upon as a very well-wrote thing though it must be allowed it is too prolix. I think the author keeps up the character of every person in all places; and as to the manner of its ending, I like it better than if it had terminated in more happy circumstances.*[54]

That Thomas Turner also practised reading to others suggests the following short diary entry, dated 1st May 1763: *Sam. Jenner drank tea with me, and to whom in the evening I read two of Tillotson's sermons.*[55] Some diary entries even reveal what he thought about what he read. The follow-

52 See: Jelena Lakuš and Anita Bajić, "Dnevnik Dragojle Jarnević kao izvor za povijest knjige i čitanja," *Književna smotra: časopis za svjetsku književnost* 46 (2014): 129-43; Jelena Lakuš and Anita Bajić, "Interpreting Diaries: History of Reading and the Diary of the Nineteenth-Century Croatian Female Writer Dragojla Jarnević," *Information & Culture* 52, 2 (2017): 163-185.

53 He kept the diary about ten years, from 1754 until 1765. The diary, containing about a third of the massive whole of the diary, was published in 1984. Thomas Turner, *The Diary of Thomas Turner 1754-1765,* ed. David Vaisey (Oxford: Oxford University Press, 1984).

54 Ibid., 32, accessed October 17, 2016, http://www.open.ac.uk/Arts/reading/UK/record_details.php?id=6220.

55 Ibid., 270, accessed October 17, 2016, http://www.open.ac.uk/Arts/reading/UK/record_details.php?id=6551.

ing entry, dated 13th May 1758, concerns William Wake's catechism *The principles of the Christian Religion explained in a brief commentary*, which was at the time widely circulated:

> *In the even finished reading Wake's "Catechism", which I think is a very good book and proper for all families, there being good instructions in it and also something which is prodigious moving. It is wrote in a lively, brisk manner and not as if the author wrote more out of form than for the good of people's souls, and at the same time it is a very plain, familiar style, suitable I think to the meanest capacities that can read. And so far as I can judge there is everything contained in it necessary to a man's salvation.*[56]

As can be seen from these examples, diaries are rich sources of information for historians of reading. Memoirs are very similar. However, unlike diaries that are usually written near the time of the event they record, memoirs are often written many years later, usually focusing exclusively on only one period or one aspect of an individual's life, covering, for instance, only professional life. In addition, unlike diaries that are usually kept for personal use, memoirs are intended for the public.

In his well-known book *The Intellectual Life of the British Working Classes* (2001), Jonathan Rose has used more than 900 memoirs of the 19th century British working classes demonstrating that they are excellent sources for the history of reading. One of these memoirs was Michael Stapleton's memoir *The Threshold*, published in 1958. It provides a plentiful of information about what and how he read as well as about how he acquired books, as shown in the following abstract, describing his longing for books and knowledge:

> *So I […] started examining every book in the house, ransacking forgotten cupboards and the hole under the stairs. I read*

56 Ibid., 149, accessed October 17, 2016, http://www.open.ac.uk/Arts/reading/UK/record_details.php?id=6374.

everything I could understand, and begged twopenny bloods quite shamelessly from the boys at school who were fortunate enough to enjoy such things. I absorbed an immense amount of useless information, but occasionally a treasure came my way and I would strain my eyes under the twenty-watt bulb which lighted our kitchen. A month-old copy of the 'Wizard' would be succeeded by a handbook for vegetarians, and this in turn would be followed by 'Jane Eyre'. 'Tarzan and the Jewels of Ophir' was no sooner finished than I was deep in volumes three and four of a history of 'The Conquest of Peru' (the rest of the set was missing). I would go from that to 'Rip van Winkle' and straight on to a tattered copy of the Hotspur.[57]

The memoir of a 19th century Croatian politician, writer and journalist Imbro Ignjatijević Tkalac (1824-1912), entitled *Mladenačke uspomene iz Hrvatske* (Youthful Memories from Croatia) is of similar value.[58] Tkalac was a genuine intellectual, constantly seeking for knowledge and a very passionate reader. For these reasons, his writings are abundant in remarks on books and reading, as shown in the following two examples:

Radovalo me jedino čitanje pa sam gutao svaku njemačku, talijansku ili francusku knjigu koja bi mi slučajno dopala ruku.[59]

[…] moja najmilija lektira onog vremena bila je „Povijest neobičnih istraživačkih putovanja" u četiri sveska. […] Iz biblioteke grofa Đure Draškovića ponio je brat nekoliko svezaka romana Waltera Scotta. Knjige smo spremili u ruksak i radosna srca odjahali u novu pustolovinu.[60]

57 Rose, *The Intellectual Life,* 373, accessed October 1, 2016, http://www.open.ac.uk/Arts/reading/UK/record_details.php?id=5029.

58 The memoir was first published during his lifetime in 1894 and then only again in 2002. It covers a broad period from the beginning of his schooling until the time he engaged politically in the early 1840s. Imbro Tkalac, *Mladenačke uspomene iz Hrvatske* (Karlovac: Gradska knjižnica Ivan Goran Kovačić, Matica hrvatska, 2002).

59 "I only liked reading books so that I swallowed every German, Italian or French book that accidentally came to my hands." Ibid., 117.

60 "[…] my favorite reading of the time was "The History of Unusual Research Trips" in four volumes.

As we could see, diaries and memoirs provide important evidence about reading as an everyday practice that often cannot be recovered from other sources.[61] However, these sources have some research limits. First of all, not all of them contain references associated with reading and books, and those that do do not provide the same level of details about the author's reading habits.[62] Second, to commit someone to writing a diary often depended on time and resources (paper and pen), a very important fact when thinking about the working classes in history.[63] In addition, autobiographies and memoirs are not that common among anonymous persons and were more often written by those who enjoyed fame in their lifetime.[64] Concerning diaries in particular, it has to be said that many of them include what literary historians call the "paradox of desire to change life through the text" and that diarists often write when in a bad mood, which usually results in a "negative selection of events and experiences recorded, possible fictionalisation of the author's self, and the fact that diary text is always a selection providing insight into fragments of the author's life."[65] As Kate Flint has claimed, autobiographies and memoirs are forms of self-fashioning and involve the selection and arrangement of events,[66] although it is also true for sources such as letters.[67] As a corollary of that, sometimes authors did not record all that they had read, for instance, newspapers read on a daily basis or low literature they had read and enjoyed but they neglected to mention because they were ashamed.[68] Or, they may claim to read books they did not, wishing to give the impression of being learned persons. Even if they were honest, the passage of

[…] my brother took several volumes of Walter Scott's novels from the library of the Count Đuro Drašković. We put books in a backpack and joyfully rode to a new adventure." Ibid., 97.

61 Colclough, "Readers: Books and Biography," 53.

62 "History of Reading Tutorial 1. Finding evidence of reading in the past. 2.1 Diaries, journals, autobiographies and memoirs – the anecdotal sources," accessed October 19, 2016, http://www.open.edu/openlearn/history-the-arts/culture/literature-and-creative-writing/history-reading-tutorial-1-finding-evidence-reading-the-past/content-section-2.1.

63 Ibid.

64 There are, however, some exceptions. Already mentioned Rose's *The Intellectual Life of the British Working Classes* has been based mainly on the memoirs of the working class people.

65 Marija Ott Franolić, "O Dnevniku Dragojle Jarnević, o dvjestotoj obljetnici rođenja," *Hrvatska revija* 3, 12 (2012): 51, accessed March 15, 2016, http://www.matica.hr/media/uploads/hr/2012/hr-2012-3.pdf.

66 Flint, *The Woman Reader,* 187.

67 Colclough, "Readers: Books and Biography," 60.

68 Jackson, "Approaches," 1049.

time between the event and writing about it may result in forgetting some works, authors or reading experiences.[69] It is for all these reasons that the use of these sources requires some caution.

Proceedings of the Inquisition and police records

Specifying in his article *Arriving at a History of Reading* the most often used historical records of reading in the past, Jonathan Rose has stated that the proceedings of the Inquisition and police records are the most helpful sources for historians of reading since "they asked precisely the questions we want to ask: What did you read it, and how did you read it? Where did you obtain the book? Did you discuss it with anyone? How did you interpret this particular passage?."[70] The most famous example is an excellent book by Carlo Ginzburg, *The Cheese and the Worms* (1980), a book based on the trial records of the 16th century Italian miller Domenico Scandella, also known as Menocchio. Menocchio was brought to trial during the Inquisition because of his beliefs that were opposed to the Church's doctrine and teachings. In his trial testimony Menocchio made references to more than a dozen books which he interpreted in his own way, blending the teachings of the Catholic Church and his rural experience to construct his own views of religion and his beliefs,[71] as shown in the following passage of the book:

> *In the first interrogation, we recall, Menocchio had insisted that he didn't believe in the immaculate conception of Mary by virtue of the Holy Spirit "because many men have been born into the world, but none of a virgin woman," and also because in a book called 'Fioretto della Bibbia' he had read "that St. Joseph called our Lord Jesus Christ his son*.[72]

69 "History of Reading Tutorial 1. Finding evidence of reading in the past. 2.1 Diaries," accessed October 19, 2016, http://www.open.edu/openlearn/history-the-arts/culture/literature-and-creative-writing/history-reading-tutorial-1-finding-evidence-reading-the-past/content-section-2.1.

70 Rose, "Arriving at a History of Reading," 36.

71 His philosophical teachings earned him the title of a heresiarch and Menocchio was eventually burned at the stake in 1599, at the age of 67.

72 Ginzburg, *The Cheese and the Worms,* 36.

The proceedings of the Inquisition also reveal how Menocchio acquired books:

> *It is true that I once read a book lent to me by our chaplain, Father Andrea da Maren, who now lives in Monte Real. That book was entitled Il Cavalier Zuanne de Mandavilla; I believe it was French, printed in the vernacular Italian language. It may be five or six years ago that he lent it to me, but I returned it to him at least two years ago. And this book dealt with a journey to Jerusalem, and certain differences between the Greeks and the pope; and it also dealt with the great Khan, with the city of Babylon, with Prester John, and Jerusalem, and also with many islands […].*[73]

Criminal court records are very similar sources. Some of them offer a series of important evidence of reading – the socio-economic group and occupation of the reader, the time and the place where the reading occurred, whether the reading was practised in the company and aloud or alone and silently, and so on. For the purpose of illustration, the account of the criminal trial that took place at the Old Bailey, London's central criminal court, has been selected.[74] It is the trial of James Greenacre and Sarah Gale, accused of the murder of a certain Hannah Brown. On 1st January 1837 Henry Wignal was one of the witnesses. Reading was an activity that he remembered doing on the day of the crime:

> *Henry Wignal: 'the 1st of January was Sunday—on the 1st of January I was in my own room, upstairs, reading the newspaper—he was in Mrs. Gale's apartment—I was reading the newspaper that morning to my wife, and a friend of mine, and my sister—I read of the trunk of a body being found in the Edgeware-road. Q. Did you read loud enough for the prisoners to hear you? A. They must have heard me read it—they*

73 Ibid., 46.
74 Accounts of various trials, almost 200,000 of them, were regularly published from 1678 until 1913.

had the door of their room ajar, and must have heard me—they stayed there all day, and slept there all night—they did not say a word about this trunk that was found.' [75]

This short quotation reveals plenty of evidence on reading, namely, what Henry Wignal read (the newspaper), who he read with (his wife, sister and a friend, while the accused may have been listening from the room next door), where (at home, in his own room), when (in the morning), and how he read (in company, reading aloud the newspaper to his wife, sister and a friend).

Such kind of sources can be certainly useful, but they nevertheless have severe research limitations. First, the court records only indicate the reading habits of a small minority, usually of a damaged party or pawnbrokers who most often appeared at the court as witnesses since they seem to have read carefully the crime news in newspapers to avoid accusations of being receivers of stolen goods. Others, who possibly read the crime news but did not go to court even though they had witnessed the crime, had seen the stolen goods or knew the accused, are not included.[76] Furthermore, each selected case cannot tell us much if we do not try to find some reading patterns across similar court records, for instance, if we do not try to answer questions such as who read newspapers in general, how and why.[77]

Marginalia

As Ian Jackson has suggested, marginalia are perhaps "the most direct source of evidence for a reader's immediate reaction to a text,"[78] providing, as Anthony Grafton has emphasized, "the scent of human flesh and blood," as the best historical evidence always does.[79] It is for that reason that we

75 Old Bailey Proceedings Online. "Trial of James Greenacre and Sarah Gale 3 April 1837 (t18370403-917)," accessed October 2, 2016, http://www.open.ac.uk/Arts/reading/UK/record_details.php?id=24954.

76 "History of reading tutorial 1. Finding evidence of reading in the past. 2.2 Inquisitorial sources – glimpses on common practices?," accessed October 2, 2016, http://www.open.edu/openlearn/history-the-arts/culture/literature-and-creative-writing/history-reading-tutorial-1-finding-evidence-reading-the-past/content-section-2.2

77 Ibid.

78 Jackson, "Approaches," 1046.

79 Anthony Grafton, "Is the History of Reading a Marginal Enterprise? Guillaume Budé and his Books,"

can consider marginalia quite a reliable source. Marginalia shed light on the mental, emotional and intellectual process of reading, even changing historical patterns of reading practice.[80] Marginalia may be of various kinds – from very simple marginal notes such as exclamation marks, the hand-with-pointing-finger symbols (the so called "manicule"), simple vertical lines that assist quick reference and serve to locate a particular sentence or paragraph, various drawings, corrections of printers' errors, to corrections of the content itself in the form of comments to glosses or critiques. Throughout history, marginalia was a widespread practice, perhaps more than today. For the purpose of illustration two cases of Thomas Carlyle's marginalia have been selected – his "manicule" in *Journal kept during a visit to Germany in 1799-1800* by Melisina Trench (Figure 1)[81] and his comments in the margins of *Introductory lessons on modern history* by Thomas Arnold: *A most conciliatory candid style of writing (which means here of thinking also and of living): that is the grand merit of the Book* (Figure 2).[82] Commenting on the author's style of writing, Carlyle entered with him into a sort of dialogue, confirming that he had read the book carefully. Occasionally, more than one reader left a mark in some book. Such notes reveal evidence of reading as a social process.[83] If we accumulate a large database of marginalia and we know to how to interpret it, we can unquestionably frame useful generalisations about historical readers as Heather J. Jackson did, for instance, in her book *Marginalia: Readers Writing in Books* (2001). However, many historians have been doubtful

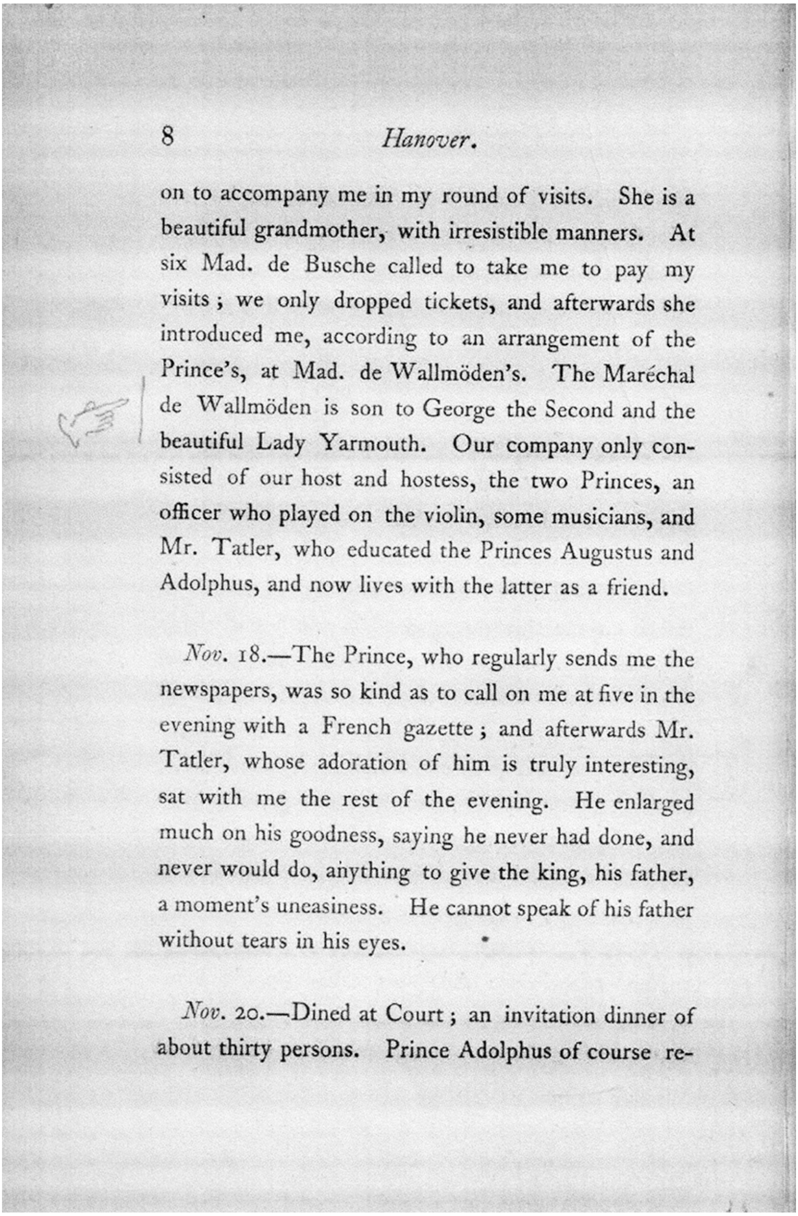
Papers of the Bibliographical Society of America 91 (1997): 157.

80 "Marginalia: Six Personal Libraries," accessed April 19, 2017, http://ocp.hul.harvard.edu/reading/marginalia.html.

81 Melesina Chenevix St. George Trench, *Journal kept during a visit to Germany in 1799, 1800* (London: 1861), 8, accessed October 5, 2016, https://iiif.lib.harvard.edu/manifests/view/drs:13911307$20i.

82 Thomas Arnold, *Introductory lectures on modern history: delivered in Lent term, MDCCCXLII, with the inaugural lecture delivered in December, MDCCCXLI* (Oxford: J. H. Parker; London: B. Fellowes, 1842), 357, accessed October 5, 2016, https://iiif.lib.harvard.edu/manifests/view/drs:14002610$369i.

83 Such is the case with Vernon Lee's copy of Rudolf Goldscheid's *Höherentwicklung und Menschenökonomie: grundlegung der sozialbiologie* which she lent to her friend, the Italian pragmatist philosopher Mario Calderoni. Calderoni returned the book with his own remarks, some commenting on Lee's first notes, which encouraged Lee to re-read the book, and leaves some additional marginal marks, completing in such a way a literary conversation. "History of reading tutorial 3. Famous writers and their reading - Elizabeth Barrett Browning and Vernon Lee," accessed October 3, 2016, http://www.open.edu/openlearn/history-the-arts/culture/literature-and-creative-writing/history-reading-tutorial-3-famous-writers-and-their-reading-elizabeth-barrett-browning-and-vernon/content-section-3.



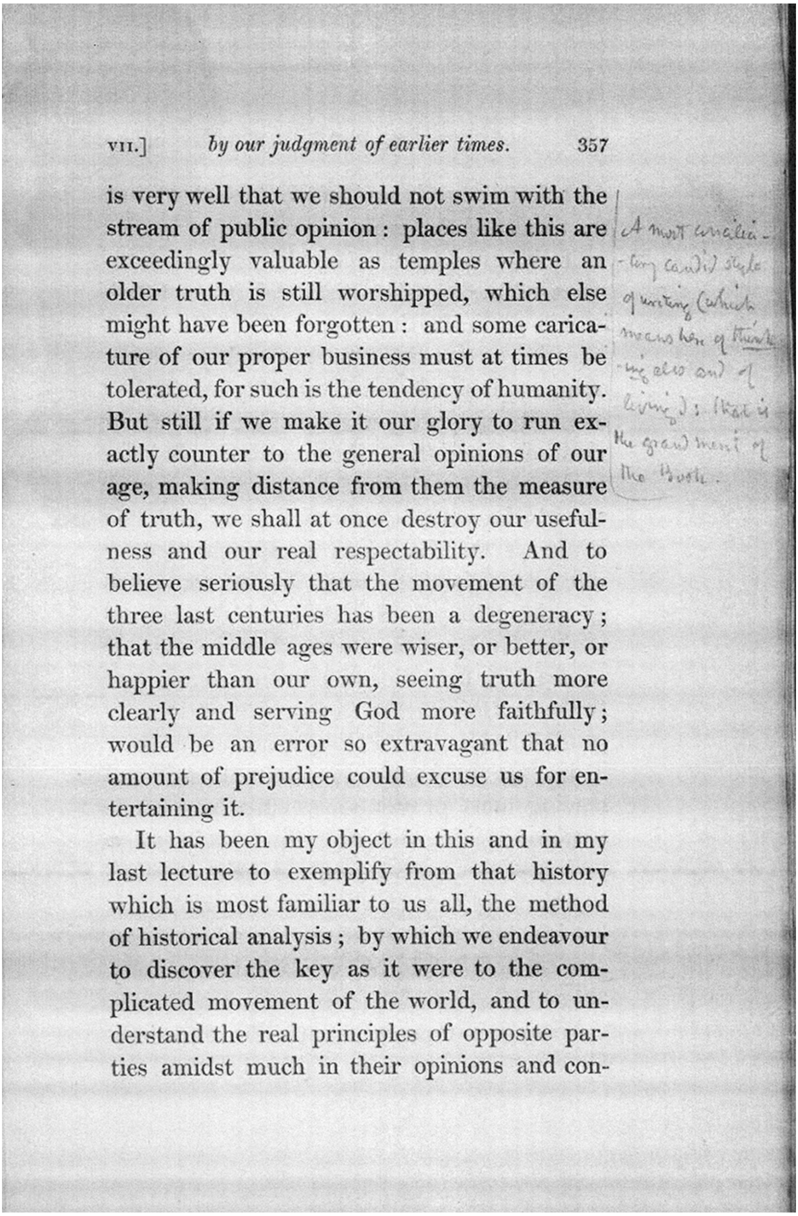
8 *Hanover.*

on to accompany me in my round of visits. She is a beautiful grandmother, with irresistible manners. At six Mad. de Busche called to take me to pay my visits; we only dropped tickets, and afterwards she introduced me, according to an arrangement of the Prince's, at Mad. de Wallmöden's. The Maréchal de Wallmöden is son to George the Second and the beautiful Lady Yarmouth. Our company only consisted of our host and hostess, the two Princes, an officer who played on the violin, some musicians, and Mr. Tatler, who educated the Princes Augustus and Adolphus, and now lives with the latter as a friend.

Nov. 18.—The Prince, who regularly sends me the newspapers, was so kind as to call on me at five in the evening with a French gazette; and afterwards Mr. Tatler, whose adoration of him is truly interesting, sat with me the rest of the evening. He enlarged much on his goodness, saying he never had done, and never would do, anything to give the king, his father, a moment's uneasiness. He cannot speak of his father without tears in his eyes.

Nov. 20.—Dined at Court; an invitation dinner of about thirty persons. Prince Adolphus of course re-

Figure 1 Thomas Carlyle's marginalia: his „manicule" in *Journal kept during a visit to Germany in 1799-1800* by Melisina Trench



VII.] *by our judgment of earlier times.* 357

is very well that we should not swim with the stream of public opinion: places like this are exceedingly valuable as temples where an older truth is still worshipped, which else might have been forgotten: and some caricature of our proper business must at times be tolerated, for such is the tendency of humanity. But still if we make it our glory to run exactly counter to the general opinions of our age, making distance from them the measure of truth, we shall at once destroy our usefulness and our real respectability. And to believe seriously that the movement of the three last centuries has been a degeneracy; that the middle ages were wiser, or better, or happier than our own, seeing truth more clearly and serving God more faithfully; would be an error so extravagant that no amount of prejudice could excuse us for entertaining it.

It has been my object in this and in my last lecture to exemplify from that history which is most familiar to us all, the method of historical analysis; by which we endeavour to discover the key as it were to the complicated movement of the world, and to understand the real principles of opposite parties amidst much in their opinions and con-

A most unvacilla-ting candid style of writing (which means here of think-ing also and of living): that is the grand merit of the Book.

FIGURE 2 Thomas Carlyle's marginalia: his comments in the margins of *Introductory lessons on modern history* by Thomas Arnold about using marginalia to reconstruct reading practices, questioning whether annotations give any useful insight into the mental process of reading. They have said that readers annotated books only occasionally and that such marginal notes are too scattered or too short to tell us much about those who wrote them down.[84] They have claimed that anyone making notes in the margin of a book is restrained by the amount of room available at the edge of the text.[85] They have also said that those who left their remarks and comments were well aware that their notes are likely to be read and interpreted by someone else, their friends or family members, which could imply that some readers did not always openly express their thoughts and opinions. According to this, marginalia was in some sense public.[86] Some, however, have claimed that "marginalia is not explicitly intended for publication, and therefore the opinions expressed might be much more direct and unguarded than usual."[87] Furthermore, they have argued that we should not assume that just because a book is unmarked, it is unread,[88] and that the absence of marginalia may be as significant as their presence.[89] Yet, as Ian Jackson has warned, "the fact that some readers chose to document their reading is itself worth noting as evidence for how they saw reading."[90]

Commonplace books

Commonplace books can also serve as a direct evidence of a reader's reaction to a text. The era of the commonplace book probably began in the 12th century and reached its peak in the late Renaissance, when a paper was still scarce and expensive and many could not afford to buy books. With the early 20th century, the commonplace book disappeared. A commonplace book is a sort of scrapbook that contains items of every kind: recipes, tables of weights and measures, letters, poems, proverbs, prayers,

84 Jackson, "Approaches," 1046.
85 Colclough, "Readers: Books and Biography," 54.
86 "History of reading tutorial 3. Famous writers."
87 Ibid.
88 Ibid.
89 Howard, "Secret Lives of Readers."
90 Jackson, "Approaches," 1049.

and the like, often organised under topical or thematic headings, in order to serve as a memory aid to its creator. However, it also often contains quotes and excerpts from literary and other works which its creator considered important, useful or interesting for some reason. Such excerpts were sometimes supplemented with creator's comments and critical evaluations, as shown in the following two extracts, dated to the 1920s, and taken from a commonplace book of a 20th century English novelist and a short story writer Edward Morgan Forster:

> *Clarissa Harlowe. Have read 1/3 of [...] Certainly I am bored, but the book is not tedious through repetition -- the endless variety and modulations are not in themselves interesting enough [...] Granted her premises about copulation and relations, Cl. deduces with delicacy and truth. Within her conventions, she is sound. She is tragic and charming. Rich[ardson]. had a tragic mind [quotes passages] [...] 'The book raises the question of subject-matter. Within its limits it is great. But what limits!* [91]

> *Under heading 'Peer Gynt': 'The main ideas of this great and bitter poem become clearer at this last hasty reading (3-1-28) though my former criticism stands [i.e. that it is a poem pretending to be a sermon [...]'.* [92]

The first extract, written at some point in 1926, explains Forster's impression with Samuel Richardson's *Clarissa*, while the second one, dating back to 1928, refers to Henrik Ibsen's poem. Both extracts testify of the way in which Forster interacted with the literature he had read. It is for that reason that we can consider commonplace books, just like marginalia, quite reliable sources.

91 Edward Morgan Forster, Philip Gardner, ed., *Commonplace Book* (London: Scolar, 1985), 11-12, accessed October 3, 2016, http://www.open.ac.uk/Arts/reading/UK/record_details.php?id=20745

92 Ibid., 35, accessed October 3, 2016, http://www.open.ac.uk/Arts/reading/UK/record_details.php?id=20833.

Correspondence

Correspondence is an equally significant source for the history of reading. An extract from the letter written by Jane Austen to her niece Anna on 17th August 1814, selected for the purpose of illustration, gives us an answer to a series of questions Darnton has considered important to historians of reading: who (Jane Austen) read what (unpublished story by Anna Austen that Jane Austen received the day before), when (in the morning), how (aloud and in company, which suggests the personal pronoun "we"), the opinion about the manuscript ("we are all very much amused, & like the work quite as well as ever"):

> *We have just finished the 1st of the 3 Books I had the pleasure of receiving yesterday; I read it aloud - & we are all very much amused, & like the work quite as well as ever. - I depend on getting through another book before dinner, but there is really a great deal of respectable reading in your 48 pages. I was an hour about it. - I have no doubt that 6 will make a very good sized volume.*[93]

Another example is the letter written in 1830 by Charles Darwin to his second cousin William Darwin Fox in which he suggests he read Samuel Richardson's *Clarissa Harlowe,* and expresses how much the novel impressed him:

> *I performed one Herculean task, having nearly finished Clarissa Harlowe, the most glorious novel ever written, & I advise you begin it as soon as you can.*[94]

Letters like these two have significant historical value as records of his-

93 Jane Austen, *Jane Austen's Letters, ed.* Deirdre Le Faye (Oxford, New York: Oxford University Press, 1995), 268. (Letter from Jane Austen to Anna Austen, August 17, 1814), accessed October 5, 2016, http://www.open.ac.uk/Arts/reading/UK/record_details.php?id=11751.

94 Darwin Correspondence Project. "Letter from Charles Darwin to William Darwin Fox, Cambridge, 1830," accessed May 1, 2017, http://www.open.ac.uk/Arts/reading/UK/record_details.php?id=16469.

torical readers' experiences and showing that reading was closely intersected with their daily lives. Some scholars, however, have claimed that letters, just like autobiographies and memoirs, involve the selection and arrangements of events, and thus it is important to exercise a certain amount of caution when using them.[95]

Fan letters

Fan letters are often overlooked as sources for the history of reading. If the authors did save them, fan letters provide evidence of immediate responses to a certain text. As Clarence Kerr has suggested, "Whereas the evidence found in diaries and letters is fragmentary, collections of letters from readers provide a concentrated mass of responses to a corpus of works. Both the reading of those works and the writing of the letters were intense, emotional experiences, which reveal an honesty of emotional interaction rarely found in the printed documents."[96] Some authors received plenty of letters from readers. 18th century philosopher and writer Jean-Jacques Rousseau was one of them. Having published his famous *La Nouvelle Heloise,* the greatest bestseller of the 18th century, he began receiving a number of letters from readers who were explaining how much the novel impressed them. One claimed that reading cured him of a cold, another that reading made him mad because of the incredible emotional engagement, while some believed that the characters were not fictional but real,[97] as shown in the following two extracts. The first one was written by Mme Du Verger on 22nd January 1762, while the second one was written by the Protestant minister Paul-Claude Moultou on 7th March 1761:

> *Many people who have read your book and discussed it with me assert that it is only a clever fabrication on your part. I can't believe that. If so, how could a mistaken reading have produced sensations like the ones I felt when I read the book?*

95 Colclough, "Readers: Books and Biography," 60.
96 Clarence Kerr, *Authors and Audiences*: *Popular Canadian Fiction in the Early Twentieth Century* (Kingston: McGill-Queens University Press, 2000), 154.
97 Darnton, "First Steps," 156.

I implore you, Monsieur, tell me: did Julie really live? Is Saint-Preux still alive? What country on this earth does he inhabit? Claire, sweet Claire, did she follow her dear friend to the grave? M. de Wolmar, milord Edouard, all those persons, are they only imaginary as some want to convince me? If that be the case, what kind of a world do we inhabit, in which virtue is but an idea? Happy mortal, perhaps you alone know it and practice it. […] I would not speak to you so freely, if your way of thinking were not already known to me by your works. Besides, I should say straight away that if you were determined to make conquests, mine would not flatter you. [98]

No, Monsieur, I can no longer keep quiet. You have overwhelmed my soul. It is full to bursting, and it must share its torment with you Oh Julie! Oh Saint-Preux! Oh Claire! Oh Edouard! What planet do your souls inhabit, and how can I unite mine with yours? They are the offspring of your heart, Monsieur, your mind alone could not have made them as they are. Open that heart to me so that I can contemplate the living models of the characters whose virtues made me weep such sweet tears.[99]

Writing letters to authors was at the time a very common practice so Rousseau was certainly not the only celebrity author who received them. Letters were received by Voltaire, Zola, Balzac, and many others,[100] including Samuel Richardson, an 18th-century English writer and printer, best known for his three epistolary novels: *Pamela: Or, Virtue Rewarded* (1740), *Clarissa: Or the History of a Young Lady* (1748) and *The History of Sir Charles Grandison* (1753). Having read his *Clarissa*, an English critic and poet Thomas Edwards wrote a letter to Richardson, dated to 15th January 1755:

98 Robert Darnton, "Readers Respond to Rousseau: The Fabrication of Romantic Sensitivity," in *The Great Cat Massacre and other Episodes in French Cultural History* (London: Penguin, 1985), 245.

99 Ibid.

100 Darnton, "First Steps," 156.

Your works are an inexhaustible fund of entertainment and instruction. I have been this day weeping over the seventh volume of Clarissa, as if I had attended her dying bed, and assisted at her funeral procession. O may my latter end be like hers![101]

All of these letters show what reading meant to readers in the past. As Darnton has stated, "reading and living, construing texts and making sense of life, were much more closely related in the early modern period than they are today."[102] However, the problem is that such sources represent just the circle of the most enthusiastic readers, those who interacted most passionately and most emotionally with the text.[103] A similar problem is with peer reviews since they were usually written by a narrow circle of experts in the appropriate field, that is, by qualified professionals.[104]

Letters to newspaper editors

In the course of the 19th century, it was a very common thing for readers to send letters to editors of newspaper(s) to which they had subscribed. Studying these letters, particularly those without editorial interventions, helps us to understand how readers actually used newspapers and how they made sense of what they read. Critics, however, have claimed that such letters seem an unreliable source since they are often edited and sometimes even written by editors.[105] The most famous among a few studies dedicated to the topic is perhaps David Nord's *Communities of Journalism: A History of American Newspapers and Their Readers* (2001).[106] Nord

101 Anna Laetitia Barbauld, ed., *Correspondence of Samuel Richardson [...] Selected from the original manuscripts, bequeathed by him to his family* (London, 1804), vol. 3, 111-12, accessed October 3, 2016, http://www.open.ac.uk/Arts/reading/UK/record_details.php?id=28376.

102 Darnton, „First Steps," 157.

103 Kerr, *Authors and Audiences*, 154.

104 Peer reviews appeared in its modern connotation only in the late 20th century. Aileen Fyfe, "Peer review: not as old as you might think," *Times Higher Education*, June 25, 2015, accessed February 5, 2018, https://www.timeshighereducation.com/features/peer-review-not-old-you-might-think.

105 Rose, "Arriving at a History of Reading," 36.

106 David Paul Nord, *Communities of Journalism: A History of American Newspapers and Their Readers* (Urbana: University of Illinois Press, 2001).

discovered and carefully investigated an archive of unpublished readers' letters sent to the *Chicago Tribune* and *Chicago Herald* between 1912 and 1917. These were not letters offered for publication but personal letters sent to a Chicago newspaper editor named James Keeley by various readers complaining about something in the paper. What is fascinating about these letters is that they perfectly show how readers could read the same news stories in completely different ways. Especially revealing are readers' reactions to coverage of the First World War – while some considered the *Chicago Tribune* pro-German newspaper, some others considered it pro-Allied.[107] Readers' letters about religion are similar. While some letter writers criticised the editor for being anti-Catholic, others criticised him for being pro-Catholic.[108] Nord has argued that readers constructed their own meanings as they read, but this process was often guided by organised cultural and political power. In other words, readers were taught how to read newspapers.[109]

Sociological surveys of reading

Most of the studies in the field of history of reading have tended to look at famous people.[110] However, if we want to study the reading habits and reading experiences of the ordinary people, we should choose sociological surveys of reading.[111] An example selected for the purpose of illustration is the survey conducted in Croatia in 1923 by Dragutin Kniewald, a professor at the Faculty of Theology. The aim of his research was to identify reading habits and experiences of young Catholic girls. The questions that were being put were: What kinds of books do you like reading most? Of what subjects and genre? What do you like most in books you read? What do you think are the benefits of reading? Why are you reading? Do you

107 Rose, "Arriving at a History of Reading," 38.

108 Nord, *Communities,* 92; David Paul Nord, "Reading the Newspaper: Strategies and Politics of Reader Response, Chicago, 1912-1917," *Journal of Communication* 45, 3 (1995): 66.

109 Ibid.

110 Of course, there are some exceptions such as already mentioned Rose's *The Intellectual Life of the British Working Classes* or Ginzburg's study *The Cheese and the Worms*, based on the trial records of the 16th century Italian miller Domenico Scandella, better known as Menocchio.

111 Sociological surveys of reading go back in the latter part of the 18th century. Perhaps the oldest one is the one conducted in Scotland in the 1790s. Rose, "Arriving at a History of Reading," 36.

think that some books can be harmful? Have you read such books? What do you and your female friends think about reading novels? and so on. The results, published in a scientific periodical in 1925 under the title *Psihologija omladinske lektire* (The Psychology of Compulsory Reading for the Youth) reveal the reading habits of more than two hundred girls who answered the questionnaire. For instance, the majority of them liked reading the belles-lettres. In books, they sought knowledge and amusement. They did believe that some books could be harmful, particularly novels because they teach them immorality, excite their imagination, stimulate their passion, and so on.[112] The results of this study should be used, however, with some caution. It is a question whether the girls were answering honestly or they just responded according to what was expected of them.

However, the working people in London, street-entertainers, prostitutes, thieves and vagabonds had probably no reason to be dishonest while being interviewed in the 1840s by a 19th century English social researcher and journalist Henry Mayhew. Mayhew was interested in their daily routine, which also included questions on their reading habits (what they read or used to read). Interviewing a boy of 16, a vagabond and an inmate of a casual ward of a London workhouse, Mayhew found out not only what he read but also how he obtained books and what was his general attitude towards books and reading:

> *My father had no books but religious books; they were all of a religious turn, and what people might think dull. But they never made me dull. I read Wesley's and Watt's hymns, and religious magazines of different connexions. I had a natural inclination for the sea, and would like to get to it now. I've read a good deal about it since -Clark's 'Lives of Pirates', 'Tales of Shipwrecks', and other things in penny numbers (Clark's I got out of the library though). I was what people called a deep boy for a book; and am still. Whenever I had a penny, after I got a bellyful of victuals, it went for a book, but I hav-*

112 Dragutin Kniewald, "Psihologija omladinske lektire," *Bogoslovska smotra* 12, 3 (1925): 345-360.

> *en't bought many lately. I did buy one yesterday -the 'Family Herald' -one I often read when I can get it. There's good reading in it; it elevates your mind -anybody that has a mind for studying. It has good tales in it... I've read "Windsor Castle" and "The Tower", -they're by the same man. I Liked "Windsor Castle" and all about Henry VIII and Herne and Hunter. It's a book that's connected with history, and that's a good thing. I like adventurous tales.*[113]

Therefore, the results derived from sociological surveys such as these two selected for the purpose of illustration can be more or less reliable, depending on the type of questions being asked, respondents themselves and the overall context of surveys.

Oral history

If we want to investigate readers of the fairly recent past, we can choose to use oral history techniques. Oral historians "document the past by preserving insights not found in printed sources."[114] A brilliant example is a book by Martin Lyons and Lucy Taska, *Australian Readers Remember: An Oral History of Reading 1890-1930* (1992), which is based on an investigation into the reading habits of sixty Australians and their parents, who were asked to recall and comment on what they were reading in the late nineteenth and early twentieth centuries. A book offers an account of readers' memories of various genres – novels, poetry, children's books, and newspapers. It examines how the interviewees obtained access to books. It also analyses the status of reading, attitudes towards books, as well as the myths and prejudices surrounding the act of reading. However, the oral history method should also be used with caution. Just as in the case

113 Henry Mayhew, *London Labour and the London Poor* (London: Griffin, Bohn, and Company, Stationers' Hall Court, 1861), 3, 388-389 (Henry Mayhew interviews a boy of 16, a vagrant and inmate of a casual ward of a London workhouse, London, between 1 Jan 1840 and 31 Dec 1859), accessed October 7, 2016, http://www.open.ac.uk/Arts/reading/UK/record_details.php?id=1295.

114 David A. Russell, "Oral History Methodology: The Art of Interviewing," *Oral History Program,* 1, accessed April 25, 2017, http://www.history.ucsb.edu/faculty/marcuse/projects/oralhistory/199xDRussell UCSBOralHistoryWorkshop.pdf.

of diaries and memoirs, the passage of time may result in forgetting some works, authors or reading experiences.[115] In addition, the interviewees may claim to read books which they actually did not, wishing to give the impression of being cultured persons, or may neglect to mention low literature that they read, for instance, because they were ashamed of that.[116]

Visual representations of reading: paintings of people reading

At first sight, paintings of people reading may appear to be a questionable source. Is the motif of people reading based on real life situations? Before we answer that question, we need to know that from the earliest times symbols have been very important to artists, and a book has been a symbol, too. In medieval paintings, a book in the hands of evangelists and apostles often represents the New Testament, in the hands of the founder of a religious order it represents the rules of that order. A book on the paintings of the Blessed Virgin Mary usually symbolises the Book of Wisdom or the Annunciation. If a book is in the hand of the Holy Child or in Mary's lap, it is a clear allusion to the Holy Scriptures. A book with the letters alpha (A) and omega (Ω) symbolizes the Christ and so on.[117] In the early modern period, a book symbolises the profession of the one who holds it in the hand, as well as his or her wisdom, knowledge and education. Other details in paintings are important, too. For instance, when a reader in paintings has fingers on several pages at once, it enabled historians of reading to understand why the codex superseded the scroll in the early Christian centuries – while scrolls only permitted linear reading, codices allowed the reader to go back and forth.[118] Thus, as much as details in paintings are important to art historians, they are important to historians of reading also.

Equally important in paintings is the context, atmosphere and environ-

115 "History of Reading Tutorial 1. Finding evidence of reading in the past." 2.1 Diaries," accessed October 19, 2016, http://www.open.edu/openlearn/history-the-arts/culture/literature-and-creative-writing/history-reading-tutorial-1-finding-evidence-reading-the-past/content-section-2.1.

116 Jackson, "Approaches," 1049.

117 James Hall, *Rječnik tema i simbola u umjetnosti* (Zagreb: August Cesarec, 1991), 66.

118 Rose, "Arriving at a history of reading," 37.

ment in which reading took place. In the Middle Ages, reading was not associated with comfort at all – readers in the university libraries read standing up, protected against the cold by cloaks and hats, while books were put in chains.[119] In the early modern period, particularly from the 18th century onwards, readers were portrayed in armchairs in comfortable and relaxed positions such as Jean-Honoré Fragonard's *A Young Girl Reading,* 1773–1776, or Claude Monet's *A Woman Reading*, 1872.[120] The attitude towards reading obviously became significantly different. Books were read not only for the purpose of spiritual growth or education but also for the purpose of amusement.[121] In the 19th century, with the emergence of newspapers and increased hunger for information, readers were often portrayed reading collectively and reading aloud.[122] For all of these reasons, paintings should not be completely neglected as the sources for the history of reading.

Visual representations of reading: documentary photography

Paintings, however, do not have documentary value. The act of reading, as it really was throughout history, can be demonstrated by documentary photography such as photographs made by a Hungarian-born photographer André Kertész. Kertész captured people reading in public social settings in many parts of the world over a long period of more than fifty years, from 1915 until the 1970s (for instance, his photograph *Boy reading newspaper,* New York, 1944,[123] or *Esztergom,* Hungary, 1915).[124] A collection of these photographs, simply called *On Reading,* was published

119 Darnton, "First Steps," 167.

120 Ibid.

121 Ibid.

122 German History in Documents and Images (GHDI). "Forging an Empire: Bismarckian Germany (1866-1890). Images – Culture. Wilhelm Leibl. Peasants in Conversation / The Village Politicians [Bauern im Gespräch / Die Dorfpolitiker] (1877)," accessed April 20, 2017, http://germanhistorydocs.ghi-dc.org/sub_image.cfm?image_id=1314.

123 Blake Morrison, „The Power of Reading," *The Guardian,* July 23, 2009, accessed October 15, 2016, https://www.theguardian.com/artanddesign/2009/jul/23/andre-kertesz-photography-reading

124 Florence Waters, "Andre Kertesz at the Photographer's Gallery," review of *On Reading,* by André Kertész, *The Telegraph,* July 22, 2009, http://www.telegraph.co.uk/culture/photography/5886226/Andre-Kertesz-at-the-Photographers-Gallery-review.html.

in 1971 and then republished in 2008.[125] The example of a Haitian painter and photographer Gérard Blancourt is similar. Some of his photographs also depict the atmosphere and social settings in which reading took place.[126] Most of these photographs, both those made by Kertész and those made by Blancourt, answer the questions of who, when, where, how, and sometimes even why someone reads. They can also show the intensity of the reading experience and absorption of a person with a book through the posture of the body, gestures and expressions.[127] However, they only rarely answer the question of what someone reads.

Conclusion

To conclude, most of these sources contain evidence that can tell us what particular readers read, often where, when and how they read, or how they obtained what they read, but also sometimes what reading meant to them personally and how they responded to what they read. However, all of these sources are fragmentary, imperfect and only to some extent reliable. As mentioned, perhaps the most direct sources of evidence for a reader's immediate reaction to a text are marginalia, commonplace books or fan letters sent to authors. In spite of that, as already explained, these have research limitations. Some sources are confined to a narrow circle of readers: fan letters, for instance, represent the circle of those readers who interacted most passionately and most emotionally with the text, while peer reviews represent the circle of qualified experts in the appropriate field. In addition, memoirs are usually, though not exclusively, written by famous persons, those who have enjoyed fame in their lifetime. Some sources (diaries, memoirs, correspondence or even sociological surveys) may be selective as regards to authors and works being read due to the pas-

125 Sven Birkerts, "Andre Kertesz: On Reading," *Literal: Latin American Voices* 26, accessed October 18, 2016, http://literalmagazine.com/andre-kertesz-on-reading/.

126 Pinterest: the world's catalogue of ideas. "Girls reading books from mobile library in Levallois-Perret, near Paris, c. 1960. Photograph by Gérard Blancourt," accessed April 30, 2017, https://www.pinterest.com/pin/54746951696642190/.

127 Birkets, "Andre Kertesz."

sage of time between the event and writing about it or due to the fact that readers intentionally dropped some authors they had read or/and added others that they had not. Finally, while some sources are good for studying the reading habits and reading experiences of communities of readers (sociological surveys, oral history), some others can serve as sources for studying the reading habits of individual readers (diaries, memoirs, correspondence, etc.).

All this, as Ian Jackson has warned, imposes the question of whether a historical reading experience is retrievable at all.[128] A number of studies centred on the history of reading demonstrate that it can be. However, there are some rules that must be followed. Historians of reading should integrate "understanding of the individual act of reading […] and of the social history of reception – why you bought or borrowed this book, who you are, where and when you are reading this – often aggregated with details of other readers to create a social profile of readership."[129] They should search, however, not only for sources that uncover the diversity of individual acts of reading but also for those that show reading patterns and widely shared reading practices. They should also be aware of the fact that each particular source should also be complemented with other sources because each of them perhaps reveals only one aspect of someone's reading life.[130] Historical readers read a great variety of books for different purposes at different times in their lives, engaged in a diversity of reading practices and selected different reading strategies for different texts. The weaknesses in the sources must balance each other out.[131] As David Paul Nord put it down, writing about historical readership studies, "Like all historians in search of evidence, historians of reading must be clever detectives – or lucky dilettantes."[132] A clever historian of reading knows that even a book's apparent lack of use can be read as evidence. If pages of a book are completely uncut, this certainly tells us something about the owner of the copy. Thus, the history of reading should also in-

128 Jackson, "Approaches," 1044.
129 Finkelstein and McCleery, "Readers and Reading," 118.
130 Colclough, "Readers: Books and Biography," 56.
131 Jackson, "Approaches," 1049.
132 Nord, "Historical Readership Studies," 87.

clude the history of not reading.[133]

Stating that "the history of reading is the history of interpretation,"[134] Jonathan Rose has highlighted that the interpretation of sources is just as important as finding them. As Barbara Hochman has also explained, "Interpreting readers' testimony is as tricky as interpreting literary texts or historical events. [...] individual testimonies of reading always reflect a complex blend of personal motives and cultural norms. [...] the meanings we attach to reading are influenced by multiple factors, including the ways we acquire literacy [...], class, gender, and other kinds of cultural positioning. Our own relation to reading is inextricably entangled with personal and social history; responses of the past are all the more difficult to decode."[135] Thus, a scholar seeking to identify the readers of the past often has to read between the lines.[136] He has to be well aware of "the biographical determinants of class, gender, and geographical location that helped to shape the individual's reading life".[137] He also has to be aware that every act of reading is personal and unique. And yet, as Nord has stated, "stand back and squint a bit, and cultural patterns can be discerned."[138] Just like clever detectives do.

133 Leah Price gives an example of a copy of *Ulysses* kept in the John F. Kennedy Library in Boston, whose previous owner was Ernest Hemingway. A copy was almost completely uncut which implies that was not read at all. Howard, "Secret Lives of Readers."
134 Rose, "Arriving at a History of Reading," 39.
135 Barbara Hochman, "The History of Reading and the Death of the Text," *American Literary History* 21, 4 (2009): 850-851.
136 Howard, "Secret Lives of Readers."
137 Colclough, "Readers: Books and Biography," 59.
138 Nord, "Historical Readership Studies," 95.

References

Aileen Fyfe, "Peer review: not as old as you might think," *Times Higher Education*, June 25, 2015, accessed February 5, 2018, https://www.timeshighereducation.com/features/peer-review-not-old-you-might-think.

Altick, Richard Daniel. *The English Common Reader: A Social History of the Mass Reading Public, 1800-1900*. Chicago: The University of Chicago Press, 1957.

Arnold, Thomas. *Introductory lectures on modern history: delivered in Lent term, MDCCCXLII, with the inaugural lecture delivered in December, MDCCCXLI.* Oxford: J. H. Parker; London: B. Fellowes, 1842. Accessed October 5, 2016. https://iiif.lib.harvard.edu/manifests/view/drs:14002610$369i.

Austen, Jane. *Jane Austen's Letters. Edited by* Deirdre Le Faye. Oxford, New York: Oxford University Press, 1995).

Barbauld, Anna Laetitia, ed. *Correspondence of Samuel Richardson [...] Selected from the original manuscripts, bequeathed by him to his family.* London, 1804. vol. 3. Accessed October 3, 2016. http://www.open.ac.uk/Arts/reading/UK/record_details.php?id=28376.

Birkerts, Sven. "Andre Kertesz: On Reading." *Literal: Latin American Voices* 26. Accessed October 18, 2016. http://literalmagazine.com/andre-kertesz-on-reading/.

Cavallo, Guglielmo, and Roger Chartier, eds. *A History of Reading in the West*. Cambridge, UK: Polity Press, 2003.

Colclough, Stephen. "Readers: Books and Biography." In *A Companion to the History of Book*, edited by Simon Eliot, and Jonathan Rose, 50-62. Oxford: Wiley-Blackwell Publishers, 2007.

Crone, Rosalind, and Shafquat Towheed. *The History of Reading. Volume 3: Methods, Strategies, Tactics*. London: Palgrave Macmillan, 2011.

Cunningham, Bernadette, and Máire Kennedy, eds. *The experience of reading: Irish historical perspectives.* Dublin: Rare Books Group of the Library Association of Ireland, 1999.

Darnton, Robert. “First Steps toward a History of Reading.” In *The Kiss of Lamourette: Reflections in Cultural History,* edited by Robert Darnton, 154-87. New York-London: W. W. Norton, 1990.

Darnton, Robert. “Readers Respond to Rousseau: The Fabrication of Romantic Sensitivity.” In *The Great Cat Massacre and other Episodes in French Cultural History.* 215-256. London: Penguin, 1985.

Darnton, Robert. *The Devil in the Holy Water or the Art of Slander in France from Louis XIV to Napoleon*. Philadelphia: University of Pennsylvania Press, 2010.

Darnton, Robert. *The Forbidden Best-sellers of Revolutionary France*. New York and London: W.W. Norton, 1997.

Darnton, Robert. “What is the history of books?.” *Daedalus* 111, 3 (1982): 65-83.

Darwin Correspondence Project. “Letter from Charles Darwin to William Darwin Fox, Cambridge, 1830.” Accessed May 1, 2017. http://www.open.ac.uk/Arts/reading/UK/record_details.php?id=16469.

Finkelstein, David, and Alistair McCleery. “Readers and Reading.” In *An Introduction to Book History*, edited by David Finkelstein and Alistair McCleery, 101-18. London and New York: Routledge, Taylor and Francis Group, 2013.

Flint, Kate. *The Woman Reader, 1837-1941*. Oxford: Oxford University Press, 1993.

Forster, Edward Morgan, and Philip Gardner, ed. *Commonplace Book*. London: Scolar, 1985.

Franolić, Marija Ott. “O Dnevniku Dragojle Jarnević, o dvjestotoj obljetnici rođenja.“ *Hrvatska revija* 3, 12 (2012): 44-51. Accessed March 15, 2016. http://www.matica.hr/media/uploads/hr/2012/hr-2012-3.pdf.

German History in Documents and Images (GHDI). “Forging an Empire: Bismarckian Germany (1866-1890). Images – Culture. Wilhelm Leibl. Peasants in Conversation / The Village Politicians [Bauern im Gespräch / Die Dorfpolitiker] (1877).” Accessed April 20, 2017. http://germanhistorydocs.ghi-dc.org/sub_image.cfm?image_id=1314.

Ginzburg, Carlo. *The Cheese and the Worms*. Baltimore: *Johns Hopkins University Press,* 1980.

Grafton, Anthony. "Is the History of Reading a Marginal Enterprise? Guillaume Budé and his Books." *Papers of the Bibliographical Society of America* 91 (1997): 139-57.

Hackel, Heidi Brayman. "Practising and Teaching Histories and Theories of the Book." *Pacific Coast Philology* 40, 2 (2005): 3-9.

Hall, James. *Rječnik tema i simbola u umjetnosti*. Zagreb: August Cesarec, 1991.

Halsey, Katie, and W. R. Owens, eds. *The History of Reading: Volume II. Evidence from the British Isles, c. 1750-1950*. London: Palgrave Macmillan, 2011.

"History of Reading Tutorial 1. Finding evidence of reading in the past. Introduction." Accessed October 15, 2016. http://www.open.edu/openlearn/ocw/mod/oucontent/view.php?id=1994&printable=1.

"History of Reading Tutorial 1. Finding evidence of reading in the past. 2.1 Diaries, journals, autobiographies and memoirs – the anecdotal sources." Accessed October 19, 2016. http://www.open.edu/openlearn/history-the-arts/culture/literature-and-creative-writing/history-reading-tutorial-1-finding-evidence-reading-the-past/content-section-2.1.

"History of Reading Tutorial 3. Famous writers and their reading - Elizabeth Barrett Browning and Vernon Lee." Accessed October 3, 2016. http://www.open.edu/openlearn/history-the-arts/culture/literature-and-creative-writing/history-reading-tutorial-3-famous-writers-and-their-reading-elizabeth-barrett-browning-and-vernon/content-section-3.

Hochman, Barbara. "The History of Reading and the Death of the Text." *American Literary History* 21, 4 (2009): 845-858.

Howard, Jennifer. "Secret Lives of Readers." *The Chronicle of Higher Education*, 2012. Accessed February 27, 2017. http://www.chronicle.com/article/Secret-Reading-Lives-Revealed/136261.

Jack, Belinda. *The Woman Reader*. New Haven, CT: Yale University Press, 2012.

Jackson, Heather J. *Marginalia: Readers Writing in Books*. London: Yale University Press, 2001.

Jackson, Heather J. *Romantic Readers: The Evidence of Marginalia*. London: Yale University Press, 2008.

Jackson, Ian. "Approaches to the History of Readers and Reading in Eighteenth-Century Britain." *The Historical Journal* 47, 4 (2004): 1041-54.

Jarnević, Dragojla. *Dnevnik*. Karlovac: Matica hrvatska Karlovac, 2000.

Kerr, Clarence. *Authors and Audiences*: *Popular Canadian Fiction in the Early Twentieth Century.* Kingston: McGill-Queens University Press, 2000.

Kniewald, Dragutin. "Psihologija omladinske lektire." *Bogoslovska smotra* 12, 3 (1925): 345-360.

Lakuš, Jelena. "Thinking like a book historian: searching for the evidence of book ownership." In *Records, Archives and Memory: selected papers from the Conference and School on Records, Archives and Memory Studies University of Zadar, Croatia, May 2013*, edited by Mirna Willer, Mirna, Anne J. Gilliland, Anne and Marijana Tomić, 193-221. Zadar: Sveučilište u Zadru, 2015.

Lakuš, Jelena, and Anita Bajić. "Dnevnik Dragojle Jarnević kao izvor za povijest knjige i čitanja." *Književna smotra: časopis za svjetsku književnost* 46 (2014): 129-43

Lakuš, Jelena, and Anita Bajić. "Interpreting Diaries: History of Reading and the Diary of the Nineteenth-Century Croatian Female Writer Dragojla Jarnević." *Information & Culture* 52, 2 (2017): 163-185.

Lakuš, Jelena, and Jelena Vukadin. "Pretplatničke liste kao izvor podataka za povijest knjige i čitanja: primjer pretplatničkih lista knjiga tiskanih u Dalmaciji u prvoj polovici 19. stoljeća." *Libellarium* 5, 1 (2012): 33-70.

Littau, Karin. *Theories of Reading: Books, Bodies and Bibliomania*. Cambridge: Polity Press, 2006.

Lyons, Martin. *A History of Reading and Writing in the Western World*. New York: Palgrave, 2010.

Lyons, Martin. *Readers and Society in Nineteenth Century France: Workers, Women, Peasants*. New York: Palgrave, 2001.

Lyons, Martin. *Reading Culture and Writing Practices in Nineteenth-Century France*. Toronto, Buffalo and London: University of Toronto Press, 2008.

Lyons, Martin, and Lucy Taska. *Australian Readers Remember: An Oral History of Reading 1890-1930.* Melbourne: Oxford University Press, 1992.

Manguel, Alberto. *A History of Reading*. London: HarperCollins, 1996.
"Marginalia: Six Personal Libraries." Accessed April 19, 2017. http://ocp.hul.harvard.edu/reading/marginalia.html.
Mayhew, Henry. *London Labour and the London Poor*. London: Griffin, Bohn, and Company, Stationers' Hall Court, 1861.
McHenry, Elizabeth. *Forgotten Readers: Recovering the Lost History of African American Literary Societies.* Durham, NC: Duke University Press, 2002.
Morrison, Blake. „The Power of Reading." *The Guardian,* July 23, 2009. Accessed October 15, 2016. https://www.theguardian.com/artanddesign/2009/jul/23/andre-kertesz-photography-reading.
Nord, David Paul. *Communities of Journalism: A History of American Newspapers and Their Readers.* Urbana: University of Illinois Press, 2001.
Nord, David Paul. "Historical Readership Studies: A Methodological and Autobiographical Note." *American Journalism* 33, 1 (2016): 86-97.
Nord, David Paul. "Reading the Newspaper: Strategies and Politics of Reader Response, Chicago, 1912-1917." *Journal of Communication* 45, 3 (1995): 66-93.
Old Bailey Proceedings Online. "Trial of James Greenacre and Sarah Gale 3 Apr 1837, (t18370403-917)." Accessed October 2, 2016. http://www.open.ac.uk/Arts/reading/UK/record_details.php?id=24954.
Orgel, Stephen. *The Reader in the Book: A Study of Spaces and Traces. Oxford:* Oxford University Press, 2015.
Pearson, Jacqueline. *Women's Reading in Britain 1750-1835: A Dangerous Recreation*. Cambridge: Cambridge University Press, 1999.
Pinterest: the world's catalogue of ideas. "Girls reading books from mobile library in Levallois-Perret, near Paris, c. 1960. Photograph by Gérard Blancourt." Accessed April 30, 2017. https://www.pinterest.com/pin/547469516966421 90/.
Price, Leah. "Reading: The State of Discipline." *Book History* 7 (2004): 303-320.
Radway, Janice A. *A Feeling for Books: The Book-of-the-Month Club, Literary Taste and Middle-Class Desire.* Chapel Hill: The University of North Carolina Press, 1997.

Radway, Janice A. *Reading the Romance: Woman, Patriarchy and Popular Literature.* Chapel Hill: University of North Carolina Press, 1984.

Rose, Jonathan. "Arriving at a History of Reading." *Historically Speaking* (2004): 36-39.

Rose, Jonathan. *The Intellectual Life of the British Working Classes.* New Haven: Yale University Press, 2001.

Russell, David A. "Oral History Methodology: The Art of Interviewing." *Oral History Program,* 1-22. Accessed April 25, 2017. http://www.history.ucsb.edu/faculty/marcuse/projects/oralhistory/199xDRussellUCSB-OralHistoryWorkshop.pdf.

"Scottish Readers Remember: Project Overview." Accessed October 1, 2016. http://sapphire.ac.uk/scottish-readers-remember-(ahrc-funded)/.

Sherman, William. *Used Books: Marking Readers in Renaissance England*. Philadelphia: University of Pennsylvania Press, 2008.

St Clair, William. *The Reading Nation in the Romantic Period.* Cambridge: Cambridge University Press, 2004.

"The Reading Experience Database, 1450-1945." Accessed October 1, 2016. http://www.open.ac.uk/Arts/reading/UK/.

Tkalac, Imbro. *Mladenačke uspomene iz Hrvatske*. Karlovac: Gradska knjižnica Ivan Goran Kovačić, Matica hrvatska, 2002.

Towheed, Shafquat, and W. R. Owens, eds. *The History of Reading. Volume I. International Perspectives, c. 1550-1990.* London: Palgrave Macmillan, 2010.

Trench, Melesina Chenevix St. George. *Journal kept during a visit to Germany in 1799, 1800.* London: 1861. Accessed October 5, 2016. https://iiif.lib.harvard.edu/manifests/view/drs:13911307$20i.

Turner, Thomas. *The Diary of Thomas Turner 1754-1765,* edited by David Vaisey. Oxford: Oxford University Press, 1984.

Waters, Florence. "Andre Kertesz at the Photographer's Gallery." Review of *On Reading,* by André Kertész. *The Telegraph,* July 22, 2009. http://www.telegraph.co.uk/culture/photography/5886226/Andre-Kertesz-at-the-Photographers-Gallery-review.html.

"What Middletown Read." Accessed October 1, 2016. http://www.bsu.edu/libraries/wmr/about.php.

DOKAZI O ČITANJU U PROŠLOSTI

Ključne riječi:
povijest knjige, povijest čitanja, dokazi o čitanju, povijesni čitatelj, povijesni izvori

Sažetak

Od početka svog utemeljenja kao znanstvene discipline, povijest čitanja suočila se s problemom pronalaženja reprezentativnih dokaza o čitanju u prošlosti. Izvori koji dokumentiraju čitateljske prakse povijesnih čitatelja često su opskurni, u oskudnom broju, fragmentirani i raštrkani. Ovaj članak bavi se najvažnijima među njima, kako onima koji nude uvid u čitateljske navike pojedinačnih čitatelja, tako i onima koji bilježe čitateljske prakse koje zajednice čitatelja dijele u određenom kulturnom kontekstu, ukazujući na mogućnosti, poteškoće i izazove u njihovu korištenju. Svrha je ovoga rada pokazati da, iako su svi izvori koji se analiziraju nesavršeni i samo u određenoj mjeri pouzdani, oni mogu biti vrlo korisni ako povjesničari čitanja znaju kako ih koristiti i interpretirati.

VI

Libraries and Archives on the International Agenda

INDIGENOUS PEOPLES AND NATIONAL IDENTITY CHALLENGES
TWO CASE STUDIES FROM LIBRARIES AND ARCHIVES

Charles J. Farrugia
National Archives of Malta,
Rabat, Malta

Ana Pervan
International Labour Organization
Library, Geneva, Switzerland

Keywords:
indigenous people, national identity, collective memory

Abstract

Libraries and Archives are continuously struggling to adjust their services to the needs of the community at large. These needs are ever changing. This paper focuses on the changing dynamics in two particular areas - indigenous peoples and national identity. Two case studies from the International Labour Organisation and the National Archives of Malta are discussed. The aim of this study is to bring a focus on how libraries and archives are reacting to these changing dynamics in order to start the debate on how international and national organisations with wide-ranging remits can also focus on sectoral needs and use technology to safeguard and promote such needs.

This discussion paper aims to shed light on how memory institutions are taking initiatives to target specific communities or national needs. The paper in no way pretends to be exhaustive or to present scientific data on user views and take up of the services mentioned. It rather highlights interesting initiatives being taken in two specific institutions aimed at focusing on indigenous peoples, and secondly, at national identity challenges. It is also to be stated at the outset that the focus is only on libraries and archives. Aware of the scarcity of studies in this area, the authors highlight two initiatives, one taken by the International Labour Organization (ILO) and the other from the National Archives of Malta (NAM). The first outlines the creation of a service by ILO aimed at indigenous peoples while the second relates to a national project led by the NAM built around national identity and heritage concepts. While the first is of an international nature, emanates from a legal concept and is applied in a library environment, the second zooms in on national territory and is more conceptual than legal and applied in an archives environment.

For the scope of the first case defining the term indigenous helps to frame the study better. The concept is often understood as referring to those groups, especially protected in international or national legislation, having a set of specific rights based on their historical ties to a particular territory, and their cultural or historical distinctiveness from other populations. In article 13 of the Indigenous and Tribal Peoples Convention (1989) it clearly states that:

Indigenous peoples have the right to revitalize, use, develop and transmit to future generations their histories, languages, oral traditions, philosophies, writing systems and literatures, and to designate and retain their own names for communities, places and persons.[1]

This is a political statement of intent targeted at a general international dimension. This statement delineates the political rights of a legal category of people. For institutions such as libraries and archives worldwide the challenge is to provide services that are beneficial to communities of users. Aware of these challenges, the international community did acknowledge

1 International Labour Organization, "About the ILO," http://www.ilo.org/global/about-the-ilo/lang--en/index.htm.

this through the ILO statement:

> Recognizing that the situation of indigenous peoples varies from region to region and from country to country and that the significance of national and regional particularities and various historical and cultural backgrounds should be taken into consideration.[2]

The second case study analysed in this paper is that of the National Archives of Malta and it is more a case of national identity and heritage rather than of indigenous peoples. Malta experienced very early habitation and centuries-long colonial rule. Following its independence in 1964 it developed further its constitutional and political infrastructure, which consolidated further its national identity. It was never an identity fostered through isolation or seclusion. It was more of a meeting place of diverse cultures emanating mainly from the central position of Malta in the Mediterranean and the large flows of tourism into the country.

When discussing the concept of national identity, Frantz Fanon emphasized that for native intellectuals "the demand for a national culture and the affirmation of the existence of such a culture represent a special battlefield".[3] To some extent, after a couple of decades, Maltese archives are providing historians and other academics with the necessary access and tools to write about and define Maltese cultural identity. However, custodians of archives have to acknowledge that any adequate documenting of cultural identity cannot underestimate the sense of constant change of such an identity. In the words of Stuart Hall, "Cultural identity …is a matter of 'becoming' as well as of 'being'. It belongs to the future as much as to the past. Cultural identities come from somewhere, have histories. But, like everything which is historical, they undergo constant transformation".[4]

Through the MEMORJA project, the National Archives of Malta is

2 International Labour Organization, *Rules of the Game: A Brief Introduction to International Labour Standards* (Geneva, Switzerland: International Labour Organization, 2014), Preamble.
3 Frantz Fanon, *The Wretched of the Earth* (New York: Grove Weidenfeld, 1963), 209.
4 Stuart Hall, "Cultural Identity and Diaspora," in *Identity, Community, Cultural Differences*, Jonathan Rutherford (ed.) (London: Lawrence and Wishart, 1990), 225.

shifting away from the traditional approach of valuing only public records as the main evidentiary tools of the memory of the people. Aware of the demographic, economic and social changes resulting from migration, a strong economy, increased tourism and globalisation, the need to document the present as much as the past poses new challenges to the national archives of Malta.

Aware of these challenges, the authors of this paper try to shed a light on two case studies where the respective institutions are embarking on specific projects to adjust to specific realities. The case studies are conducted on the macro and the micro level respectively. The first relates to an initiative carried out by the library domain within the International Labour Organization (ILO). The second zooms in on a memory project by the national archives of one of the EU member states – Malta.

Case Study One: The ILO

The ILO is the tripartite United Nations (UN) agency that connects governments, employers and employees with the goal of setting international labour standards and promoting decent work for women and men.[5] International labour standards represent a "comprehensive system of instruments on work and social policy, backed by a supervisory system designed to address all sorts of problems in their application at the national level."[6] They are the result of agreement between representatives of governments, employees and employers and as such they represent the "international consensus on how a particular labour problem could be solved at the global level".[7] International labour standards are Conventions, which are "legally binding international treaties that may be ratified by member States" and Recommendations, which are non-binding guidelines.[8] Conventions provide principles that should be implemented by ratified countries, while Recommendations provide more guidelines on how Conventions can be

5 International Labour Organization, "About the ILO".
6 International Labour Organization, *Rules of the Game*.
7 Ibid.
8 Ibid.

applied.[9] When a Convention is ratified, it becomes applicable to national law and countries commit themselves to apply it and report on its application every three to five years, depending on the Convention.[10]

ILO has 187 Conventions – one of which is Convention No. 169 on Indigenous and Tribal Peoples, which was adopted during the 76th International Labour Conference in 1989 and came into force in 1991. Convention No. 169 was ratified by 22 out of 187 member states around the world, including Peru, Mexico, Norway and others.[11] It is the instrument that is currently in place and provides a revision of Convention 107 on Indigenous and Tribal Peoples. As such, it promotes the following:

> Consultation and participation of indigenous and tribal peoples with regard to policies and programmes that may affect them. It provides for enjoyment of fundamental rights and establishes general policies regarding indigenous and tribal peoples' customs and traditions, land rights, the use of natural resources found on traditional lands, employment, vocational training, handicrafts and rural industries, social security and health, education, and cross-border contacts and communication.[12]

When speaking about the indigenous and tribal peoples through the lens of the ILO, two points should be stressed. Firstly, there is a difference between conventions 107 and 169. Both conventions are still in force since the latest is an upgrade of the previous one. The main distinction is the following – Convention 107 stresses that indigenous peoples should be fully integrated into society, while Convention 169 points out that the rights of indigenous and tribal people are universal human rights. These rights should be met and protected within employment, vocational training, right to education, fair labour, heritage and culture protection and

9 Ibid.
10 Ibid.
11 International Labour Organization, "NORMLEX: Information System on International Labour Standards," 2017, http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:1:0::NO:::.
12 International Labour Organization, *Rules of the Game*.

other areas.[13] Secondly, indigenous peoples are often not aware of their rights. Thus documentation, including Convention 169 and statistics on the broad topic of the world of work, which among others include indigenous and tribal peoples from the perspective of forced labour, child labour, land rights and others, are available from the ILO based in Geneva and via its information centres around the world.

Research guide on indigenous peoples

The Library of the International Labour Organization provides information through various channels, one of which is research guides. These are subject-specific digital resources available on the ILO Library website to internal and external users. They represent a centralized digital space that gathers digital publications, audio-visual materials and hyperlinks on 23 separate topics. Even though research guides have the same visual identity and structure, they are managed individually and systematically – by consulting with the subject specific ILO experts in order to select and update their content. Research guides went through a visual and structural update in 2015, when the ILO Library upgraded them to the cloud-based SpringShare LibGuide platform. This update enabled the Library to align with the visual identity of the organization and to provide high quality user centred service.

Content available in all research guides is created by the ILO, and as such it showcases ILO's work and standards. The selection of digital resources for research guides is made in collaboration between the ILO librarian and ILO subject experts and groups. However, the research guide interface and structure were created, tested and rolled-out by the ILO librarian. One specific aim was to strengthen ILO Library's digital services and visual identity. This is why all research guides have the same structure and their visual identity corresponds to the ILO brand.

The creation of research guides on indigenous peoples was divided into

13 International Labour Organization, *Understanding the Indigenous and Tribal Peoples Convention, 1989 (No. 169): Handbook for ILO Tripartite Constituents* (Geneva, Switzerland: International Labour Organization, 2013).

two stages: 1) identifying information need, and 2) identifying and gathering relevant content.

The initiative for gathering all ILO related information on the topic of indigenous peoples in one place came from ILO's Gender, Equality and Diversity Branch (GED). Their subject experts on indigenous peoples matters approached the ILO Library with the idea of consolidating ILO's knowledge. There were two reasons for this initiative. Firstly, the research guide on indigenous peoples didn't exist at that time, which means that information on indigenous peoples and employment, education and land rights around the world was scattered across different ILO websites and databases. The second reason was the upcoming 105th International Labour Conference. One of the items on the agenda was Convention 169, as well as "Employment and decent work for the transition to peace," which covered the employment of indigenous peoples.[14] The ILO Library combined these two reasons with one of its own. These were user requests coming to the ILO Library as part of the Ask a Librarian service by both internal and external users. These users included ILO staff, journalists and researchers, NGOs, students and teachers, librarians and government representatives interested in international labour standards related to indigenous peoples. These external requests were driven by the need to find the right information among the clutter. Therefore, an information need was identified – having a centralized digital point of content on indigenous peoples matters that will serve as a source of reference for ILO staff and external clients that are interested in the topic, that are going to attend, provide input, and cover the topics of the 105th International Labour Conference. Following that, the research guide on indigenous peoples was created in response to these needs – not only to inform, but also to be the first consolidated source of resources on the indigenous peoples topic published by the ILO.

The second stage of identifying and gathering relevant content for the research guide on indigenous peoples was done in collaboration with ILO's Gender, Equality and Diversity Branch (GED). Their focus is on

14 105th International Labour Conference 2016, http://www.ilo.org/ilc/ILCSessions/105/lang--en/index.htm.

researching issues related to equal opportunities in the labour market and eliminating discrimination based on gender, indigenous identity, ethnicity and other characteristics.[15] Together with other departments, the GED Branch has contributed to creating a body of work on indigenous peoples matters that was published by the ILO. The purpose of collaborating with the GED subject experts was to identify core work by the ILO on indigenous peoples' matters and to ensure that the unified message carried by the research guide is communicated clearly to all ILO stakeholders and external users. Since ILO has three official languages – English, Spanish and French, GED subject experts helped in selecting digital resources in all three languages.[16] Therefore, all publications, hyperlinks to the library catalogue, audio-visual materials and hyperlinks to external resources were selected and organized in collaboration with subject specialists. They were the guiding force in identifying relevant material and providing guidance on the topic. However, the librarian had an important role in finding the resources in different formats and languages and organizing them according to the structure of a research guide, so that the navigation through the extensive corpus of information is easy and intuitive. The timeline for finalizing the research guide on indigenous peoples was two months and the execution was divided into four phases: 1) gathering content, 2) following the structure of the research guide, 3) testing and 4) going live. Content for the research guide on indigenous peoples was retrieved from the ILO Library catalogue, ILO databases such as Normlex, and the official website of the Organization and its departments.

The ILO Library's research guide on indigenous peoples was put online in November 2015.[17] It is considered to be a centralized digital point of information on the topic of indigenous peoples, and as such it contains hyperlinks to digital resources such as key ILO publications on the topic, selected bibliographies divided by theme, e.g., land rights, child labour,

15 International Labour Organization, "Gender, Equality and Diversity Branch (GED)," 2017, http://www.ilo.org/gender/lang--en/index.htm.
16 International Labour Organization, "ILO Library Research Guides," 2017, http://www.ilo.org/inform/online-information-resources/research-guides/lang--en/index.htm.
17 International Labour Organization, "Research Guide on Indigenous Peoples." http://libguides.ilo.org/indigenous-peoples-en.

forced labour, employment, and geographical region, e.g., Africa, Europe, South America and others. The research guide also contains information about International Labour Standards and statistics, hyperlinks that lead to other ILO specific resources and departments specialized according to topic, as well as hyperlinks to other UN working groups and departments. All these resources are divided into four sections of the research guide. The first one is the Home section, which provides general information about who are indigenous peoples and offers access to audio-visual materials. The Home section also stresses key ILO documents that are targeted to users who are interested in a quick overview of the topic. The second section is entitled ILO Library Resources and it provides hyperlinks to curated digital publications that are available in the ILO Library digital catalogue. The third section, International Labour Standards, provides access to ILO Conventions 169 and 107, as well as hyperlinks to the Normlex database, with access to International Legislation on indigenous and tribal people.

The research guide on indigenous peoples is systematically updated with relevant new digital resources available in the ILO Library catalogue and other ILO databases.[18]

When speaking about the navigation, it is good to point out that the structure of the research guide together with the way information is presented and the time it requires to find content, was tested by ILO staff who had different levels of IT and information literacy. Since the research guide is focused on providing information, educating and sharing knowledge on indigenous peoples to different target groups – ILO employees, journalists, librarians, students and academic researchers, NGOs and government representatives, it should provide easy access to information and have intuitive navigation. These were the main criteria for the testing process. After presenting and testing different versions of the research guide by means of a focus group, the final decision was made and the structure of the research guide, together with the division of information per category, could be found on the ILO Library research guide platform (Figure 1).

18 Ibid.

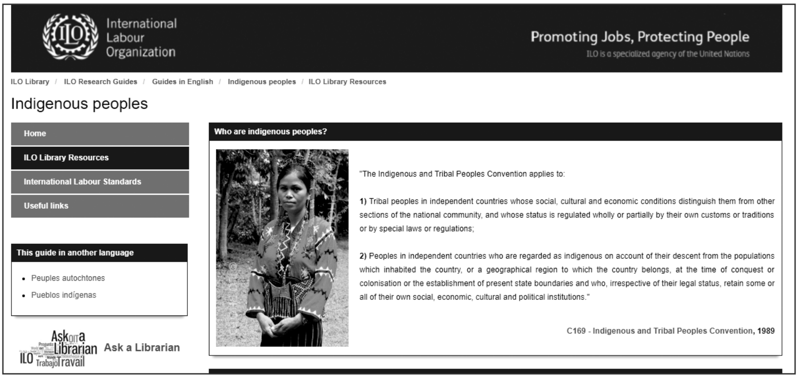


Figure 1 Outline of the ILO research guide on indigenous peoples

There is no doubt that the provision of such a service will add value to the concept of indigenous peoples and also facilitates access not only to the indigenous peoples themselves but also to anyone who is interested in the topic from a policy-making or academic point of view.

Case Study Two: MEMORJA project in Malta

Malta is a place of contrasts and dichotomies. It is centrally situated in the Mediterranean Sea but peripheral to Europe although still an active believer in and member of the EU. The smallness of the place is compensated for by an abundance of heritage originating over millennia of contacts with several civilisations. At times this happened as through being colonised, at others as a hub of service provision for trading during times of peace or as military support in times of war, and during the last few decades as hosts to an ever-growing tourist industry. In the words of John Tunbridge "the defining quality of Malta's heritage resources is their unparalleled time-depth contained in a tiny archipelago some fifty kilometres long. Malta contains the oldest standing human structures in existence, Neolithic temples some five and a half millennia in age".[19] Thus,

19 John Tunbridge, "Empire, War and Nation: Heritage Management Perspectives from Canada and Malta," *Public History Review*, 13 (2006): 12.

although their population is less than half a million, the Maltese do exhibit identification with the ancient heritage of the land and have tangible time markers.

In the case of Malta the main challenges and struggles the population is facing are of multiculturalism, pressures of immigration, risks of brain drain posed by migration and the preservation of a Maltese culture in the diaspora. Core national identity elements such as the "unique language" also face a challenging future. The Maltese language has been in use for centuries, is documented in writing going back to the mid-15th Century, and is still used by the majority of the population as their main daily and official language.[20] But the challenges of globalisation are constantly challenging the community. The labour market is changing and the demographic shifts in the population are changing Maltese culture and identity at an unprecedented rate. How are memory institutions in Malta adjusting their approaches to cope with the change from a longstanding uniculture society to a multicultural one? This is a rather complex question and can only be answered through extensive analysis on the ground in the different domains. For the scope of this paper, we will focus on the efforts of the National Archives of Malta to shift certain of their operations from the boardroom into the street.

The approach we will use is a case study of the way in which Maltese society was affected by migratory movements and the documenting of such processes. Emigration from Malta in the mid-18th century had big demographic, social and political affects that changed the physiognomy of the Maltese nation. Malta, being a small island, overpopulated for its land size, with no mineral resources, little rainfall, mid-way between Europe and North Africa, experienced population pressures resulting in large migration flows as the land could not fulfil the needs of its inhabitants. We will see how this was documented in the past both within Malta and in the diaspora. This will then be compared with how the in-bound migra-

20 The Cantilena is the earliest poem written in the Maltese language, an historical dialect of Arabic which evolved into today's national language of Malta (one of the official languages of the European Union). It was composed by Peter Caxaro in the mid-15th century and copied by Brandano Caxaro, his relative, in a notarial volume dated 1533-1536. It was discovered in 1966 by Fr Michael Fsadni and Prof. Godfrey Wettinger and due to its uniqueness it still provides the main corpus for medieval Maltese.

tion we are experiencing now is being documented and the impact of the methods used on concepts such as authenticity, provenance and evidence that are central to the themes of this conference.

Emigration and Malta

The Maltese population experienced extensive migratory flows in the inter-war period and the nineteen-fifties and sixties. It is estimated that there are twice as many Maltese in the diaspora than in Malta itself. The process is documented in a structured manner in the public records held at the national archives in a top to bottom approach. The state machinery was documenting the shifts in population through passport applications, visa permits, passage assisted schemes and other official shipping lists or air passenger logbooks. While this approach provided emigration historians with a goldmine of data, they often failed in capturing the human side of emigration (Photo 1).[21]

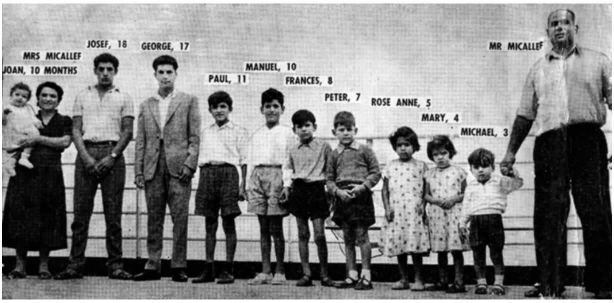


Photo 1 Family Micallef departing from Malta with their ten children in 1959. (National Archives of Malta Photographic Collection)

The movement of people and how this is documented in public archives and its effects on demography and the indigenousness of populations is

21 One of the Maltese historians who worked extensively on emigration was Lawrence Attard who published books such as: *The great exodus (1918-1939)*. Marsa, Malta: Publishers Enterprises Group, 1989; *The safety valve: a history of Maltese emigration from 1946*. San Gwann, SGN: Publishers Enterprises Group, 1997; *Beyond our shores: a panorama of Maltese migration*. San Gwann, Malta: Publishers Enterprises Group (PEG) Ltd, 2007.

still a current preoccupation. The population is continuously struggling to adapt to an influx of people – a large percentage of them coming from North Africa. Most of these cross from Africa to Europe risking their lives in order to seek a better future and end up almost shipwrecked on Malta. Additionally, following Malta's accession to the EU, we experienced a large influx of workers.[22] Due to the availability of employment in the country has, most of these persons are settling in Malta, buying property and sending their children to school there. The question "Who is Maltese?" has never been as challenging to answer as it is today. The question of whose history we as memory institutions are to capture is even more challenging.

Community Initiative based projects

All these changes in society place on any national archives the responsibility to adapt, react and reengineer its structures to capture the memory of the people. While the mission of the National Archives of Malta remains that stipulated in the archival legislation – "to preserve the collective memory of the Maltese nation through the protection and accessibility of all public archives" -- the context of our operations changes continuously.[23]

With this in mind, as far back as 2004 the National Archives of Malta had already launched the National Memory Project, aimed at reaching out towards the community. From documenting the actions of the state, we shifted more towards documenting the social life of the community – the feelings of the people.[24] The project started reaching out to private individuals, organisations, NGOs and others to pool into our system material

22 Statistics provided by the National Statistics Office, Malta as at the month of September 2016. Currently there are 31,500 non-Maltese born workers in Malta (23,000 – EU nationals and 8492 from other Countries).

23 National Archives Act, Malta, 2005.

24 The National Memory Project was launched in 2004 and was re-branded as MEMORJA in 2017. For information and analysis about the use of digital technology by the Maltese archives sector and the shift from a public records oriented national archives to a more comprehensive approach one can consult the following: Charles J. Farrugia, "Maltese Experience with Digitizing Cultural Heritage," *International Journal Information Theories and Applications*, 11:3 (2004): 278-281; Charles J. Farrugia, "Work in Progress: Towards the Establishment of a National Register of Archives," *Journal of Maltese Studies*, 1 (2008): 67-73, https://www.um.edu.mt/library/oar//handle/123456789/17908; and Charles J. Farrugia and Ian Ellis, "Images, context and structure: the Richard Ellis archive (Malta) revisited," *Revisto Photo & Documento*, 1 (2016): http://gpaf.info/photoarch/index.php?journal=phd&page=article&op=view&path%5B%5D=25.

of value to the collective memory of the nation. Up until now several such collaborations were entered into through memoranda of understanding or other agreements. Two of these will be discussed here to highlight how this two-way interaction is empowering these "new" records creators to become active agents in the national network of the memory safeguarding regime. The first project was called "The Great Book of Malta – Vol. 1, Ħamrun" and the second branded "The People of Malta".

"The Great Book of Malta" was the brainchild of John Baraldi who gathered a group of young photographers with the aim of capturing images as they roam the streets of a particular village.[25] The focus is the community, its characteristics, what makes it particular and what distinguishes it from nearby communities. The project has didactic benefits for participants who are young students. It also tries to map the community in a structured way, mapping each of the streets in the village. But the biggest advantage is that it is by the community and for the community (Photo 2).

Photo 2 Children during the First Holy Communion procession in Ħamrun. (National Archives of Malta. The Great Book of Ħamrun Project)

25 "The Great Book of Malta – Vol. 1, Ħamrun," http://thegreatbookofmalta.com.

In the case of "The People of Malta" project, the main platform for its dissemination is Facebook.[26] This medium has the advantage of a robust technical infrastructure that is freely available, and a catchment area that is quite impressive.[27] Roderick Vella and Stephen Buhagiar teamed up to develop this project more as a hobby than anything else. They made best use of their teaching background and their love for photography to identify particular characters from daily life and capture their visual depiction and also a bit of their character for posterity. The focus of the project is the individual. Each photo subject has a message to convey, and this is captured not only through photography but also through very telegraphic interviews. When the National Archives came into the picture, the target was to allow these projects to develop in a natural way. What needed to change was to put into the project certain archival measures in order to guarantee better preservation and access for future generations. The following two figures explain the workflow of the People of Malta project prior to the National Archives involvement and after the signing of the collaboration agreement.

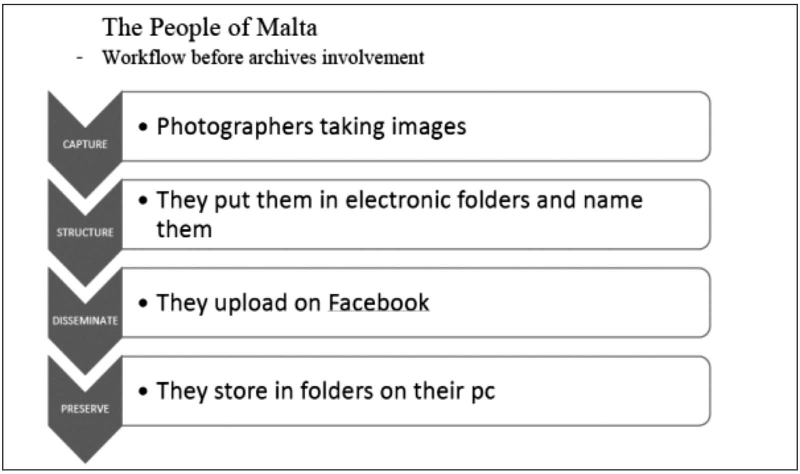


Figure 2 The People of Malta before the National Archives involvement

26 "The People of Malta," https://www.facebook.com/thepeopleofmalta.
27 At the time of writing this presentation over fifty four thousand people had liked the page. This number is impressive for a project originating in a small country such as Malta.

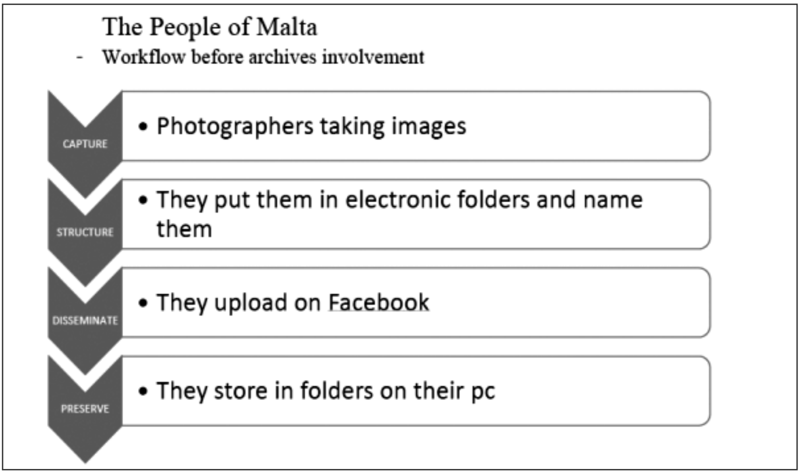


FIGURE 3 The People of Malta after the National Archives involvement

The National Archives started raising issues such as whether consent forms are being filled in, the type of recordings being made, issues of formats, and issues of data tagging in order to create metadata that is meaningful not only to the creators themselves but also to the custodians who will preserve and give access to this data in future. The process is a partnership between the archives and the community aimed at rendering projects that originate from the community more archivally sound.

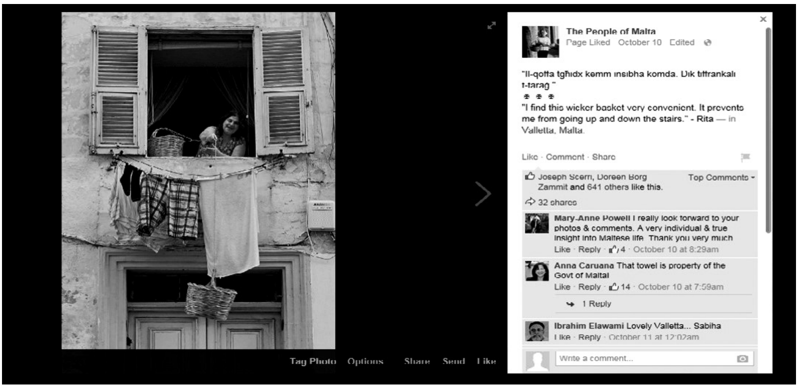


PHOTO 3 This screen grab shows the interactivity of the project with users commenting, adding knowledge or even criticising the subjects and images.

An interesting dimension of the "People of Malta" project is the interactivity provided by the Facebook infrastructure. Members of the public can add comments, supplement content with information they might have, or even criticise an item. In this way, they become active participants in the process (Photo 3).

There might be those who argue that with this involvement in the early stages of the lifecycle of records, particularly in the creation phase, archives will be interfering, and to some extent distorting, the natural accumulation of records. While this preoccupation sits comfortably where public records are concerned, it is not the same situation when the central issue is documenting people's experiences and actions happening at the periphery. In the words of John Tunbridge, "conflict over heritage exists not only at different levels and in different guises, but between contending stakeholders in the production of heritage as well as in its consumption".[28] Aware of these conflicts, the National Archives of Malta is shifting its approach to a multi-disciplinary one. In its current flagship project rebranded as MEMORJA the focus is on bringing together archivists, historians, audio-visual specialists and an array of other specialised persons to capture, manage and interpret the wealth of material reaching the archives. In this way we are hoping to leave for future generations a richer array of evidence, contextualised with the necessary provenance information while guaranteeing its authenticity and thus authority.

Conclusion

This paper focuses on just two of many challenges libraries and archives are facing worldwide. These are the changing demands imposed on them by international policy shifts and also by national needs to safeguard, disseminate and promote concepts such as those of nationhood through cultural heritage.

Within the limitations of the study, practical examples were given on

28 Tunbridge, "Empire, War and Nation", 11.

how both librarians and archivists are designing new projects or services to cater for specific needs or trends. From undisputed doorkeepers to information they are becoming moderators of information sources – grouping, structuring, standardising and building bridges between new creators of data and users. In both instances studied in this paper, the focus is entirely on mapping the need for these services, their development and the status quo of the project. Further studies are needed to assess to what extent 'users' were involved in the design of such projects and whether there is too much top to bottom approach in these initiatives. The topic also lends itself to future evaluations aimed at the analysis of the up-take of such services and the patterns of use and interaction with them.

References

"105th International Labour Conference 2016," http://www.ilo.org/ilc/ILCSessions/105/lang--en/index.htm.

Attard, Lawrence. *Beyond our shores: a panorama of Maltese migration*. San Gwann, Malta: Publishers Enterprises Group (PEG) Ltd, 2007.

Attard, Lawrence. *The great exodus (1918-1939)*. Marsa, Malta: Publishers Enterprises Group, 1989.

Attard, Lawrence. *The safety valve: a history of Maltese emigration from 1946*. San Gwann, SGN: Publishers Enterprises Group, 1997.

Fanon, Frantz. *The Wretched of the Earth*. New York: Grove Weidenfeld, 1963.

Farrugia, Charles J.; Ellis, Ian. "Images, context and structure: the Richard Ellis archive (Malta) revisited," *Revisto Photo & Documento*, 1 (2016): http://gpaf.info/photoarch/index.php?journal=phd&page=article&op=view&path%5B%5D=25

Farrugia, Charles J. "Maltese Experience with Digitizing Cultural Heritage," *International Journal Information Theories and Applications*, 11:3

(2004): 278-281.
Farrugia, Charles J. "Work in Progress: Towards the Establishment of a National Register of Archives," *Journal of Maltese Studies*, 1 (2008): 67-73, https://www.um.edu.mt/library/oar//handle/123456789/17908.
"The Great Book of Malta – Vol. 1, Ħamrun," http://thegreatbookofmalta.com.
Hall, Stuart. "Cultural Identity and Diaspora," in *Identity, Community, Cultural Differences*, Jonathan Rutherford (ed.) London: Lawrence and Wishart, 1990).
International Labour Organization, "About the ILO," http://www.ilo.org/global/about-the-ilo/lang--en/index.htm.
International Labour Organization, "Gender, Equality and Diversity Branch (GED)," http://www.ilo.org/gender/lang--en/index.htm.
International Labour Organization, "ILO Library Research Guides," http://www.ilo.org/inform/online-information-resources/research-guides/lang--en/index.htm.
International Labour Organization, "NORMLEX: Information System on International Labour Standards," 2017, http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:1:0::NO:::.
International Labour Organization, "Research Guide on Indigenous Peoples," http://libguides.ilo.org/indigenous-peoples-en.
International Labour Organization, *Rules of the Game: A Brief Introduction to International Labour Standards*. Geneva, Switzerland: International Labour Organization, 2014.
International Labour Organization, *Understanding the Indigenous and Tribal Peoples Convention, 1989 (No. 169): Handbook for ILO Tripartite Constituents*. Geneva, Switzerland: International Labour Organization, 2013.
"The People of Malta," https://www.facebook.com/thepeopleofmalta.
Tunbridge, John. "Empire, War and Nation: Heritage Management Perspectives from Canada and Malta," *Public History Review*, 13 (2006): 4-22.

AUTOHTONI NARODI I IZAZOVI NACIONALNOG IDENTITETA
DVIJE STUDIJE SLUČAJA IZ KNJIŽNICA I ARHIVA

Ključne riječi:
autohtoni narodi, nacionalni identitet, kolektivna memorija

Sažetak

Knjižnice i arhivi su u procesu neprestane prilagodbe svojih usluga potrebama zajednice u kojoj djeluju. Te se potrebe konstantno mijenjaju. Ovaj je rad usredotočen na promjenu dinamike u dva područja – autohtoni narodi i nacionalni identitet, obrađujući ih kroz dvije studije slučaja, jednu iz Međunarodne organizacije rada i drugu iz Nacionalnog arhiva Malte. Cilj je istraživanja prikazati kako knjižnice i arhivi reagiraju na promjene potreba zajednice u svrhu pokretanja rasprave o tome kako međunarodne i nacionalne organizacije s širokim rasponom odgovornosti i djelovanja mogu usmjeriti svoje usluge i na potrebe specifične grupe korisnika korištenjem tehnologiju za zaštitu i promicanje njihovih potreba.

VII

Methodological Approaches

THE RELEVANCE OF THE CONTEXT

Mario Katić
Department of Ethnology and Anthropology, University of Zadar, Croatia

Once, a number of blind men encountered an elephant. Every one of them touched one of the parts of its body with his hand and imagined the animal in his mind. Then they turned away. The one who had touched the leg said that the shape of the elephant was long and round like the trunk of a tree or a palm tree. The one who had touched the back thought that its shape was similar to that of a high mountain or a hill. The one who had touched its trunk described it as something smooth without any bones. And the one who had touched its ear thought it to be of a large size, thin, and constantly moving. In that manner, each of the blind men described that part of the animal that he himself had sensed. At the same time, each of them said something different from the others and accused them of misjudgement and inaccuracy in relation to the elephant's shape as sensed by himself.[1]

Keywords:
context, contextualization, relevant context, the meaning in context

Abstract

Taking into consideration the different discussions of the problem of context, the author has tried to draw out some main facts without which we cannot discuss context or use it as an analytical framework:

(1) Context is inseparably interconnected with the meaning of the particular cultural phenomenon or practice that we are researching. If the context is changed, then the meaning is also changed.

1 Translated by Ulrich Marzolph from the oldest Arabic version in Abu Hayyan al-Tawhidi`s al-Muqabasat, Marzolph, Ulrich. "The Migration of Didactic Narratives across Religious Boundaries," *Didaktisches Erzählen*, R. Foster and R. Günthart, eds. (Bern: Peter Lang, 2010), 180.

(2) The relevant context that a researcher uses in their interpretation of some cultural phenomenon or practice is a result of that researcher's pre-existing knowledge and the meaning that they want to find, i.e., the hypothesis they want to prove.

The author emphasizes that we should try to grasp which contexts is relevant for our interlocutors and what kind of meanings they are giving to our object of investigation. If we are trying to interpret and find a meaning in only one "relevant" context, we are actually preventing the multiplicity of the meanings it can have, and in that way making it inexplicable.

Regardless of our disciplinary background most of us in the social sciences and humanities research and interpret something in a context. When writing a paper or presenting one on a conference we are asked to give a short geographical, historical, social, cultural, personal, disciplinary, etc. context of our paper. But, what does it mean to contextualize? If there are so many different contexts, which one is the most relevant? Every cultural context differs geographically and historically, and vice versa. Moreover, depending on the perspective and our disciplinary methodological approaches we can take different contexts as relevant and produce different interpretations of the same practice, process or object of our research. As in above quoted story, it seems to me, that we are like those blind men seeing only one small segment and interpreting it in our own way, completely convinced that our way is the right way and that our context is the most relevant context. The interesting thing is, like those blind men, we are all probably right, but most of us are not aware that our context is only one of the possible relevant contexts, only one perspective that could easily be changed. We are also not aware that by changing the perspective, the relevant context, we are bound to change the interpretation and give different meanings to perhaps the same research focus. In this paper I want to argue for awareness of the importance of context in research and writing. My aim is to present how different disciplines approach the problem of context, how at the same time they are not that different, and that there can be a few general conclusions on which we can build and further develop the discussion of the importance of context.

How different disciplines problematize context as a concept

It is almost impossible to find and present all the papers, books and approaches to context in the social sciences and humanities. Moreover, a large number of papers that in their title or in keywords have the notion of context do not actually discuss context *per se*, they just use it as an analytical framework. I have tried to be selective but also inclusive in order to try to get to a broader picture of approaches to the context. For this reason, I have included works that go beyond the social sciences and humanities. In these kinds of discussions on concepts that are omnipresent, drawing lines between disciplines and fields are limiting without any particular reason.

Psychologist Susan Engel uses context in her research on memory and argues that, among other things, the process of memorialization depends on social context because most of our memories include transaction, i.e. the way we share, negotiate and present our personal memories is the result of our remembering collectively with or because of other people.[1] According to her, all features of context play a formative role in the process of remembrance and memory.[2] There is no memory that stands alone since we are never remembering outside of some specific context - a situation that forms what we know and understand as a memory.[3]

Geographer Clive Barnett has problematized the relationship between the deconstruction and the conceptualization of context within textual interpretation.[4] Barnett considers context through a perspective that enables the conceptualization of context in relationship with text and interpretation.[5] Barnett actually is criticizing the conceptualization of context within geography as a way to explain and interpret the object of the research.[6] Geographers consider context as a way to observe how general processes are embedded, adapted and reproduced in some individual localities. This is connected with the critique of universal epistemologies. He argues that representation and theory are closely connected with the particular context in which they have been designed. In human geography the context is taken for granted and there is very little reflection on what actually constitutes the context (1999: 280).[7] According to Barnett, in human geography, there is a consensus about the way in which ideas, discourses and representations must be observed in an historical, economic or social

1 Engel, Susan. *Context is Everything: The Nature of Memory* (New York: W. H. Freeman and Company, 1999), 9.
2 Ibid., 11.
3 Ibid., 52.
4 Barnett, Clive. "Deconstructing Context: Exposing Derrida," *Transactions of the Institute of British Geographers*, 24:3 (1999): 277.
5 Ibid., 280.
6 Ibid., 277.
7 Ibid., 280.

context if we want to interpret, explain and critique them.[8] Barnett emphasizes that there are two features that are implied when we contextualize something: fixing it, and giving it a meaning. First, contextualization is an act of localization, bringing the object back into its original situation or original place. Second, contextualizing something (no matter whether we are discussing a place, a time period, or a linguistic communication) includes drawing boundaries that serve as a frame within which we can include otherwise unrelated texts.[9] According to Barnett, text is considered the most usual medium within which we transfer meaning, but text is a medium that is susceptible to appropriation. Every event is irretrievably lost as soon as it is articulated, it is irreversible in its unique and original form.[10] If there is no meaning without context, then context cannot be closed (defined). Context always has to be open in order to function as a context.[11] The meaning of texts and statements in fact depends on their multiple, unexpected re-contextualizations.[12]

Philosophers have also discussed the meaning of context. Lenn Goodman, like Barnett, observes context in relation to text. Goodman emphasizes that every sentence has a core meaning that can be differently interpreted in different contexts.[13] He uses an example of a dialogue between two burglars, where one of them said: "the policemen is behind the corner". The core meaning is the fact of the location of the policemen, but this sentence can imply other meanings as well. For example, it can mean that the policemen are very close to the burglars so they will have to hurry. Goodman agrees that there is the core meaning of the sentence, but he argues that the sentence can have more than one core meaning even though the context is the one that constitutes the core meaning of the sentence. Likewise, the phrase: "behind the corner" can have different meanings in different contexts.[14] Another philosopher, Daniel Adler, views context as

8 Ibid.
9 Ibid.
10 Ibid., 287.
11 Ibid., 288.
12 Ibid.
13 Goodman, Lenn. "Context," *Philosophy East and West*, 38:3 (1988): 308.
14 Ibid., 309.

a phenomenon, considering its role in different situations.[15] Adler argues that context is not fixed beforehand, but is actually changing through process.[16] Observing context as an effect, Adler considers that context is being felt by the agent and in that way is being adapted by the agent's subjective approach. Context is unavoidable, but it is possible to decide to ignore some of its parts (features). Sometimes, it is possible to change perspective or purpose, and context depends on perspective.[17] According to Adler there can be as many understandings of context as there are types of situations.[18] Context can be whatever a particular situation becomes in relation to our expectations, considering that "becomes" refers to the observer's subjective view. Adler, nevertheless, considers that context is not totally subjective. Although it is a situation seen by an individual, it is still possible to have an objective description of context, at least in theory.[19] It seems that context depends on the researcher's expectations, which are being imposed on a certain situation to form what the researcher considers to be a context.[20] Context is in a certain way infinite. Any cognitive process includes an infinite set of mutually interconnected facts from which almost everything can become part of its context.[21] Moreover, if we accept the hypothesis that every context can be a part of some other bigger context, we can also conclude that there are an infinite number of contexts. That kind of context is not practical, because it is impossible to take into consideration every possible feature of some context.[22] Because of this, according to Adler, we are actually using only a narrow conception of context that is dependent on our idea of a "normal context".[23] The reader knows that if there is no problematization of context, then context is not problematic. This is sufficient for the reader to accept the offered conclusion from the text. In that manner, the reader and the theoretician

15 Adler, Daniel. "Is Context a Problem?," *Proceedings of the Aristotelian Society*, 93 (1993): 284.
16 Ibid., 286.
17 Ibid., 288.
18 Adler, Daniel. "The Normativity of Context," *Philosophical Studies: An International Journal for Philosophy in the Analytic Tradition*, 100:3 (2000): 276.
19 Ibid.
20 Ibid., 279.
21 Ibid., 281.
22 Ibid., 282.
23 Ibid., 284.

are depending on a mutual feeling of "normal" context.[24] One of Adler's major ideas is that when the context changes, even if everything else stays the same, the result (the activity observed), also changes.[25] The observed event is what defines the context, and that context, together with other external influences, is what defines the event.[26]

Context as a concept and analytic framework is probably best developed within folklore studies. Alan Dundes is considered to be the "father" of the contextual approach in folklore analysis. Aiming to encourage a new debate on the definition of different folklore forms, in his 1964 paper titled *Text, Texture and Context* he suggests three levels of folklore form analysis: of the text, texture and context.[27] Analysing texture means focusing on language (phonemes and morphemes); the text would be one version of the story or one recorded narrative; while the context would be a social situation in which a particular folklore form is being presented/used. He argues that the context should be differentiated from the function of the folklore form because the function means abstracting based on several contexts, so the function is actually a researcher's interpretation of the possible use and function of some folklore form.[28] This debate was further developed by other folklorists. Dan Ben-Amos produced maybe the most theoretically elaborated interpretation of context in folklore studies. According to him, folklore is an integral part of a culture which means that extricating it from its "original" place, time and society leads to qualitative changes.[29] Ben-Amos lists a series of variables such as the social context, cultural context, rhetorical situation, talent of the individual, audience, etc. all of which could influence the structure, text and texture of a particular folklore form.[30] Ben-Amos concludes that for the analysis of the particular folklore form, performance is the most relevant context,

24 Ibid., 285.
25 Ibid., 288.
26 Ibid., 289.
27 Dundes, Alan. "Tekstura, tekst i kontekst," *Folkloristička čitanka,* Hameršak, Marijana i Suzana Marjanić, ur. (Zagreb: Institut za etnologiju i folkloristiku; AGM, 2010.), 93.
28 Ibid., 95.
29 Ben-Amos, Dan. "Prema definiciji folklora u kontekstu," *Folkloristička čitanka*, Hameršak, Marijana i Suzana Marjanić, ured. (Zagreb: Institut za etnologiju i folkloristiku; AGM, 2010.), 122.
30 Ibid.

because any and all variables can and do influence the text.[31] Using and observing context as an analytic model, Ben-Amos claims that contextual analysis does not explain folklore, rather it interprets it. The contextual analysis is not restricted to text but rather examines the entire experience of folklore in some society and/or community, which means that the analysis must take into consideration the cultural, social and situational context. The meaning of text here is its meaning in context, which means that transferring any folklore text into some literary, historical or cultural context changes the meaning of the text. Ben-Amos argues that folklore text does not have just one meaning, and that every use of the text includes other (former) contexts as a constitutive part of its meanings. The only real interpretation is the interpretation of the text in context.[32] The interpretive function of context is particularly valuable in comparative analyses in which fixed texts, framed motives and narrative patterns are present in different cultures. Their meanings and significance are dependent on the context. Their performers and holders are not familiar with their diffusion, for them, they have a very particular meaning. In every event context functions interpretively, attaching to performances the meanings which performers and the audience sees in them. When the text is a stable form, and the context is variable, then the context influences the meaning that a text can have. In that way the context is functioning as an interpreter of the text.[33] On the other hand, folklore forms that have a greater textual variation could have a stronger stability of meaning in different contexts, however, the broader cultural context can affect these kinds of texts as well. These texts are equally connected with ideologies, historical knowledge, ways of thinking, aesthetic principles, etc.[34] Ben-Amos concludes that the concept of context is free of designated values; there is no privileged contextual situation, they are all equally important and influential, which means that every research situation constitutes its own context.[35]

Another folklorist, Katherine Young, has focused on the multiplici-

31 Ibid., 123.
32 Ben-Amos, Dan. "„Context" in Context," *Western Folklore*, 52:2 (1993): 210-211.
33 Ibid., 212.
34 Ibid., 213.
35 Ibid., 219.

ty, differentiations, and constitutionality of the context. She claims that everything that surrounds some event does not have to be contextual for that event, i.e., the context is a matter of relevance.[36] That is why it is necessary to specify the relationship of the particular context with the particular event. Contextual analysis, according to Young, should problematize the relationship between the context and the event, and not between collections of contexts.[37] Events are dependent upon context in two ways: (1) the context is the context of some event. Every context brings a different perspective on the event, and the event presents itself differently in different contexts. The number of contexts that can influence that event is countless, but they are not all influential at the same time. The contexts change with the view of the observer and they are not the same for other observers, which means that, (2) the context is the context of the observer.[38] Young argues that the context can perfectly fit in order to correspond with the goals of the observer, likewise with the goals of the analysis and interpretation. Different analyses reference different contexts and so the choice of the perspective directs the analysis towards the events that function as a context. That means that the same event in a different context is actually a different event. The events and contexts are intertwined.[39] Young concludes that every context draws out different aspects of the story, likewise, different aspects of the story enter different contexts. The stories are not a constant in different contexts, neither are contexts fixed constellations around some story. The stories and contexts are inter-dependent; stories change and contexts are multiple.[40]

One of the most important discussions and interpretations of context derives from anthropology. In anthropology context is used to define different characteristics and environments. Context can be cultural, social, political, ritual, religious, economic, ecological, interactional, historical, etc.[41] According to Ladislav Holy, context has been and always will be the

36 Young, Katherine. "The Notion of Context," *Western Folklore*, 44, 2 (1985): 116.
37 Ibid., 117.
38 Ibid.
39 Ibid.
40 Ibid., 122.
41 Dilley, Roy. *The Problem of Context* (Oxford; New York: Berghahn Books, 1999), 26.

key anthropological concept.[42] Across the history of the discipline of social/cultural anthropology, different characteristics and/or features were considered relevant context. According to Dilley we are actually talking about theoretical paradigmatic changes in the discipline – from function to meaning, and from structure to process.[43] Culture becomes, for many anthropologists, the key context,[44] however, while the concept of the culture was problematized, criticized, redefined, the concept of the context was considered clear and unproblematic.

Since Bronislaw Malinowski, who is considered, by many authors, to be the pioneer of the contextual approach in anthropology,[45] anthropologists are using their "mantra" of "putting" some social or cultural phenomena in the context as an analytic strategy to give meaning to their ethnographic material.[46] There are two key notions that are fundamental for anthropological contextual analysis, and both are framed by Malinowski: (1) the context of the culture, and (2) the context of the situation. The context of the culture refers to shared knowledge of the performers, their convention of the behaviour, religious systems, linguistic metaphors, historical awareness and ethical principles. This cultural context is the broadest frame for the perception and interpretation of folklore. The context of the situation is the narrower context and refers to the direct situation in which the folklore form is being performed.[47] Malinowski designed the situational context in order to deal with the circumstances in which language is being used and articulated. He argued that the meaning of the words should always be searched for within the culture, and should not be considered as something passive.[48]

The only, as far as I know, anthropological publication focused on context *per se* is a 1999 volume edited by Roy Dilley with the simple title *The Problem of Context*. The editor starts with the fact that context itself is a problematic notion, and that it is a result of previous interpreta-

42 Holy, Ladislav. "Contextualisation and Paradigm Shifts," *The Problem of Context*, Dilley, Roy (ed.) (Oxford; New York: Berghahn Books, 1999), 48.
43 Dilley, *The Problem of Context*, 3.
44 Ibid., 4.
45 Ben-Amos, "„Context" in Context", 215; Dilley, *The Problem of Context*, 25.
46 Dilley, *The Problem of Context*, 1.
47 Ben-Amos, "Context" in Context", 215.
48 Dilley, *The Problem of Context*, 25.

tions.[49] Dilley emphasizes that one of the main features of social/cultural anthropology is the interpretation in the context,[50] which binds the two key notions of anthropological methodology: interpretation and context.[51] To interpret means to interconnect, and the context likewise includes connections but also incoherence. When we interpret an object we are actually putting it in the context, respectively, connecting it with relevant relations in its environment.[52] According to Dilley, context is a set of links interpreted as relevant for somebody or something, or a particular problem.[53] However, there are questions that Dilley raises that were taken for granted by other anthropologists: What does it mean to place something in the context, and/or take something out of the context? What is the difference between being in the context and outside of it? How do you design a relevant context that you use in your analysis?.[54] Dilley considers that our own anthropological knowledge is included in our construction of those contexts that we consider relevant for particular problems, i.e., we choose the appropriate context for the analysis of other people's practices. This is, according to Dilley, a serious problem with very significant implications for anthropology in general,[55] and for other disciplines I would add. Behind this "simple" notion of contextualization that gives the form to our interpretations, there are important questions: What actually is the context? How do you define it? And who chooses it? Dilley emphasizes that the interpretation in the context demands a pre-interpretation of the relevant context that we then use in our next interpretation. He links his ideas with Ricoeur who argues that if we want to understand the text we have to understand the context, but to understand the context, we first have to understand the text.[56] The very act of interpretation, using one frame rather than the other, is an act of power.[57] Somebody has the power to impose their definition of the relevant context, which for Dilley is he-

49 Ibid., 2.
50 Ibid., ix.
51 Ibid., x.
52 Ibid.
53 Ibid., 2.
54 Ibid., xii.
55 Ibid.
56 Ibid., 15.
57 Ibid., 35.

gemony.[58] For Dilley, the task of the anthropology should be to investigate the possibilities of the relevant context not just according to our knowledge, but also according to the knowledge of the native interpreters and commentators. The anthropologists should try to get these positions in a dialogue.[59] Dilley concludes that we should never lose sight of the fact that the context is relevant for a particular individual who is socially and historically situated.[60] According to him, we cannot actually make some final conclusion regarding the problem of context, we can only raise our awareness about the articulations and connections that we make in the process of contextualization.[61]Ladislav Holy argues that we need to address more attention to contextualization in order to understand why we interpret some phenomena as we do.[62] The best we can manage to do, according to Holy, is to portray context metaphorically, as does Erving Goffman, who considers the context as a frame that surrounds phenomena that we need to understand and interpret. In this argument context is an environment, background, perspective and a stage on which the observed phenomenon has the central position.[63] The problem of defining context Holy tracks in the fact that the relevant context (and the meaning) of some phenomenon is constructed through interpretation,[64] and the problem of defining what exactly is relevant context for our interpretation is a result of a fact that our relevant context comes actually from our interpretation. This means that the meaning is equally dependent on the context as much as context is dependent on the meaning we are trying to find.[65] In trying to find the meaning of a certain phenomenon, anthropologists have, according to Holy, neglected the relationship between meaning and context and tried to find a solution to the problem of meaning by concentrating only on the impact of the context on the meaning. The context, therefore, has been taken for granted, while it was the meaning that was considered

58 Ibid.
59 Ibid., 38.
60 Ibid., 39.
61 Ibid., 38.
62 Holy, "Contextualisation and Paradigm Shifts", 49.
63 Ibid.
64 Ibid.
65 Ibid., 50.

problematic and was subjected to analysis. Phenomena were observed as inseparable from their context, but that context was reduced only to identifying it. We have easily forgotten the fact, argues Holy, that the context of some phenomenon does not actually exist somewhere there, but is also a result of our interpretation.[66] According to Holy, the phenomena we are trying to explain are defining the ways in which we perceive the contexts in which we place them, so the relevant context we choose depends on the meaning we are trying to find. That means that the context is not a result of the analysis, it is actually evoked.[67] The phrase "relevant context" means that there are multiple contexts in which we can observe something, but only one of them is relevant for our interpretation.[68] Holy argues that nothing has a meaning *per se* – the meanings and contexts are inseparable, and meanings are subject to manipulations. The same goes for the context. If meanings are dependent on the context, any kind of manipulation of the meanings results in the manipulation of the context as well. Since the context is constructed for different reasons, defining the context is a useless act.[69] Holy concludes that when our analysis is focused on finding some meaning in one particular context which produced the meaning we are trying to find, our analysis actually abolishes the multiplicity of the meanings, and at the end makes the phenomenon inexplicable.[70] According to Holy, the problem between anthropologists and their interlocutors is the misunderstanding of the conceptualization of the context. Anthropological interpretations are formed on a theoretical level, while the informants always, at least partially, draw from practice. Anthropologists are researching the culture of the informants; the informants live in it, create and re-create it. All of them can interpret the culture, but from different perspectives, and for different reasons and different audiences. Anthropologists have the capacity to place things in a broader context, but they are also in a position to create relevant context.[71] According to Holy,

66 Ibid.
67 Ibid., 52.
68 Ibid., 53.
69 Ibid.
70 Ibid., 56.
71 Ibid., 57.

anthropologists have to direct their attention towards the informant's contextualization that comes from their everyday lives.[72]

Some historians dealing with oral history are also aware of the issues of power and hegemony, the relationship between the researcher and the researched, the researcher reflexivity and transparency. Their considerations of intersubjectivity and power relations between interviewers and interviewees, led to the concept of "shared authority" that redefine and redistribute intellectual authority (Smith[73]). However, I did not found any historian's paper dealing with the problem of context that could be raised within the discussions on oral history or any other historical archive research. Choosing a particular document and consciously or un-consciously neglecting some other is also power act and context defining moment.

I have left probably the most systematic and most comprehensive discussion about context for the end of this walk around disciplines: two books by Teuna van Dijka, *Discourse and Context: A Sociocognitive Approach*[74] and *Society and Discourse: How Social Context Influences Text and Talk*.[75] With these two books he develops a new theory of context. He claims that he considered and analyzed linguistic, sociolinguistic, cognitive, psychological, sociological and anthropological approaches to context and developed his multidisciplinary theory.[76] His contextual analysis of discourse goes beyond grammatical, textual, and interactional analysis and understandings. In other words, for van Dijk, understanding the discourse means understanding the text in its context. This means that the analysis of the discourse must define what is relevant context and how the relationships between that context, text and discourse should be analysed.[77] Van Dijk claims that he, unlike other approaches to the context, observes the context as subjective definitions of interactional or communicational

72 Ibid., 58.

73 Graham Smith. *The making of oral history: Sections 1-2*, http://www.history.ac.uk/makinghistory/resources/articles/oral_history.html.

74 Van Dijk, Teun. *Discourse and Context: A Sociocognitive Approach* (Cambridge: Cambridge University Press, 2008).

75 Van Dijk, Teun. *Society and Discourse: How Social Context Influences Text and Talk* (Cambridge: Cambridge University Press, 2009).

76 Van Dijk, *Society and Discourse*, vii.

77 Van Dijk, *Discourse and Context*, 3.

situations.[78] Context, according to van Dijk, can draw out many features of a social situation, on different levels, that can influence the production, structure and understanding of the discourse, whether the participants are aware of that or not, and whether the analyst is capable of detecting that or not.[79] Van Dijk limits and defines context as those features of the communicational situation that are relevant for discourse, either for those who produce the discourse, or for the recipients. As one of his most important conclusions, he highlights the idea that defining the context as a relevant feature of the social situation means that the context actually does not influence the discourse. He claims that there is no direct connection between different aspects of the social situations and discourse and that the sociolinguist has wrongly assumed that gender, race, age, and social status influence the way we speak, since, according to van Dijk, social features are not directly involved in the cognitive process of discourse production and understanding.[80] In other words, contexts are not objective, they are subjective. They are not a relevant choice of the objective social features of some situation, rather they are a subjective definition of that situation. Context is what participants of the situation define as relevant for that social situation.[81] Because of subjective mental models that derive from personal representations of some particular events, based on personal perspectives, interests and emotions, and framed on personal past experiences, different people who participate in some event, or are witnesses of that event, will have different versions of the same event. However, even those subjective models of the specific event are not just personal, they also have a social intersubjective dimension caused by earlier interactions and communications.[82] Contexts are mental models. They are subjective, they represent personal experiences, and they embody the knowledge about a social and communications situation that we share with other participants.[83] The context is not a part of the social situation, rather it is a

78 Ibid., 16.
79 Van Dijk, *Society and Discourse*, 3.
80 Ibid., 4.
81 Ibid., 5.
82 Ibid., 6.
83 Ibid., 7.

subjective mental model of that situation. For every communication situation, the mental models of the participants define which part of the situation is relevant for each participant.[84] People react based on the environment in which they are situated, and how they see, understand, interpret and assess their environment. Van Dijk questions how people are capable of understanding the complex environments in which they dwell. He claims that it is a result of their basic understanding of the environment. They already have some pre-existing knowledge about the way they need to act and the actions they can perform in particular environments.[85] Van Dijk continues and takes into consideration other possible aspects of the environment such as temperature, noise, silence, smells, purity, pollution, colors and decorations and asks whether these features of the environments can also be a part of the participant's definition of the context?[86] He concludes that only some aspects of the environment, such as the social definition of space and place, can influence discourse that defines a relevant context.[87] Van Dijk differentiates two levels of context: (1) the context of the situation, and (2) the cultural context. The context of the situation is a local context that includes the participants of the face-to-face communication and is situated in a specific environment. The cultural context is more global and includes members of the entire community and their features such as knowledge, norms and values.[88] At the end of his second book, van Dijk summarizes and simplifies his hypothesis and frames some definitions of context. According to him, contexts are everyday experiences, interpretations of everyday events in which we personally participate. As such they are as unique as our experiences are, but they are equally interconnected with the knowledge that we have as members of the group, community or culture. In that way they are becoming experiences that can be partially shared and that enable our mutual understanding.[89]

Although van Dijk has interesting and relevant observations and hy-

84 Ibid., 4.
85 Ibid., 58.
86 Ibid., 59.
87 Ibid., 60.
88 Ibid., 154.
89 Ibid., 201.

pothesis, on a theoretical level, if we take the ideas of the other authors presented here into consideration, he does not actually move these debates forward. The fact that he, independently, comes to more-or-less similar ideas and conclusions as other authors, supports the results of others. It seems to me that he has stayed too much framed within a linguistic perspective on context, and that is too limiting if we want to develop the new multidisciplinary definition of context that he is trying to design.

Concluding Thoughts

All the above-mentioned authors who, from different disciplines and with different approaches, have dealt with and discussed the concept of context, actually agree on many features, problems and facts regarding the context, even though they do not address each other's work, or are necessarily familiar with others' results. In almost all social sciences and humanities context is taken for granted, but at the same time it is being used as one of the main interpretive frameworks. Taking into consideration the different discussions of the problem of context, I have tried to draw out some main facts without which we cannot discuss context or use it as an analytical framework:

(1) Context is inseparably interconnected with the meaning of the particular cultural phenomenon or practice that we are researching. If the context is changed, then the meaning is also changed (Lozica,[90] Holy, Adler[91]).

(2) The relevant context that a researcher uses in their interpretation of some cultural phenomenon or practice is a result of that researcher's pre-existing knowledge and the meaning that they want to find, i.e., the hypothesis they want to prove (Young; Goodman; Adler;[92] Ben-Amos; Engel; Barnett; Dilley; Holy; Dundes).

90 Lozica, Ivan. *Izvan teatra: teatrabilni oblici folklora u Hrvatskoj* (Zagreb: Hrvatsko društvo kazališnih kritičara i teatrologa, 1990.).

91 Adler, "The Normativity of Context".

92 Adler, "Is Context a Problem?"; Adler, "The Normativity of Context".

We can conclude from this that the researcher using their pre-existing knowledge about some phenomenon or practice frames a hypothesis and begins their research. In order to have their research accepted by others, they employ as an analytical framework, among other things, context - contextualization. However, out of any number of possible contexts, meanings and functions that this particular phenomenon or practice could have for the holders – our interlocutors, in different spatial and time frameworks, the researcher chooses only one "relevant" context that is relevant for them and for the audience for which they are writing. Choosing this particular and specific context as the most relevant for interpretation, they consciously or un-consciously, find arguments, evidence and artefacts that will support their claims and hypothesis. If some new elements surprisingly appear that do not fit into the framework and relevant context that have already been established by the researcher, then they are likely to be discarded as context that is irrelevant to the context in which the researcher is working. Such discarding or exclusion of other contexts constitutes an act of power and hegemony.[93] Moreover, important issue is the researcher's reflexivity and self-awareness. If we imagine that the main source of the information's is an interlocutor we have additional factors to be aware of. Besides our perspective and selection of information, there is also the perspective and selection of our interlocutors. Research process is always a two-way street, we receive those information's that our interlocutor wants to share with us. So, our selection is selection of the selection. And then, at the end, both our perspective and our interlocutors, is influenced by broader cultural, social, political, etc. context.

These facts should be a starting point in all social sciences and humanities research and interpretations. I agree with Roy Dilley that we cannot reach any final conclusion and/or solution of the problem of the context. The best we can do is to be aware of the problem[94] and try to take it into consideration in our research and interpretations. This means that we should not frame our hypothesis *a priori* based on our former knowledge, but rather include the knowledge of the people whose culture, practices or

93 Dilley, *The Problem of Context*, 35.
94 Ibid., 38.

phenomenon we are researching (Jackson 1989: 50;[95] Dilley;[96] Holy[97]). We have to try to grasp which contexts are relevant for them and what kind of meanings they are giving to our object of investigation. If we are trying to interpret and find a meaning in only one "relevant" context, we are actually preventing the multiplicity of the meanings it can have, and in that way making it inexplicable.[98]

References

Adler, Daniel. "Is Context a Problem?," *Proceedings of the Aristotelian Society*, 93 (1993): 279-296.

Adler, Daniel. "The Normativity of Context," *Philosophical Studies: An International Journal for Philosophy in the Analytic Tradition*, 100:3 (2000): 273-303.

Barnett, Clive. "Deconstructing Context: Exposing Derrida," *Transactions of the Institute of British Geographers*, 24:3 (1999): 277-293.

Ben-Amos, Dan. "Context" in Context," *Western Folklore*, 52:2 (1993): 209-226.

Ben-Amos, Dan. "Prema definiciji folklora u kontekstu," *Folkloristička čitanka*, Hameršak, Marijana i Suzana Marjanić, ured. Zagreb: Institut za etnologiju i folkloristiku; AGM, 2010., 121-139.

Dilley, Roy. *The Problem of Context* (Oxford; New York: Berghahn Books, 1999).

Dundes, Alan. "Tekstura, tekst i kontekst," *Folkloristička čitanka,* Hameršak, Marijana i Suzana Marjanić, ur. Zagreb: Institut za etnologi-

95 Jackson, *Paths Towards a Clearing: Radical Empiricism and Ethnographic Inquiry,* 50.
96 Dilley, *The Problem of Context*, 38.
97 Holy, "Contextualisation and Paradigm Shifts", 58.
98 Holy, "Contextualisation and Paradigm Shifts", 56. I have used these ideas and conclusions in my research, interpretations and writings several times, for example of some recent work see Katić, Mario. "Historical Contextualization of Oral Tradition," *Literary History* 158 (2016): 223-236; Katić, Mario. *Smrt u dalmatinskom zaleđu: mirila od rituala do teatra* (Zagreb: Naklada Ljevak, 2017.).

ju i folkloristiku; AGM, 2010. 91-107.

ENGEL, SUSAN. *Context is Everything: The Nature of Memory*. New York: W. H. Freeman and Company, 1999.

GOODMAN, LENN. "Context," *Philosophy East and West*, 38:3 (1988): 307-323.

HOLY, LADISLAV. "Contextualisation and Paradigm Shifts," *The Problem of Context*, Dilley, Roy (ed.). Oxford; New York: Berghahn Books, 1999, 47-60.

JACKSON, MICHAEL. *Paths Towards a Clearing: Radical Empiricism and Ethnographic Inquiry*. Bloomington: Indiana University Press, 1989.

KATIĆ, MARIO. "Historical Contextualization of Oral Tradition," *Literary History* 158 (2016): 223-236.

KATIĆ, MARIO. *Smrt u dalmatinskom zaleđu: mirila od rituala do teatra*. Zagreb: Naklada Ljevak, 2017.

LOZICA, IVAN. *Izvan teatra: teatrabilni oblici folklora u Hrvatskoj*. Zagreb: Hrvatsko društvo kazališnih kritičara i teatrologa, 1990.

MARZOLPH, ULRICH. "The Migration of Didactic Narratives across Religious Boundaries," *Didaktisches Erzählen*, R. Foster and R. Günthart, eds. Bern: Peter Lang, 2010, 173-188.

SMITH, GRAHAM. *The making of oral history: Sections 1-2*, http://www.history.ac.uk/makinghistory/resources/articles/oral_history.html.

VAN DIJK, TEUN. *Discourse and Context: A Sociocognitive Approach*. Cambridge: Cambridge University Press, 2008.

VAN DIJK, TEUN. *Society and Discourse: How Social Context Influences Text and Talk*. Cambridge: Cambridge University Press, 2009.

YOUNG, KATHERINE. "The Notion of Context," *Western Folklore*, 44, 2 (1985): 115-122.

RELEVANTNOST KONTEKSTA

Ključne riječi:
kontekst,
kontekstualizacija,
relevantni kontekst,
značenje konteksta

Sažetak

Uzimajući u obzir različite dostupne radove o kontekstu autor iznosi dvije važne činjenice bez kojih ne možemo raspravljati o kontekstu ili se njime koristiti kao analitičkim modelom: (1) Kontekst je nerazdvojivo povezan sa značenjem određenoga kulturnog fenomena ili prakse koji istražujemo. Promjenom konteksta mijenja se i značenje; (2) Relevantni kontekst koji koristimo u interpretaciji nekog kulturnog fenomena ili prakse rezultat je istraživačeva prethodnoga sa/znanja i značenja kojeg ona/on želi pronaći, odnosno hipoteze koju želi dokazati.
Autor tvrdi da moramo pokušati dokučiti koji su konteksti relevantni našim sugovornicima i koja značenja oni pridaju našim objektima istraživanja u njima relevantnim kontekstima. Jer, ako tražimo željeno značenje u samo jednom „relevantnom" kontekstu, time dokidamo mnogostrukost značenja koju istraživani objekt može imati, i samim time ga činimo zapravo neobjašnjivim.

GLAGOLITIC CONFRATERNITIES' BOOKS OF THE ZADAR AREA AND THEIR VALUE AS HISTORICAL DOCUMENTS

Grozdana Franov-Živković
Institute for Historical Sciences, Croatian Academy of Sciences and Arts, Zadar, Croatia

Keywords:
confraternities, codices (madrikula), books of accounts, everyday life, Monumenta glagolitica Archidioecesis Iadretinae, Digital Humanities

Abstract

Glagolitic confraternities' books are important sources for studying the everyday life of ordinary people as they are full of onomastic, demographic, sociological, historical and linguistic data. This article defines confraternities' records and problems in determining the name of a particular book. Distinctions can be made between the main book of the confraternity (madrikula, codex), books of accounts (kvaterani, notebooks), books of income and expenditures (datja i prijatja, prijaće i trošnje), treasury logs of the parish church with confraternity records, fishing cost statements, endowment records (knjige lašov, legata), records of debtors, books with various lists and annotations such as fascicles with lists of deceased brothers, and lists of judges, gastalds or procurators.

To determine the type of codex as well as the sequence of entries, it is important to know the historical context, as well as the operating mode of confraternities in general, and then thoroughly investigate the work of the confraternity to which the codex refers. It is only then possible to complete the sequence of pages of a damaged book, which will again after the restoration serve the scholarship of researchers from different areas. Thus, through the books of confraternities, complemented by docu-

ments preserved in various archival fonds, we can reconstruct the life of a particular village in the past.
The Confraternities' books are digitized within the project Digitization, bibliographic description and research of texts written in Glagolitic, Croatian Cyrillic and Latin scripts until the end of 19th century in the Zadar and Šibenik area (Written heritage).

In the Zadar area, remains of many confraternities' books have been found and preserved that are full of information for studying the everyday life of people. This paper deals with the different types of confraternities' books and issues of terminology and definition. Distinctions can be made between the main book of the confraternity (*madrikula*, codex), books of accounts (*kvaterani*, notebooks), books of income and expenditures (*datja i prijatja, prijaće i trošnje*), fishing cost statements, endowment records (*knjige lašov, legata*), records of debtors, treasury logs of the parish church with confraternity records, and books with various lists and annotations such as *fascicles* with a list of deceased brothers or a list of the confraternity members or a list of judges, gastalds or procurators. These codices and all other documents were written by priests who were the main promoters of literate culture, and they played an extensive role in educating the entire community as can be seen through their activities in confraternities.

Confraternities in General

Confraternities as civil and religious associations had to go through a certain procedure when they were founded to obtain permission from both civil and church authorities because their rules encompassed a wide range of charitable, political, cultural and other tasks and goals. In the Zadar area, confraternities were founded from the 12th century onwards. Venetian authorities did not interfere too much in confraternities' work, and the remaining manuscripts show (regardless of the lack of documentation) that not much attention was paid to the regular record keeping as most codices lack many minutes of the annual assemblies or records of income and expenditures, the latter being created primarily upon the transfer of funds at the annual assemblies. Records were not regularly kept because confraternities were often unofficially founded even before obtaining consent from the civil and church authorities,[1] and some were ex-

1 The Confraternity of Our Lady of Mount Carmel, Sutomišćica was officially founded on 31 December 1745. However, before it was officially established, the confraternity operated unofficially, as evidenced by an earlier record dated 1743 that has been preserved. Its use continued even after the opening of the official codex so there was a period when the minutes of the annual assemblies were kept in both

tinguished and later restarted.[2] In the Zadar area, there were many examples of termination and revival of confraternities throughout the 16th, 17th and 18th centuries, and also of the merging of several confraternities into one.[3] Almost every confraternity faced some kind of moral or financial crisis, as can be observed in their records. In the late 18th century, Austrian authorities started to abolish confraternities and directed their assets

codices simultaneously. See *Glagoljska madrikula Bratovštine Blažene Gospe i duš o purgatorija, 1743-1821* (Glagolitic Codex of the Confraternity of the Blessed Virgin and the Holy Souls of Purgatory); *Glagoljska madrikula Gospe od Karmena i Duš od Purgatorija* (Glagolitic Codex of the Confraternity of Our Lady of Mount Carmel and the Holy Souls of Purgatory), Sutomišćica, 1745 – 1821; Grozdana Franov-Živković, „Bratovštine (skule) župe sv. Eufemije u Sutomišćici na otoku Ugljanu u 18. stoljeću", *Zbornik Odsjeka za povijesne znanosti Zavoda za povijesne i društvene znanosti HAZU*, Vol. 27 (2009): 165-227.

2 Archives of the Zadar Archdiocese, *Glagoljska madrikula sv. Roka, Rava, 1764. - 1892.* (Glagolitic Codex of St. Rocco, Rava, 1764-1892); Franov-Živković, „Svakidašnji život na Ravi i poštivanje običaja ispunjavanja zadužbina (laši, legata) ravskog stanovništva, in Grozdana Franov-Živković, Ivica Vigato, *Glagoljske madrikula bratovštine sv. Roka 1764. – 1892.; Glagoljska kopija iz libra kvaterna 1769. – 1849., Riznica glagoljaške kulture i hrvatske pismenosti otoka Rave*, Monumenta glagolitica Archidioecesis Iadertianae, (Zadar: Stalna izložba crkvene umjetnosti and Sveučilište u Zadru, 2016), eds. Pavao Kero and Josip Faričić, 17, 18: The *Confraternity of St. Rocco existed before the year 1747, which is mentioned as the year of its establishment in the codex. Given that there are examples of confraternities being established and then extinguished after a certain time, it is likely that the school existed before. Namely, the first pages of the codex include four rules dating from earlier years, and the annual assembly of 1710 is mentioned. Probably the records of the confraternity were not kept regularly and accurately so that the brothers met again in 1747, established new rules and began keeping records of the confraternity from scratch. It can be assumed that the confraternity was founded after 1603, because it was not mentioned in Priuli's visitations. At the beginning of the codex, the old rules no. 12-15 were written, but there are two different rules no. 12. (one from the earlier codex and one from the new record).* Similar to the confraternities of Sutomišćica and Rava, see: Archive of the Zadar Archdiocese, *Glagoljska madrikula sv. Jakova* (Glagolitic Codex of St. Jacob), Soline, 1750 - 1826; Franov-Živković, "Glagoljska Madrikula sv. Jakova u Solinama (Dugi otok) od god. 1750. do 1826.", *Radovi Zavoda za povijesne znanosti HAZU u Zadru*, 51 (2009), 139.

3 In Vrsi, the Confraternity of St. Trinity merged with the Principal School of St. Michael. See Archives of the Zadar Archdiocese, *Glagoljska madrikula svetog Mihovila, Vrsi (kod Nina), 1700.-1822.* (Glagolitic Codex of St. Michael), Vrsi (near Nin), 1700-1822); Franov-Živković, „Bratovštine župe svetog Mihovila u Vrsima", *Vrsi kroz povijest* 2, (Vrsi: Matica Hrvatska – Povjereništvo Vrsi, 2015), 23-42.; Vladislav Cvitanović, "Glagoljska Madrikula sv. Mihovila u Vrsima (kod Nina)", *Radovi Instituta JAZU,* Zadar, sv. XIX, 187 – 243. Merging of the Confraternity of St. Peter from Bubnjane and St. John the Baptist of Tinj, see Local Heritage Museum of Biograd na moru, *Glagoljska Madrikula bratovštine sv. Petra i sv. Ivana Krstitelja u Tinju i Bubnjanima 1723. – 1767.* (Glagolitic codex of the Confraternities of St. Peter and St. Ivan the Baptist in Tinj and Bubnjane 1723-1767); Franov-Živković, "Bratovština (skula) župe sv. Ivana Krstitelja u Tinju i župe sv. Petra i Pavla u Bubnjanima u 18. stoljeću, *Radovi zavoda za povijesne znanosti HAZU u Zadru*", 53, (2011.), 163-187.; Franov-Živković, „Madrikula Bratovštine sv. Petra i ss. Ivana Krstitelja u Tinju i Bubnjanima 1723. – 1767." in *Glagoljska Madrikula bratovštine sv. Petra i sv. Ivana Krstitelja u Tinju i Bubnjanima 1723. – 1767.*; (Zadar: Stalna izložba crkvene umjetnosti, 2012).; VII – XII; [1] – [20], ed. Pavao Kero; In Kali, the Confraternity of St. Sacrament and the Principal School of St. Lawrence were merged in the 18th century. See articles by Franov-Živković, "O kaljskim bratovštinama u razdoblju od 14. do početka 20. st.", *Kali* (Zadar: Sveučilište u Zadru, Hrvatska akademija znanosti u umjetnosti, Općina Kali, 2017), 175-236.; Franov-Živković, „O kaljskim običajima od 15. stoljeća do početka 20. st.", *Kali* (Zadar: Sveučilište u Zadru, Hrvatska akademija znanosti u umjetnosti, Općina Kali, 2017), 237-274.

to finance cultural and educational activities. Some of the confraternities that were not abolished at that time were abolished by the French authorities at the beginning of the 19th century.[4] Other confraternities continued their work.[5] Some of the abolished fraternities were renewed in the mid-19th century but no longer had the role that they had performed before the 19th century.[6] In some cases there were tensions between ecclesiastical and secular authorities related to the confraternities' work.[7] Control was to some extent exercised by religious authorities in the form of visitations by the local archbishop or bishop.[8]

The founders of confraternities were mostly prominent villagers, representatives of civil, military (police) and religious authorities, as well as members of the councils of the elders (remnants of the old Croatian customary law).[9] At the founding assembly of a confraternity, the founders voted for the *kapituli* (rules) to which all confraternity members would

4 Alojz Štoković, „Bratovštine na istočnoj obali Jadrana, Prilog proučavanju socijalne povijesti na Sredozemlju od XI. do XVII. stoljeća," *Vjesnik DAR*, 47-48/, 2006-2007, 142, 143; Hubert Jedin, *Velika povijest crkve*, V, (Zagreb: Kršćanska sadašnjost, 1978), 435, 436.

5 Franov-Živković, "O kaljskim bratovštinama", 175-236.; Carlo Frederico Bianchi, *Kršćanski Zadar*, II. dio, (Zadar: Zadarska nadbiskupija i Matica hrvatska Zadar, 2011), 104-107; Archives of the Zadar Archdiocese, *Glagoljska madrikula sv. Sakramenta* (*Glagolitic Codex of the Blessed Sacrament*), *Kali, 1675 until today*.

6 See Franov-Živković, "O kaljskim bratovštinama", 175-236.; Archives of the Zadar Archdiocese, *Glagoljska madrikula Gospe od Luzarija* (Glagolitic Codex of Our Lady of the Rosary), *Kali, 1619 – 1733*; *Glagoljska madrikula skule sv. Trojstva* (Glagolitic Codex of School of St. Trinity), *Kali, 1683 - 1807 and 1857 until today*; *Glagoljska madrikula sv. Križa* (Glagolitic Codex of St. Cross), *Kali, 1717 - 1807, and 1857 until today*; *Glagoljska madrikula Gospe 7 žalosti* (Glagolitic Codex of Our Lady of the Seven Sorrows), *Kali, 1729 - 1807, and 1858 until today*; *Glagoljska madrikula Bratovštine sv. Ante* (Glagolitic Codex of the Confraternity of St. Anthony*), Vinjerac, 1725 – 1820;* Ljubač, *Glagoljska madrikula Bratovštine sv. Josipa (*Glagolitic Codex of the Confraternity of St. Joseph), *1776 – 1825*

7 Archives of the Zadar Archdiocese, *Glagoljska madrikula svetog Mihovila, Vrsi (kod Nina), 1700. – 1822*. (Glagolitic Codex of St. Michael, Vrsi (near Nin), 1700-1822); Franov-Živković, „Bratovštine župe svetog Mihovila u Vrsima", *Vrsi kroz povijest* 2, (Vrsi: Matica Hrvatska – Povjereništvo Vrsi, 2015), 23-42.

8 Archives of the Zadar Archdiocese, Funds: *Vizitacije ninske biskupije* (Visitations of the Nin Diocese) vol. 1-3; *Vizitacije Zadarske nadbiskupije* (Visitations of the Zadar Archdiocese), vol. 1-3; Oliver Modrić and Josip Kolanović, *Vodič Arhiva Zadarske nadbiskupije*, (Zadar: Državni Arhiv Zadar i Zadarska nadbiskupija, 2013).

9 Franjo Smiljanić, *Studije o srednjovjekovnim Slavenskim/Hrvatskim institucijama*, (Zadar: Sveučilište u Zadru, 2010); Smiljanić, „Novi pogledi na običaj biranja seoskog kralja na zadarskim otocima", *Zbornik otok Rava*, (2008), 439-443.; Franov-Živković, „Glagoljski mandat iz 1750. o postrojavanju teritorijalnih snaga zadarskih otoka", *Zbornik Odsjeka za povijesne znanosti Zavoda za povijesne i društvene znanosti HAZU u Zagrebu,* 33/ 2015., 199-215.; Franov-Živković, „Društveni položaj pripadnika mletačkih teritorijalnih snaga (černida) sa zadarskog područja u 17. i 18. stoljeću na temelju glagoljskih matičnih knjiga i ostalih dokumenata", *Acta Histriae,* 26, 2 (2018), 473-502. Accessed July 13, 2018. http://zdjp.si/wp-content/uploads/2018/10/AH_26-2018-2_Živković.pdf.

adhere. The number of articles in the rules was different in different confraternities. In rare cases, the rules were completely copied from other confraternities. Such a case has been found so far only in Preko and Sutomišćica.[10] The number of members in a confraternity also depended on mutual agreement. A confraternity could have a limited or unlimited number of members, just as it would depend on mutual agreement whether it would be mixed or only male or female, or just a priestly confraternity. New members of a confraternity could be admitted by succession "*na sviću*," upon the proposal of a candidate by the other brothers, or at a candidate's request to enter the confraternity; in the two latter cases, all the brothers at the annual assembly voted (by ballot) as to who of the brothers would be admitted to the confraternity. If a person wanted to leave the confraternity, he would have to pay a penalty. In elite confraternities, such as priestly ones, we found the waiting lists for admission to the confraternity called *prokura*. In the process of ballot (voting) the brothers decided who would enter the confraternity. In confraternities, in most cases the number was limited so that many people from the list (*prokura*) never managed to enter.[11]

In the rules entered at the beginning of a codex, it was determined who would be members of the confraternity's governing body and in what way the election to that administrative body would be made, and some codices included the records of the elected elders' duties and the penalties for non-fulfilment of those duties. The number and the names of the confraternity administrative bodies' members differ from one fraternity to another, and the way of electing the members of administrative bodies

10 Until 1770, the Parish of St. Euphemia in Sutomišćica covered the villages of Preko, Poljana and Sutomišćica, so that the inhabitants of these villages joined the common confraternities. After the establishment of the Parish in Preko in 1770, a confraternity was established in Preko on 17 June of the same year that had the same name as that in the Parish of St. Euphemia: Confraternity of Our Lady of Mount Carmel and the Holy Souls of Purgatory. The rules of the confraternity of Sutomišćica bearing the same name were used a template for their rules. See articles Franov-Živković, „Bratovštine (skule) župe sv. Eufemije u Sutomišćici", 165-227.; Franov-Živković, „Bratovštine (skule) župe Blažene Gospe od Ruzarija u Preku na Otoku Ugljanu u 18. st. i 19. st.", *Radovi zavoda za povijesne znanosti HAZU u Zadru,* 52, (2010), 231-259.

11 State Archives in Zadar, *Biogradska glagoljska madrikula Bratovštine Uznesenja Blažene Djevice Marije 1720. - 1841.,* (Glagolitic Codex of the Confraternity of the Assumption of the Blessed Virgin Mary in Biograd, 1720-1841); Franov-Živković, "Biogradska glagoljska madrikula Bratovštine Uznesenja Blažene Djevice Marije 1720. - 1841.", in *Biogradska glagoljska madrikula Bratovštine Uznesenja Blažene Djevice Marije 1720.-1841.,* (Zadar: Stalna izložba crkvene umjetnosti, 2012), VII – XV, ed: Pavao Kero.

is also different. In most confraternities, the election was conducted by voting (ballot) by all members of the confraternity; sometimes the chief judge was elected, who then would elect his assistant(s),[12] and sometimes new judges would be elected by the old judges.[13]

The rules prescribe that all brothers must gather together upon the death of one of the members, the mass must be chanted and the candles lighted, and a mass must be chanted on All Souls' Day for all the deceased brothers. There are also defined ways of bell tolling if a brother passes away and the duty of the *gastald* is to inform all brothers and sisters at their homes that a brother is deceased. The rules prescribe the arrangements for the funeral service of dead brothers, who is to organize the funeral, how many masses should be given by each brother (sister) for the dead brother, the way of praying for the dead brothers and the requirement that every member must have a certificate (policy, license) as evidence that he or she has performed all their obligations. The priests who are members of the confraternity determine the number of masses they should hold for the dead brothers.

Although there was a provision that every person could only be a member of one confraternity,[14] many parishioners were members of several confraternities at the same time and participated in their governing bodies. In each village there was the main confraternity (*Vela skula*, "principal school"), which was linked to the main parish church and bore the name of the main patron saint of the village. It was the leader of the progress of the whole village, participated in the construction of all major infrastructure projects in

12 Archives of the Zadar Archdiocese, *Glagoljska madrikula svetog Mihovila, Vrsi (kod Nina), 1700. – 1822.* (Glagolitic Codex of St. Michael, Vrsi (near Nin), 1700-1822); Franov-Živković, „Bratovštine župe svetog Mihovila u Vrsima", 23-42.; Archives of the Zadar Archdiocese, Ljubač, *Glagoljska madrikula Bratovštine sv. Josipa 1776. – 1825.* (Glagolitic Codex of the Confraternity of St. Joseph, 1776-1825); Blaga Bunčuga, Pavao Kero, Marija Kero, *Glagoljska madrikula bratovštine Sv. Josipa župe Svetog Martina u Ljupču 1776. – 1818.* (Zadar: Stalna izložba crkvene umjetnosti, Sveučilište u Zadru 2017), eds: Pavao Kero and Josip Faričić.

13 Local Heritage Museum of Biograd na moru, *Glagoljska Madrikula bratovštine sv. Petra i sv. Ivana Krstitelja u Tinju i Bubnjanima 1723. – 1767.* (Glagolitic Codex of the Confraternity of St. Peter and St. John the Baptist in Tinj and Bubnjane, 1723-1767); Franov-Živković, "Bratovština (skula) župe sv. Ivana Krstitelja u Tinju i župe sv. Petra i Pavla u Bubnjanima", 163-187.; Franov-Živković, „Madrikula Bratovštine sv. Petra i ss. Ivana Krstitelja u Tinju i Bubnjanima 1723. – 1767.", VII – XII; [1] – [20].

14 Juraj Batelja, *Povijesne crtice o Zadarskoj nadbiskupiji u prvoj polovici 20. stoljeća, Euharistijski kongresi u Preku (1925.) i Benkovcu (1938.), Zadarska trilogija,* Part II, (Zadar: Zadarska nadbiskupija, 2014), 66: *Legal aspect of the confraternity life became even more prominent in 1604 when Clement VIII with his Constitution Quaecumque subordinated all confraternities to bishops' authority and determined the laypeople may be registered in only one confraternity.*

both the church and the village, and promoted all major cultural, political, charitable, etc. events in the village. It had a higher income than other confraternities, more property (land for cultivation), its cemetery,[15] furniture, church supplies, ecclesiastical books, and so forth.[16] Smaller confraternities were organized around some individual altars and small chapels. For some villages in the Zadar area, there were records of several confraternities[17] (e.g., Sukošan (8), Pašman (7), Sali (5), Tkon (4), Kali (5), etc.).

Confraternities' Records

Confraternities' codices (madrikula)[18] contain the rules (*kapituli*), and lists of founders and new members, sometimes with a note on the manner of admission of a person into the confraternity (succession or ballot)[19] and

15 Archives of the Zadar Archdiocese, Sutomišćica, *Knjiga primitaka i izdataka Bratovštine Sv. Sakramenta 1765. – 1803* (Record of Income and Expenditures of the Confraternity of the Blessed Sacrament 1765 – 1803), The book includes the list of graves and those buried in church graves; see more in Franov-Živković, „Bratovštine (skule) župe sv. Eufemije u Sutomišćici“, 165-227.; Franov-Živković, "O kaljskim bratovštinama", 175-236.

16 Petar Runje, *Duhovni život na zadarskim otocima u kasnome srednjem vijeku*, (Zadar: Gradska knjižnica Zadar, 2008); Runje, *Glagoljica u zadarskoj nadbiskupiji u srednjem vijeku*, (Zadar: Gradska knjižnica Zadar, 2005).; Runje, O *knjigama hrvatskih glagoljaša*, (Zagreb: Provincijat franjevaca trećeredaca, Kršćanska sadašnjost, 1998); Runje, „O knjigama glagoljaša u drugoj polovici 14. i u 15. stoljeću u Zadarskoj nadbiskupiji“, in *Iskoni be slovo*, (Zagreb: Provincijat franjevaca trećeredaca, Kršćanska sadašnjost, 2001, 57 - 67.

17 Pavao Kero, *Popis glagoljskih kodeksa zadarske nadbiskupije*, (List of Glagolitic Codices in the Zadar Archdiocese), (Zadar: Stalna izložba crkvene umjetnosti, 2008), the first edition; Pavao Kero, *Popis glagoljskih kodeksa zadarske nadbiskupije*, (Zadar: Stalna izložba crkvene umjetnosti, Sveučilište u Zadru, 2015), eds. Pavao Kero i Josip Faričić, the second edition. Some books are lost today.

18 The confraternities' codices that include rules are recorded (according to Kero, *Popis glagoljskih kodeksa u Zadarskoj nadbiskupiji* (List of Glagolitic Codices in the Zadar Archdiocese, 2015): Banj (2); Biograd na moru (1); Božava (1); Brbinj (1); Dobropoljana (1 – in the List of Glagolitic Codices, page 25, it was by mistake recorded as the Glagolitic Treasury Log 1739 – 1798. There are not many entries of income and expenses, but it mostly includes rules, list of founders, list of brothers, and minutes of the annual assemblies, i.e., it is the codex of the Confraternity of St. Cross); Kali (4); Kukljica (2); Ljubač (1); Molat (1); Olib (2); Pašman (5, provided the Codex of St. Anthony the Abbot 1767 – 1818 is the second codex of the Confraternity which includes the rules copied from the first codex in 1519); Polača (1); Preko (1); Premuda (1); Rava (1); Sali (2); Sestrunj (1); Soline (1); Sukošan (5); Sutomišćica (3); Sveti Filip i Jakov (1); Tinj and Bubnjane (1); Tkon (2); Ugljan (1);Veli Iž (2); Vinjerac (1). Confraternities' codices without rules: Banj (2), Bibinje (1); Diklo (1); Dragove (2); Kali (1); Kožino (1); Kukljica (1); Olib (2); Pašman (3); Sali (3); Sukošan (4); Sutomišćica (1); Tkon (2); Veli Iž (1); Vrsi (1); Zaglav (1); Žman (1). Some of these books have been lost, others are kept in the Archives of the Zadar Archdiocese, as well as some in the State Archives in Zadar and some in the Archives of the Croatian Academy of Sciences and Arts.

19 Franov-Živković, „Bratovštine (skule) župe Blažene Gospe od Ruzarija u Preku“, 231-259.

the amount of the membership fee each new brother had to pay when joining (in money or in kind). *Madrikula* also contained minutes of the annual assemblies together with minutes of auctions (*kanta*) held after the second day of the assembly. Some codices include other records: income and expenditures, various debtors' lists, endowments, last wills and testaments and other records. Some codices include records of several fraternities at once, sometimes with those records separated one from another such as Božava[20] and Molat.[21]

Confraternities' books of accounts (kvaterani**, notebooks)**[22] include various notes regarding the work of confraternities, such as minutes of the annual assemblies, income and expenditures, last wills and testaments related to endowments (*laše*), contracts for sale or donation of land to the confraternity, and orders and circular letters of church and civil authorities and others.

a) This may be the second book of a confraternity, opened after the first *madrikula* is completely filled. It may include all the records similar to those in the main book of the confraternity, such as the list of members, but also minutes of the annual assemblies. It does not include any information on the founding of the confraternity or rules (*kapituli*) and no founders' lists, except in rare cases when rules are copied, and then it is especially emphasized that it is a copy from the old *madrikula*. A problem may arise if the rules fall out of the first codex or if the codex is incomplete (damaged, missing parts) so we cannot determine whether it is the first codex with the rules or the second one where the rules were not sup-

20 Archives of the Zadar Archdiocese, *Božava, Glagoljska madrikula Bratovštine sv. Nedilje 1712. – 1836.* (Glagolitic Codex of the Confraternity of St. Domenica 1712 – 1836). It consists of separate records of three confraternities: St. Domenica, St. Bartholomeus, St. Spirit. See article Franov-Živković, „Uloga crkvenih bratovština u svakidašnjem životu Velog Rata, Verone i Polja u 17. i 18. stoljeću", *Veli Rat*, (Zadar: Sveučilište u Zadru, 2013), 291-308.

21 Archives of the Zadar Archdiocese, Molat, *Glagoljske madrikule 1630.-1757.* (Glagolitic Codices 1630-1757) consist of four parts, i.e. four codices: Codex of the Confraternity of the Blessed Lady of Mount Carmel, 1630; Confraternity of the Blessed Sacrament and Confraternity of St. Mary Mother of Mercy for Brgulje 1757, Confraternity of St. Michael, 1746; Confraternity of the Holy Rosary (Kero, *Popis glagoljskih kodeksa* (List of Glagolitic Codices), 2015, 40).

22 Preserved for the following villages: Brbinj (2); Olib (2); Preko (1); Radošinovci (1); Rava (1); Vlašići (1); Vrgada (1). (Kero, *Popis glagoljskih kodeksa* (List of Glagolitic Codices), 2015).

posed to be entered.

b) On the other hand, it can be a book of accounts kept in parallel with the main book of the confraternity. It may also include various other data. These books of accounts can refer to one or more confraternities and may contain common records of one or more confraternities and church accounting records. This is especially the case with *Vele skule* (principal schools), the main confraternities in a village that were joined by a large number of villagers, sometimes the entire village.[23]

Records of income and expenditures (datja i prijatja**,** prijaće i trošnje)[24] include only the revenues and expenditures of confraternities. Sometimes the entire record of income and expenditures is erroneously called *madrikula* (see Olib, Sutomišćica).[25] In one of the books of income and expenditures of the parish of Sutomišćica we found a list of graves (*Popis pogrebica*)[26] including the list of graves with burial plots and the list of deceased persons buried in those graves.

The treasury log of the parish church with the records of confraterni-

23 An example is the Confraternity of the Blessed Sacrament in Kali. See: Bianchi, *Kršćanski Zadar*, 104-107: *The Confraternity of the Blessed Sacrament, which in 1808 was joined by two hundred brothers. Since 9 December 1821, the whole community participates in the confraternity*. Franov-Živković, "O kaljskim bratovštinama", 175-236.

24 The following Books of Income and Expenses have been preserved: Archives of the Zadar Archdiocese, *Knjiga prihoda i rashoda župe Murvica, XVIII. – XIX. st.* (Book of Income and Expenses of the Parish of Murvica, 18th – 19th century); Archives of the Zadar Archdiocese, *Računi Bratovštine duš od purgatorija, Olib, 1723. – 1750.* (Accounts of the Confraternity of the Holy Souls of Purgatory, Olib, 1723 – 1750); Archives of the Zadar Archdiocese, *Sali, Glagoljska knjiga rashoda 1709. – 1876.* (Glagolitic Book of Expenditures, 1709-1876); Archives of the Zadar Archdiocese, Tkon, *Glagoljsko-latinička knjiga primitaka i izdataka 1793.-1846.* (Glagolitic-Latin Book of Income and Expenditures); State Archives in Zadar, *Zadar, Knjiga prihoda i rashoda bratovštine sv. Antuna opata* (Book of Income and Expenses of the Confraternity of St. Anthony the Abbot) (Kero, *Popis glagoljskih kodeksa* (List of Glagolitic Codices) 2015).

25 Archives of the Zadar Archdiocese, *Glagoljska madrikula Bratovštine Gospe od Luzarija i Karmena u Olibu 1684. – 1793.* (Glagolitic Codex of the Confraternity of Our Lady of the Rosary and Mount Carmel in Olib 1684-1793) contains only income and expenses of this confraternity, so that instead of *Madrikula* it should be named Book of Income and Expenses. It is the same situation with the three books of confraternities of St. Euphemia, Holy Souls of Purgatory and Corpus Christi in Sutomišćica; Books that include only income and expenses and are named as such are found in Pašman *Libar dobitka Sv. Marije 1747. – 1820.* (Book of Receipts of St. Mary 1747 – 1820) and three books in Sutomišćica.

26 Archives of the Zadar Archdiocese, Sutomišćica, *Knjiga primitaka i izdataka Bratovštine Sv. Sakramenta 1765. – 1803.* (Book of Income and Expenses of the Confraternity of the Blessed Sacrament 1765 – 1803). The book includes the List of graves and those buried in church graves; Franov-Živković, „Bratovštine (skule) župe sv. Eufemije u Sutomišćici", 165-227.

ties – occasionally the records with the rules of a confraternity are joined to the treasury log of the church itself.[27]

Fishing cost statements[28] recorded sales and earnings from fishing, concessions on fishing areas, drawing of lots.

Books of endowments (laše, legata)[29] include the lists of the endowments of confraternity members and also of people who are not members of the confraternities.

Debtors' records[30] – special booklets written in two manners. The first type included a list of all debts of a particular member of the confraternity, by their names or by their households. Others include lists conducted by households or by names of household patrons.

Books with various lists and notes.[31] These are various lists and records on individual sheets, mutually different, which have been collected and

27 Example: Archives of the Zadar Archdiocese, *Glagoljski blagajnički dnevnik župne crkve u Brbinju 1706.-1807*. (Glagolitic Treasury Log of the Parish Church in Brbinj, 1706-1807) includes the rules of the School of Corpus Christi (the Blessed Sacrament) of 1663. In addition to these rules, the book also includes entries pertaining to other confraternities: St. Spirit, St. Rocco, Blessed Virgin Mary, Blessed Sacrament; records of these confraternities are not preserved at all and the mentioned *Treasury Log of the Parish* is also lost; See: Archives of the Zadar Archdiocese, *Ist, Glagoljska knjiga dobara crkve sv. Nikole 1727.-1854*. (Glagolitic Book of Assets of the Church of St. Nicholas 1727-1854). This book of assets includes records about the confraternities of Ist. In Olib, such book is named *Glagoljski kvateran prokuraturov župne crkve 1766.-1784*. (Glagolitic Book of Accounts of Procurators of the Parish Church 1766 – 1784). The procurators were trustees i.e. persons in charge of activities of a church. The List of Glagolitic Codices (*Popis glagoljskih kodeksa*), 2015, p. 53 reads: *Such book is called „libar od fontiga" as the Glagolitic book of accounts of Our Lady of the Rosary reads: What a person is due to pay was written in „libar od fontiga" in 1765 (p. 28)*"; Archives of the Zadar Archdiocese, Sestrunj, *Glagoljski blagajnički dnevnik župne crkve sv. Petra 1799. – 1826*. (Glagolitic Treasury Log of the Parish Church of St. Peter, 1799-1826). This treasury log recorded the operations of the confraternity of Our Lady of Good Health; Archives of the Zadar Archdiocese, Žman, *Glagoljski kvateran crkve sv. Ivana Krstitelja 1757. – 1843.* (Glagolitic Book of Accounts of the Church of St. John the Baptist, 1757 – 1843). This book of accounts mentioned the confraternity of St. Spirit. There is a number of treasury logs of St. Paul's Monastery in Školjić or of St. Michael's Monastery in Zaglav without any notes about confraternities. (Kero, *Popis glagoljskih kodeks*a (List of Glagolitic Codices, 2015, 67 – 70 and 130). There are also *Računi don Pere Pletikose 1815.-1816*. (Accounts of Don Pero Pletikosa 1815-1816) recorded as a supplement to the archives of Benedictine Abbey of St. Cosmas and Damian in Tkon.

28 Archives of the Zadar Archdiocese, Vrgada, *Glagoljski ribarski troškovnik* (Glagolitic Fishing Cost Statement).

29 Archives of the Zadar Archdiocese, Olib, *Glagoljski libar legatov 1755.-1874*. (Glagolitic Book of Endowments 1755-1874); Archives of the Zadar Archdiocese, *Libar lašov crkve Svete Marije, Sali* (Book of Endowments of St. Mary's Church in Sali). Sometimes, the lists of endowments (*laši*) are found in some other codices such as Kali *Godovi* where endowments are recorded by households and by individuals at the end of the book.

30 Archives of the Zadar Archdiocese, Pašman, *Glagoljski libar dužnika Sv. Marije 1766.-1809*. (Glagolitic Book of Debtors of St. Mary 1766-1809); Archives of the Zadar Archdiocese, Sutomišćica, *Libar di se pišu oni ki fale i ki ostaju dužni 1767. – 1804.* (Book of Defaulters and Debtors, 1767-1804).

31 Archives of the Zadar Archdiocese, Olib, *glagoljske bilješke 1575. – 1605*. (Glagolitic Notes 1575-1605)

bound into a single book. Thus, we find **Fascicles with a list of deceased brothers**[32] – which besides the list of brothers who passed away may also contain penalties for those brothers who failed to appear at the funeral or perform any other duty toward their dead brothers as prescribed in the rules. **The list of judges,** gastalds**, procurators** for the parish of Sutomišćica has 46 pages.[33]

Records on confraternities' activities can be found in vital records, missals and breviaries, on separate sheets in various fonds of the State Archives in Zadar and the Archives of the Zadar Archdiocese.

The Confraternities' books are digitized within the project *Digitization, bibliographic description and research of texts written in Glagolitic, Croatian Cyrillic and Latin scripts until the end of 19*th *century in the Zadar and Šibenik area (Written heritage)*. Head of the project is Assistant Professor Marijana Tomić, PhD.

The project is being carried out at the University of Zadar by the Department of Information Sciences in co-operation with Vestigia Manuscript Research Centre of University of Graz, Austria. The associates come from several departments of Zadar University as well as from Croatian and European institutions interested in different aspects of manuscripts (particulary of text written in Glagolitic and Croatian Cyrillic (called *Bosančica*) scripts), early printed books research, information sciences and digital humanities. It is supported by the Ministry of Culture of the Republic of Croatia, the Croatian Academy of Arts and Humanities and the Universities of Graz and Zadar.[34]

32 Sutomišćica, *Libar di se pišu oni ki fale i ki ostaju dužni 1767.-1804.* (Book of Defaulters and Debtors, 1767-1804).

33 Archives of the Zadar Archdiocese, *Popis sudaca, gaštalda, prokaratura raznih bratovština župe Sutomišćica 1699. – 1821.* (List of Judges, *Gastalds*, Procurators of Various Confraternities of the Sutomišćica Parish 1699-1821).

34 „Pisana baština: portal digitalizirane hrvatske pisane baštine zadarsko-šibenskog područja", Accessed July 13, 2018. https://pisanabastina.unizd.hr/.

Glagolitic Confraternities' Books and their Value as Historical Documents

Confraternity books are full of information on the everyday life of the population from earlier periods. The everyday life of people in history is increasingly studied by historians and other scholars (sociologists, ethnologists, art historians, literary historians and other researchers).

The major problem in researching historical everyday life is the lack of written sources,[35] which stems from the fact that most documents are not preserved. Even more important is the fact that most people were illiterate, so that only a small part of the literate population was able to record individual events, while the memory of the rest of the population was based on the oral tradition. Individuals who were better off were able to document certain moments of their lives, for example, writing their last will and testament (they could afford to pay for scribes, notaries, and had property they could bequeath) or initiate litigation related to their personal status or property. The poorest sections of the population, with the exception of information that is captured in vital records and confraternities' books or records of a crime committed, remain largely forgotten in the past. That is why these Glagolitic priests' records are important for the history of a particular village. They, as members of the community in which they were born themselves, made records of their neighbours, either in special notebooks, on the margins of other codices, or even on the margins of printed missals and breviaries. The entries in the vital records and books of confraternities are not written in a matter-of-fact, purely administrative way, but they still include various descriptions or even expressions of feelings, from which we can deduce the life of the individuals to whom they relate.[36] They include inscriptions not only about the important persons in

35 Franov-Živković, „Društvena slika ugljanskih sela od 15. do 18. stoljeća prema podacima iz glagoljskih vrela", PhD diss, Sveučilište u Zadru, 2013; Carl Ginzburg, *Sir i crvi, kozmos jednog mlinara iz 16. st.*, (Zagreb: Grafički zavod Hrvatske, 1989); Peter Burke, *Junaci, nitkovi i lude, narodna kultura predindustrijske Europe*, (Zagreb: Školska knjiga, 1991); Peter Burke, *Istorija i društvena teorija*, Beograd: Equilibrium, 2002); Peter Burke, Što je kulturalna povijest?, (Zagreb: Antibarbarus, 2006); Marc Bloch, *Apologija historije ili zanat povjesničara*, (Zagreb: Srednja Europa, 2008); Bloch, *Feudalno društvo*, (Zagreb: Golden marketing, 2001); Bloch. „Za komparativnu historiju europskih društava", in: *Uvod u komparativnu povijest*, (Zagreb: Golden marketing, - Tehnička knjiga 2001), 37-64.

36 Read more in Franov-Živković, „Društvena slika ugljanskih sela od 15. do 18. stoljeća prema podaci-

the village, such as village heads (judges), captains or other officers of the territorial forces, members of the councils of the elders, priests and other monks, landowners and the like, but also about members of the marginal groups such as women, the poor, the sick, orphans, and others.

The Glagolitic priests lived similar daily lives to those of their fellow villagers, but they were literate and aware that events must be recorded. As there were not many literate people (Puhov, *Vizitacije potpis skapetana sela* (Visitation List of Village Captains…),[37] they were the promotors of the literate culture of their surroundings, especially in terms of documents written in Croatian language and Glagolitic script. These documents provide a partial image of a village in the past, as well as an image of individuals (regardless of their wealth), entire families and the entire society to which they belonged. The very presence of the Glagolitic priests made the population aware that they should write down their last wills and testaments (the last wills that were recorded by the Glagolitic priest, and so the person who recorded them did not need to be paid, or at least not paid in full as was the case with the last wills recorded by a Zadar notary),[38] make various agreements in written form, etc.

The life of a village included involving all the locals in various confraternities and active participation in their activities. In the confraternities' books we find economic records of confraternity business, such as the agricultural crops they grew or livestock they bred, where they used to sell them, whether the year was fertile or poor, as well as different weather conditions. There are records of investments such as building and restoring churches, fraternal courts, altars and church inventories, wells, roads, clearing the village and everything else that was needed for a quality common life. Significant events in the village were recorded, such as arrivals of archbishops, visitators or other church dignitaries, the consecration of the

ma iz glagoljskih vrela", PhD diss, Sveučilište u Zadru, 2013.

37 Archives of the Croatian Academy of Sciences and Arts, IV a 80/17; IV a 80/41; IV a 80/39; IV a 80/10.

38 Tomislav Raukar, *Hrvatsko srednjovjekovlje*, (Zagreb: Školska knjiga, 1997), p. 245 wrote the following about the last wills: *„hundreds and hundreds of preserved LAST WILLS AND TESTAMENTS were written in the matter-of-fact language of notary forms which makes it difficult to access the spiritual life of individuals. Are we allowed at all to touch a human's sensitivity in their twilight years if the last will says nothing about it directly"*. It was exactly in the last wills and testaments written in the Glagolitic script by village priests that we find the feelings of the dying person and much private data that would not be found in the last wills recorded by notaries.

church, or the common sacrament of confirmation. The confraternities' books include many interesting things from the daily life of a village such as accidents, scandals, quarrels, government changes, traveling to other brethren and pilgrimages, endowments (*laše*), purchase and donation agreements, litigation, mutual support of confraternity members, loans, debts, and other matters.[39] The confraternities' books show various civil and religious customs prevailing in certain regions.[40]

Thanks to the efforts of the Glagolitic priests, the writers of these manuscripts, as well as those who have contributed to the preservation of these documents by their efforts, there are many documents from the entire Zadar area covering the issues of everyday life of the rural population, unlike in some other areas.[41] Documents preserved from the area of the Zadar islands are particularly numerous.

Discovery and Restoration of Glagolitic Confraternities' Codices and other Documents

Many of these confraternities' codices and other volumes of the Zadar area were found in very poor condition and needed reconstruction and arrangement before restoration. This enormous job was done in the Zadar area by Monsignor Pavao Kero, Ph.D. In most of the books found in parish houses or privately owned, there were no marked pages, and it was a major problem to arrange a book in chronological or any other sequence. They had to be compared with other confraternities' books to identify the sequence of the entries and the way in which they were composed. After determining the sequence of entries, the book was sent to restoration.

A) The sequence of entries in most Glagolitic confraternities' codices is the following:[42]

39 Franov-Živković, "O kaljskim bratovštinama", 175-236.; Franov-Živković, „O kaljskim običajima, 237-274.

40 Franov-Živković, "O kaljskim bratovštinama", 175-236.; Franov-Živković, „O kaljskim običajima, 237-274; Franov-Živković, „Glagoljski mandat iz 1750.", 199 – 215.

41 Franov-Živković, „Društvena slika ugljanskih sela od 15. do 18. stoljeća prema podacima iz glagoljskih vrela", PhD diss, Sveučilište u Zadru, 2013; Ginzburg, *Sir i crvi*; Burke, *Junaci, nitkovi i lude*; Burke, *Istorija i društvena teorija*; Burke, Što je kulturalna povijest?; Bloch, *Apologija historije ili zanat povjesničara*; Bloch, *Feudalno društvo*; Bloch. „Za komparativnu historiju europskih društava", 37-64.

42 In some books that had the role of the second codex, when the rules are copied from an earlier codex,

1. Rules (*kapituli*) - At the beginning of the codex, when the confraternity is founded, the *kapituli* (rules) are written down. Blank pages or blank sections are later filled in with rules that were subsequently voted upon.
2. List of brothers - A list of confraternity founders is recorded following the rules. In most of the codices, the sequence is such that first monks are listed, followed by male and then by female members of the confraternity. After the founders, names are added by dates of entry into the confraternity, either to these lists or, if filled, new lists are made.
   In some of the codices, all members of the confraternity were listed together (male, female, and *monastic*) on a single list by sequence (date) of entry in the confraternity.[43]
   In addition to the first name and surname of the confraternity member, in the majority of confraternities the amount of the membership fee in cash or in kind was entered.
3. Minutes of the annual assemblies contain records on the election of the administrative body of the confraternity, on the transfer of funds from the past years, the lists of debtors from the past year(s), auctions (*kanti*) and other matters.
4. At the end of the book (sometimes scattered throughout the book) there are various entries, donation agreements, endowments, sales contracts, orders of civil and religious authorities related to the work of the confraternity (or confraternities in general), and records of major investments (purchase of altars, restoration of churches, confraternity houses (confraternity court), purchase of church furniture or other items), or loans.

B) Books of accounts (*kvaterani*) could be kept in two ways:[44]

the rules may be in the middle or at the end of the book.

43 Franov-Živković, „Bratovštine (skule) župe Blažene Gospe od Ruzarija u Preku", 231-259; Archives of the Zadar Archdiocese, *Glagoljska madrikula Bratovštine duš od purgatorija 1770. – 1819.* (Glagolitic Codex of the Confraternity of the Holy Souls of Purgatory, 1770-1819); Archives of the Zadar Archdiocese, *Glagoljski kvateran Bratovštine Gospe od Luzarija, 1778. – 1845.* (Glagolitic Book of Accounts of the Confraternity of Our Lady of the Rosary, 1778-1845.

44 See chapter 2 above.

- A *kvateran* may be the second book of the confraternity that was opened after the first codex was filled. It contains everything contained in the first book of the confraternity except the rules (*kapituli*).

- Most books of accounts consist only of a list of receipts and expenditures, followed by a list of auctions (*kanta*) and a list of debtors. Debts can be recorded by brothers [45] or by households.[46]

Example of the discovery of a book of accounts (kvateran) in Radošinovci

When the *kvateran* of Radošinovci was found in a private house in Sali, with its covers heavily damaged by fire and unbound, the sheets disordered and mostly damaged, many sheets with a part missing or more precisely, and mostly only a small piece of a sheet preserved, it was necessary to first determine to which type of Glagolitic codex it belonged, and then to try arrange the sequence of the sheets without pagination. The sheets had to be classified by groups in the way a book of accounts should be arranged or compared with other available books of accounts.

First, we identified the name of the *kvateran*, that is, the village to which it belonged. Considering it was found in Sali, logically one might come up with the conclusion that this was the book of accounts for the parish of Sali. However, by reading the Glagolitic notes it was concluded that the *kvateran* must be from Radošinovci, and that it was a combination of church accounts and the accounts of the confraternity of St. Anthony of Padua from Radošinovci. After reading the data, a reason emerged as

45 Pavao Kero, Grozdana Franov-Živković: *Glagoljski kvateran Župe sv. Ante u Radošinovcima 1784. – 1795.*; (Zadar: Stalna izložba crkvene umjetnosti, 2013); Franov-Živković, „Kvateran (knjiga računa) crkve i bratovštine sv. Ante u Radošinovcima 1784. -1795.“, *Glagoljica i glagoljaštvo u biogradskom kraju*, (Biograd-Zadar: Matica hrvatska Zadar, Sveučilište u Zadru, Grad Biograd, 2014, 131 – 148; 131-148; Archives of the Zadar Archdiocese, *Glagoljski kvateran Župe sv. Ante u Radošinovcima 1784. – 1795.* (Glagolitic Book of Accounts of St. Anthony's Parish in Radošinovci 1784-1795).

46 Archives of the Zadar Archdiocese, Pašman, *Glagoljski libar dužnika Sv. Marije 1766.-1809*. (Glagolitic Book of Debtors of St. Mary 1766-1809); Pašman, *Libar dobitka Sv. Marije 1747. – 1820* (Book of Receipts of St. Mary 1747-1820). Such a sequence of debtors is found in the codex of Kukljica. Archives of the Zadar Archdiocese, *Kukljica, Latinička madrikula Bratovštine Duha Svetoga 1819.-1935.* (Latin Codex of the Confraternity of St. Spirit, 1819-1935)

to why it ended up in Sali. Namely, the person who made the entries and signed the *kvateran* was Don Bože Končić, a priest of Radošinovci, who was born in Sali and who, after leaving the service at Radošinovci, brought this *kvateran* with him to his birthplace, as it included some of his private accounts such as that of building a ship.

After naming the book, the long process of arranging the sheets and their portions started. They were arranged and then rearranged several times and the sequence was finally determined: first, debtors were listed, each on one sheet (which corresponds to the number of brothers of the confraternity that, according to Bianchi, should be 30),[47] followed by a list of the church accounts, revenues and expenditures, loans and various other entries. Only when the full transliteration was done could the *kvateran* be arranged entirely because it was only then clear what was wrong in the original arrangements. After arranging the *kvateran*, the book was sent for restoration.

List of Glagolitic Codices of the Archdiocese of Zadar and Monumenta glagolitica Archidioecesis Iadertinae

In order to better explore the written Glagolitic heritage, Don Pavao Kero and his associates came up with the idea of making a list of all the codices from the Zadar area that were known, starting with the lists made by Vladislav Cvitanović, Amos Rube Filipi, Ante Strgačić, Petar Vlasanović, Blaž Jurišić, Nedo Grbin, Vjekoslav Štefanić,[48] but also a number of

47 Bianchi, *Kršćanski Zadar*, 319.

48 Kero, *Popis glagoljskih kodeksa* (List of Glagolitic Codices) 2015), preface, 5-8: Glagolitic priest Don Vladislav Cvitanović was the first person who listed the Glagolitic codices of the Zadar Archdiocese. He was followed by Glagolitic priests Don Rube Filipi, Don Ante Strgačić and Don Petar Vlasanović. Later, they were joined by Dr. Blaž Jurišić. The lists of codices were published by the Croatian Academy of Sciences and Arts (former Yugoslav Academy of Sciences and Arts) in the following sequence: - Don Vladislav Cvitanović, *Starine* (Antiques), 42 (1949), pp. 349-370; 43 (1951), pp. 259–270; 47 (1957), pp. 197–221; *Radovi Instituta JAZU* (Works of the Institute of the Croatian Academy of Sciences and Arts), Zadar, 1972, XIX, pp. 187–243; - Don Rube Filipi, *Starine* (Antiques), 43 (1951), pp. 271–279; - Don Ante Strgačić, *Starine* (Antiques), 43 (1951), pp. 280–287; - Don Petar Vlasanović, *Starine* (Antiques), 43 (1951), pp. 276–279; - Dr. Blaž Jurišić listed only the Glagolitic monuments of the island of Vrgada, and his work was published also in the publication of the former Yugoslav Academy of Sciences and Arts (*Rad* (Works), 1962, 327, pp. 85–184). Most codices were listed by Don Vladislav Cvitanović, 210 units. 16 codices were listed by Filipi, 27 codices by Strgačić, and 11 by Vlasanović. These four

newly discovered codices which, together with the unsigned codices of the parishes, the State Archives in Zadar, Zagreb and Split and the Archives of the Croatian Academy of Sciences and Arts total, in the second edition, 541 codices. They encompassed a total of 72 parishes of the Zadar area. In the first edition, before the List went to print, Father Božo Sučić of St. Paul's Monastery in Školjić near Preko submitted a list of 23 codices from that monastery, which was then added at the end of the book. The first edition of the book published by the Permanent Exhibition of Religious Art was printed in 2008. After a few years, it was noticed that the earlier list was no longer sufficient because more Glagolitic codices were found, and there was also new research and new findings related to the codices already listed so work on the second edition of this book began.

In the second edition of the Glagolitic codices of the Zadar Archdiocese, the number of codices grew from 430 to 541, i.e., 111 codices more than in the previous edition. In this edition, previous lists were checked and updated, the current condition of the books was described, and whether they were published or not. Unfortunately, it was found that 34 Glagolitic codices from previous lists of the mentioned authors are lost today. This edition also includes codices located in libraries and archives outside Croatia, primarily in the Russian National Library, which contains a rich collection of codices and manuscripts, mainly from the Zadar area, i.e., in the famous Berčić collection. The list was made by the late Svetlana Olegovna Vialova, a famous expert and researcher of this collection and of Croatian Glagolitic script in general. The publishers were the Permanent Exhibition of Religious Art and the University of Zadar. In addition to Don Pavao Kero, Prof. Josip Faričić also appeared as an editor.

After the first edition of the Glagolitic codex list, the idea appeared that in further research many scholars, especially those who are not well acquainted with Glagolitic materials and also amateurs, would benefit from the publication of facsimiles and transliterations of particular codices. The

Glagolitic priests listed 264 codices total. If six bibliographic units by Blaž Jurišić are added to these, the result is that they listed total 270 codices. Nedo Grbin listed the codices of Zaglav, from which 10 bibliographic units were taken (Nedo Grbin, „Glagoljica crkve i samostana sv. Mihovila na Zaglavu". *Zaglav,* Zagreb - Zaglav, 1998, 67-92), while 64 bibliographic units were taken from Štefanić's list (Vjekoslav Štefanić, *Glagoljski rukopisi Jugoslavenske akademije*, (Zagreb: JAZU, I./1969, II./1970).

name MONUMENTA GLAGOLITICA ARCHIDIOECESIS IADERTINAE was invented by Pavao Galić, PhD, who was also the graphic editor of the series until his death in 2013.

From 2008 to the end of 2016, a total of 27 books were published in 21 volumes. They included 39 books (baptism, marriage and death records), one record of persons who had the Sacrament of Confirmation, one record of souls, six books of confraternities (*madrikula*), two books of accounts (*kvaterani*), one Glagolitic *godovi*, and one copy from Latin script without facsimile, one list of masses, and two collections of texts. There were a total of 54 Glagolitic codices. The following locations are covered: Olib, Kali, Polača, Tin - Bubnjane, Bibinje, Biograd, Radošinovci, Grusi - Briševo, Tkon, Kukljica, Pašman, Mali Iž and Ljubač. *Berčićev zbornik duhovnog štiva (*Berčić's collection of spiritual readings) was published in 2017. The records of deaths of Božava are in press, and two records of deaths of Sukošan are in process of preparation. Each book consists of a transliteration and facsimile of the code and two or more articles in each book.

Books of confraternities and books of accounts (*kvaterani*) published in *Monumenta*:

Vol. VII *„Biogradska glagoljska madrikula Bratovštine Uznesenja Blažene Djevice Marije 1720.-1841." (Glagolitic Codex of the Confraternity of the Assumption of the Blessed Virgin Mary of Biograd, 1720 – 1841),* Zadar, 2012.

Vol. VIII „*Glagoljska Madrikula bratovštine sv. Petra i sv. Ivana Krstitelja u Tinju i Bubnjanima 1723.-1767.*" (*Glagolitic Codex of the Confraternity of St. Peter and St. John the Baptist in Tinj and Bubnjane, 1723 – 1767)*, Zadar, 2012.

Vol. X „*Glagoljični dio Madrikule Blažene Gospe od Začeća u Bibinjama 1710.-1892.*" (*Glagolitic Part of the Codex of the Blessed Mary of the Immaculate Conception in Bibinje, 1710 – 1892*), Zadar, 2013.

Vol. XII „*Glagoljska Madrikula bratovštine SS. Kuzme i Damjana u Polači 1711.-1808.*" (*Glagolitic Codex of the Confraternity of St. Cosmas and Damian in Polača 1711 – 1808*), Zadar, 2013.

Vol. XIII „*Glagoljski kvateran Župe sv. Ante u Radošinovcima 1784.-*

1795.“ (*Glagolitic Book of Accounts of the Parish of St. Anthony in Radošinovci, 1784 – 1795*), Zadar, 2013.

Vol. XIX *„Riznica glagoljaške kulture i hrvatske pismenosti otoka Rave*” (*Treasury of Glagolitic Culture and Croatian Literacy of the Island of Rava*) – second of four published books consists of the transliteration and facsimile of *Glagoljska madrikula bratovštine sv. Roka 1764.-1892.* (*Glagolitic Codex of the Confraternity of St. Rocco 1764 – 1892*) and *Glagoljske kopije iz libra kvaterna 1769.-1849. (Glagolitic Copy of the Book of Accounts, 1769 – 1849.).*

Vol. XXI *„Glagoljska madrikula bratovštine sv. Josipa župe svetog Martina u Ljupču 1776.-1818.” (Glagolitic Codex of the Confraternity of St. Joseph of the Parish of St. Martin in Ljubač, 1776 – 1818).*

Conclusion

Glagolitic records of confraternities are important sources for studying the everyday life of ordinary people because they are full of onomastic, demographic, sociological, historical and linguistic data. When a book of confraternity is discovered, it is necessary to determine which type of record it is. This is important to be able to determine the sequence of the sheets or entries, that is, to determine which records are missing. The main problem arises when finding a codex of a confraternity that does not contain rules (*kapituli*), for which it cannot be determined whether it was the codex of a fraternity (*madrikula, matrikula*) with missing rules (i.e., whether it originally had rules at all) or whether it was the second book of a confraternity which may have contained rules, but only as a transcript of a former codex or it was a book of accounts or another category. The chronology of entries and the further investigation of the confraternity in question are also very important, just as the determination of the foundation date and the range of activities are very important in order to determine the sequence of the minutes of the annual assemblies and other important data. After determining the sequence of the sheets, and important data on the codex, i.e., the confraternity and which place to which it belongs, the book is forwarded for restoration and binding, and the data is entered into the Glagolitic codex list. After that, the book is prepared for publication.

To determine the type of the codex as well as the sequence of entries, it is important to know the historical context, as well as the general operating mode of confraternities, and then thoroughly to investigate the work of the confraternity to which the codex refers. Only then is it possible to complete the sequence of the pages of the damaged book, which will again after the restoration serve researchers of different areas for their scholarly work. Thus, through the confraternities' records, complemented by documents preserved in various archival fonds, we are able to reconstruct the life of a particular village in the past.

Sources

Archives of the Zadar Archdiocese (AZDN)

Božava, *Glagoljska madrikula Bratovštine sv. Nedilje 1712. – 1836.* (Glagolitic Codex of the Confraternity of St. Domenica 1712 – 1836).

Brbinj, *Glagoljski blagajnički dnevnik župne crkve u Brbinju 1706.-1807.* (Glagolitic Treasury Log of the Parish Church in Brbinj, 1706-1807).

Ist, *Glagoljska knjiga dobara crkve sv. Nikole 1727.-1854.* (Glagolitic Book of Assets of the Church of St. Nicholas 1727-1854).

Kali, *Glagoljska madrikula Gospe 7 žalosti* (Glagolitic Codex of Our Lady of the Seven Sorrows), *1729 - 1807, and 1858 until today.*

Kali, *Glagoljska madrikula Gospe od Luzarija* (Glagolitic Codex of Our Lady of the Rosary), *1619 – 1733.*

Kali, *Glagoljska madrikula skule sv. Trojstva* (Glagolitic Codex of School of St. Trinity), *Kali, 1683 - 1807 and 1857 until today.*

Kali, *Glagoljska madrikula sv. Križa* (Glagolitic Codex of St. Cross), *1717 - 1807, and 1857 until today*.

Kali, *Glagoljska madrikula sv. Sakramenta* (*Glagolitic Codex of the Blessed Sacrament*), *1675 until today*.

Kukljica, *Latinička madrikula Bratovštine Duha Svetoga 1819.-1935.* (Latin Codex of the Confraternity of St. Spirit, 1819-1935).

Ljubač, *Glagoljska madrikula Bratovštine sv. Josipa* (Glagolitic Codex of the Confraternity of St. Joseph), *1776 – 1825.*

Molat, *Glagoljske madrikule 1630.-1757.* (Glagolitic Codices 1630-1757).

Murvica, *Knjiga prihoda i rashoda župe Murvica, XVIII. – XIX. st.* (Book of Income and Expenses of the Parish of Murvica, 18th – 19th century).

Olib, *Glagoljska madrikula Bratovštine Gospe od Luzarija i Karmena u Olibu 1684.-1793.* (Glagolitic Codex of the Confraternity of Our Lady of the Rosary and Mount Carmel in Olib 1684-1793).

Olib, *glagoljske bilješke 1575.-1605.* (Glagolitic Notes 1575-1605).

Olib, *Glagoljski kvateran prokuraturov župne crkve 1766.-1784.* (Glagolitic Book of Accounts of Procurators of the Parish Church 1766 – 1784).

Olib, *Glagoljski libar legatov 1755.-1874.* (Glagolitic Book of Endowments 1755-1874).

Olib, *Računi Bratovštine duš od purgatorija, Olib, 1723. – 1750.* (Accounts of the Confraternity of the Holy Souls of Purgatory, Olib, 1723 – 1750)

Pašman, *Glagoljski libar dužnika Sv. Marije 1766.-1809.* (Glagolitic Book of Debtors of St. Mary 1766-1809).

Pašman, *Libar dobitka Sv. Marije 1747. – 1820* (Book of Receipts of St. Mary 1747-1820).

Preko, *Glagoljska madrikula Bratovštine duš od purgatorija 1770. – 1819.* (Glagolitic Codex of the Confraternity of the Holy Souls of Purgatory, 1770-1819).

Preko, *Glagoljski kvateran Bratovštine Gospe od Luzarija, 1778. – 1845.* (Glagolitic Book of Accounts of the Confraternity of Our Lady of the Rosary, 1778-1845.

Radošinovci, *Glagoljski kvateran Župe sv. Ante u Radošinovcima 1784. – 1795.* (Glagolitic Book of Accounts of St. Anthony's Parish in Radošinovci 1784-1795).

Rava, *Glagoljska madrikula sv. Roka, 1764. - 1892.* (Glagolitic Codex of St. Rocco, Rava, 1764-1892).

Sali, *Glagoljska knjiga rashoda 1709. – 1876.* (Glagolitic Book of Expenditures, 1709-1876).

Sali, *Libar lašov crkve Svete Marije, Sali* (Book of Endowments of St. Mary's Church in Sali).

Sestrunj, *Glagoljski blagajnički dnevnik župne crkve sv. Petra 1799. – 1826.* (Glagolitic Treasury Log of the Parish Church of St. Peter, 1799-1826).

Soline, *Glagoljska madrikula sv. Jakova* (Glagolitic Codex of St. Jacob), 1750.-1826.

Sutomišćica, *Glagoljska knjiga primitaka i izdataka Bratovštine Sv. Sakramenta 1765.-1803.* (Glagolitic Record of Income and Expenditures of the Confraternity of the Blessed Sacrament 1765 – 1803).

Sutomišćica, *Glagoljska madrikula Bratovštine Blažene Gospe i duš o purgatorija, 1743-1821,* (Glagolitic Codex of the Confraternity of the Blessed Virgin and the Holy Souls of Purgatory).

Sutomišćica, *Glagoljska madrikula Gospe od Karmena i Duš od Purgatorija* (Glagolitic Codex of the Confraternity of the Lady of Mount Carmel and the Holy Souls of Purgatory), 1745 – 1821.

Sutomišćica, *Knjiga primitaka i izdataka Bratovštine Sv. Sakramenta 1765.-1803.* (Book of Income and Expenses of the Confraternity of the Blessed Sacrament 1765 – 1803).

Sutomišćica, *Libar di se pišu oni ki fale i ki ostaju dužni 1767.-1804.* (Book of Defaulters and Debtors, 1767-1804).

Sutomišćica, *Popis sudaca, gaštalda, prokaratura raznih bratovština župe Sutomišćica 1699. – 1821.* (List of Judges, *Gastalds*, Procurators of Various Confraternities of the Sutomišćica Parish 1699-1821).

Tkon, *Glagoljsko-latinička knjiga primitaka i izdataka 1793.-1846.* (Glagolitic-Latin Book of Income and Expenditures).

Tkon, *Računi don Pere Pletikose 1815.-1816.* (Accounts of Don Pero Pletikosa 1815-1816).

Vinjerac, *Glagoljska madrikula Bratovštine sv. Ante* (Glagolitic Codex of the Confraternity of St. Anthony*), 1725 – 1820.*

Vrgada, *Glagoljski ribarski troškovnik* (Glagolitic Fishing Cost Statement).

Vrsi, *Glagoljska madrikula svetog Mihovila, Vrsi (kod Nina), 1700. – 1822.* (Glagolitic Codex of St. Michael, Vrsi (near Nin), 1700-1822).

Žman, *Glagoljski kvateran crkve sv. Ivana Krstitelja 1757. – 1843.* (Glagolitic Book of Accounts of the Church of St. John the Baptist, 1757 –

1843).

Funds: *Vizitacije ninske biskupije* (Visitations of the Nin Diocese) vol. 1-3; *Vizitacije Zadarske nadbiskupije* (Visitations of the Zadar Archdiocese), vol. 1-3.

State Archives in Zadar (DAZD)

Biogradska glagoljska madrikula Bratovštine Uznesenja Blažene Djevice Marije 1720. - 1841., (Glagolitic Codex of the Confraternity of the Assumption of the Blessed Virgin Mary in Biograd, 1720-1841).

Tkon, *Računi don Pere Pletikose 1815.-1816.* (Accounts of Don Pero Pletikosa 1815-1816).

Zadar, *Knjiga prihoda i rashoda bratovštine sv. Antuna opata* (Book of Income and Expenses of the Confraternity of St. Anthony the Abbot).

Local Heritage Museum of Biograd na moru

Glagoljska Madrikula bratovštine sv. Petra i sv. Ivana Krstitelja u Tinju i Bubnjanima 1723. – 1767. (Glagolitic codex of the Confraternities of St. Peter and St. Ivan the Baptist in Tinj and Bubnjane 1723-1767).

Archives of the Croatian Academy of Sciences and Arts

Bilježnice Mate Šimuncina Puhova, sign. IV a 80/17; IV a 80/41; IV a 80/39; IV a 80/10.

References

Batelja, Juraj, *Povijesne crtice o Zadarskoj nadbiskupiji u prvoj polovici 20. stoljeća, Euharistijski kongresi u Preku (1925.) i Benkovcu (1938.), Zadarska trilogija,* Part II, (Zadar: Zadarska nadbiskupija, 2014).

Bianchi, Carlo Frederico, *Kršćanski Zadar*, II. dio, (Zadar: Zadarska nadbiskupija i Matica hrvatska Zadar, 2011), 104-107;

Bloch, Marc, „Za komparativnu historiju europskih društava", in: *Uvod u komparativnu povijest*, (Zagreb: Golden marketing, - Tehnička knjiga 2001), 37-64.

Bloch, Marc, *Feudalno društvo*, (Zagreb: Golden marketing, 2001);

Bloch, Marc, *Apologija historije ili zanat povjesničara*, (Zagreb: Srednja Europa, 2008);

Bunčuga, Blaga; Kero, Pavao; Kero, Marija, *Glagoljska madrikula bratovštine Sv. Josipa župe Svetog Martina u Ljupču 1776. – 1818.* (Zadar: Stalna izložba crkvene umjetnosti, Sveučilište u Zadru 2017), eds: Pavao Kero and Josip Faričić.

Burke, Petar, *Istorija i društvena teorija*, Beograd: Equilibrium, 2002);

Burke, Petar, *Junaci, nitkovi i lude, narodna kultura predindustrijske Europe*, (Zagreb: Školska knjiga, 1991);

Burke, Petar, Što je kulturalna povijest?, (Zagreb: Antibarbarus, 2006);

Cvitanović, Vladislav, "Glagoljska Madrikula sv. Mihovila u Vrsima (kod Nina)", *Radovi Instituta JAZU,* Zadar, sv. XIX, 187 – 243.

Cvitanović, Vladislav, „Bratovštine grada Zadra", *Zadar – geografija, saobraćaj, povijest, kultura*, ur. J. Ravlić, (Zadar: Matica hrvatska, 1964), 457–470.

Cvitanović, Vladislav, „Popis glagoljskih kodeksa u zadarskoj nadbiskupiji", *Starine*, JAZU, 42, (1950), 349-370.

Cvitanović, Vladislav, „Popis glagoljskih kodeksa u zadarskoj nadbiskupiji", *Starine*, JAZU, 43, (1951), 259-270.

Cvitanović, Vladislav, „Prilog poznavanju kulturne povijesti na zadarskim otocima (Glagoljaši od XV. stoljeća do danas)", *Radovi Instituta za* *povijesne znanosti JAZU u Zadru*, 6-7, 1960., 201-235.

Cvitanović, Vladislav, „Zadudžbine – „laši“ na otocima zadarskog arhipelaga“, Radovi Instituta za povijesne znanosti JAZU u Zadru, 9, 1962, 191-217.

Čoralić, Lovorka, „Izvori i literatura o bratovštinama u Dalmaciji od srednjeg vijeka do pada Mletačke Republike“, *Croatica Christiana Periodica*, 25 (27), 1991., 88–96.

Franov-Živković, Grozdana, “Biogradska glagoljska madrikula Bratovštine Uznesenja Blažene Djevice Marije 1720. - 1841.“, in *Biogradska glagoljska madrikula Bratovštine Uznesenja Blažene Djevice Marije 1720. - 1841.,* (Zadar: Stalna izložba crkvene umjetnosti, 2012), VII – XV, ed: Pavao Kero.

Franov-Živković, Grozdana, “Bratovština (skula) župe sv. Ivana Krstitelja u Tinju i župe sv. Petra i Pavla u Bubnjanima u 18. stoljeću*, Radovi zavoda za povijesne znanosti HAZU u Zadru*“*,* 53, (2011), 163-187.

Franov-Živković, Grozdana, “Glagoljska Madrikula sv. Jakova u Solinama (Dugi otok) od god. 1750. do 1826.“, *Radovi Zavoda za povijesne znanosti HAZU u Zadru*, 51 (2009), 137-159.

Franov-Živković, “O kaljskim bratovštinama u razdoblju od 14. do početka 20. st.“, *Kali* (Zadar: Sveučilište u Zadru, Hrvatska akademija znanosti u umjetnosti, Općina Kali, 2017), 175-236.

Franov-Živković, Grozdana, „Bratovštine (skule) župe Blažene Gospe od Ruzarija u Preku na Otoku Ugljanu u 18. st. i 19. st.“, *Radovi zavoda za povijesne znanosti HAZU u Zadru,* 52, (2010), 231-259.

Franov-Živković, Grozdana, „Bratovštine župe svetog Mihovila u Vrsima“, *Vrsi kroz povijest* 2, (Vrsi: Matica Hrvatska – Povjereništvo Vrsi, 2015), 23-42.

Franov-Živković, Grozdana, „Bratovštine župe svetog Mihovila u Vrsima“, *Vrsi kroz povijest* 2, (Vrsi: Matica Hrvatska – Povjereništvo Vrsi, 2015), 23-42.

Franov-Živković, Grozdana, „Društvena slika ugljanskih sela od 15. do 18. stoljeća prema podacima iz glagoljskih vrela“, PhD diss, Sveučilište u Zadru, 2013.

Franov-Živković, Grozdana, „Društveni položaj pripadnika mletačkih teritorijalnih snaga (černida) sa zadarskog područja u 17. i 18. stoljeću na temelju glagoljskih matičnih knjiga i ostalih dokumenata“, *Acta Histriae,* 26, 2 (2018), 473-502. Accessed July 13, 2018. http://zdjp.si/wp-content/uploads/2018/10/AH_26-2018-2_Živković.pdf.

Franov-Živković, Grozdana, „Glagoljski mandat iz 1750. o postrojavanju teritorijalnih snaga zadarskih otoka“, *Zbornik Odsjeka za povijesne znanosti Zavoda za povijesne i društvene znanosti HAZU u Zagrebu,* 33/ 2015., 199-215.

Franov-Živković, Grozdana, „Kvateran (knjiga računa) crkve i bratovštine sv. Ante u Radošinovcima 1784. -1795.“, *Glagoljica i glagoljaštvo u biogradskom kraju*, (Biograd-Zadar: Matica hrvatska Zadar, Sveučilište u Zadru, Grad Biograd, 2014, 131-148.

Franov-Živković, Grozdana, „Madrikula Bratovštine sv. Petra i ss. Ivana Krstitelja u Tinju i Bubnjanima 1723. – 1767.“ in *Glagoljska Madrikula bratovštine sv. Petra i sv. Ivana Krstitelja u Tinju i Bubnjanima 1723. – 1767.*; (Zadar: Stalna izložba crkvene umjetnosti, 2012).; VII – XII; [1] – [20], ed. Pavao Kero.

Franov-Živković, Grozdana, „O kaljskim običajima od 15. stoljeća do početka 20. st.“, *Kali* (Zadar: Sveučilište u Zadru, Hrvatska akademija znanosti u umjetnosti, Općina Kali, 2017), 237-274.

Franov-Živković, Grozdana, „Svakidašnji život na Ravi i poštivanje običaja ispunjavanja zadužbina (laši, legata) ravskog stanovništva, in Grozdana Franov-Živković, Ivica Vigato, *Glagoljske madrikula bratovštine sv. Roka 1764. – 1892.; Glagoljska kopija iz libra kvaterna 1769. – 1849., Riznica glagoljaške kulture i hrvatske pismenosti otoka Rave*, Monumenta glagolitica Archidioecesis Iadertianae, (Zadar: Stalna izložba crkvene umjetnosti and Sveučilište u Zadru, 2016), eds. Pavao Kero and Josip Faričić.

Franov-Živković, Grozdana, „Uloga crkvenih bratovština u svakidašnjem životu Velog Rata, Verone i Polja u 17. i 18. stoljeću“, *Veli Rat*, (Zadar: Sveučilište u Zadru, 2013), 291-308.

Franov-Živković, Grozdana, „Bratovštine (skule) župe sv. Eufemije u Sutomišćici na otoku Ugljanu u 18. stoljeću“, *Zbornik Odsjeka za povijesne znanosti Zavoda za povijesne i društvene znanosti HAZU*, Vol. 27

(2009): 165-227.

GINZBURG, CARL, *Sir i crvi, kozmos jednog mlinara iz 16. st.*, (Zagreb: Grafički zavod Hrvatske, 1989).

GRBIN, NEDO, „Glagoljica crkve i samostana sv. Mihovila na Zaglavu", *Zaglav*, Zagreb - Zaglav, 1998., 67-92.

JEDIN, HUBERT, *Velika povijest crkve*, V, (Zagreb: Kršćanska sadašnjost, 1978).

JURIŠIĆ, BLAŽ, „Glagoljski spomenici otoka Vrgade", *Rad JAZU,* 1962., 327, 85-184.

KERO, PAVAO and FRANOV-ŽIVKOVIĆ, GROZDANA: *Glagoljski kvateran Župe sv. Ante u Radošinovcima 1784.-1795.*; (Zadar: Stalna izložba crkvene umjetnosti, 2013).

KERO, PAVAO, *Popis glagoljskih kodeksa zadarske nadbiskupije,* (List of Glagolitic Codices in the Zadar Archdiocese), (Zadar: Stalna izložba crkvene umjetnosti, 2008), the first edition.

KERO, PAVAO, *Popis glagoljskih kodeksa zadarske nadbiskupije*, (Zadar: Stalna izložba crkvene umjetnosti, Sveučilište u Zadru, 2015), eds. Pavao Kero i Josip Faričić, the second edition.

MODRIĆ, OLIVER and KOLANOVIĆ, JOSIP, *Vodič Arhiva Zadarske nadbiskupije*, (Zadar: Državni Arhiv Zadar i Zadarska nadbiskupija, 2013).

"Pisana baština: portal digitalizirane hrvatske pisane baštine zadarsko-šibenskog područja." Accessed July 13, 2018. https://pisanabastina.unizd.hr/.

RAUKAR, TOMISLAV, *Hrvatsko srednjovjekovlje*, (Zagreb: Školska knjiga, 1997).

RUNJE, PETAR, „O knjigama glagoljaša u drugoj polovici 14. i u 15. stoljeću u Zadarskoj nadbiskupiji", in *Iskoni be slovo*, (Zagreb: Provincijat franjevaca trećeredaca, Kršćanska sadašnjost, 2001), 57-67.

RUNJE, Petar, *Glagoljica u zadarskoj nadbiskupiji u srednjem vijeku*, (Zadar: Gradska knjižnica Zadar, 2005).

RUNJE, PETAR, O *knjigama hrvatskih glagoljaša*, (Zagreb: Provincijat franjevaca trećeredaca, Kršćanska sadašnjost, 1998).

RUNJE, PETAR, *Duhovni život na zadarskim otocima u kasnome srednjem vijeku*, (Zadar: Gradska knjižnica Zadar, 2008).

SMILJANIĆ, FRANJO, „Novi pogledi na običaj biranja seoskog kralja na zadarskim otocima", *Zbornik otok Rava*, (2008), 439-443.

Smiljanić, Franjo, *Studije o srednjovjekovnim Slavenskim/Hrvatskim institucijama*, (Zadar: Sveučilište u Zadru, 2010).

Strgačić, Ante, „Popis glagoljskih kodeksa u zadarskoj nadbiskupiji", *Starine*, JAZU, Zagreb, 43, 1951., 280-287.

Štefanić, Vjekoslav, *Glagoljski rukopisi Jugoslavenske akademije*, JAZU, Zagreb, (I./1969, II./1970.).

Štoković, Alojz, „Bratovštine na istočnoj obali Jadrana, Prilog proučavanju socijalne povijesti na Sredozemlju od XI. do XVII. stoljeća," *Vjesnik DAR*, 47-48/, 2006-2007, 141-158.

Vlasanović, Petar, „Popis glagoljskih kodeksa u zadarskoj nadbiskupiji", *Starine*, JAZU, Zagreb, 43, 1951, 276-279.

GLAGOLJSKE KNJIGE BRATOVŠTINA ZADARSKOG PODRUČJA I NJIHOVA VRIJEDNOST KAO POVIJESNIH DOKUMENATA

Ključne riječi:
bratovštine, madrikule bratovština, knjige računa, svakodnevni život, Monumenta glagolitica Archidioecesis Iadretinae, digitalna humanistika

Sažetak

Glagoljske evidencije bratovština su važni izvori za proučavanje svakodnevnog života maloga čovjeka jer su prepune onomastičkih, demografskih, socioloških, povijesnih i jezičnih podataka. U članku se definiraju evidencije bratovština i problemi pri utvrđivanju naziva pojedine knjige. Razlikujemo knjige bratovština (madrikule), knjige računa (kvaterane, bilježnice), knjige prihoda i rashoda (datja i prijatja, prijaće i trošnje), blagajničke dnevnike župne crkve sa zapisima bratovština, ribarske troškovnike, knjige lašov (legata), knjige dužnika, knjige s raznim popisima i bilješkama, sveščiće s popisom umrle braće, popise sudaca, gaštalda, prokaratura.

Mnoge od ovih evidencija bratovština su na zadarskom području pronađene u jako lošem stanju te je bilo potrebno rekonstruiranje i sređivanje prije davanja na restauraciju. Ovaj ogroman posao je na zadarskom području odradio mons dr. sc. Pavao Kero. U većini knjiga pronađenih po župnim kućama i u privatnom vlasništvu nisu bile obilježene stranice te je bio veliki problem složiti knjigu po kronološkom ili nekom drugom redu.

Prilikom pronalaska neke knjige bratovštine je potrebno odrediti o kojoj vrsti knjiga bratovštine je riječ. To je važno da bi se mogao utvrditi redoslijed listova odnosno zapisa, odnosno da bi se moglo pronaći koji zapisi nedostaju. Glavni problem nastaje prilikom pronalaska knjige bratovština koja ne sadrži kapitule, za koju se ne može odrediti da li je to bila prva knjiga bratovština (madrikula, matrikula) čiji su kapituli

nestali (odnosno da li je ona izvorno imala uopće kapitule), da li je riječ o drugoj knjizi bratovština u kojoj su možda kapituli postoje ali samo kao prijepis neke ranije madrikule ili je riječ o knjizi računa ili nekoj drugoj kategoriji knjige. Jako je važna i kronologija zapisa te daljnja istraživanja o pronađenoj bratovštini, utvrđivanje datuma osnivanja i raspon djelovanja da bi se mogao odrediti redoslijed zapisnika sa godišnjih skupština te drugi važni podatci. Nakon utvrđivanja redoslijeda listova, važnih podataka o knjizi, tj. kojoj bratovštini pripada i kojem mjestu, knjiga se daje na obnovu i uvezivanje te se podatci upisuju u Popis glagoljskih kodeksa. Nakon toga se se knjiga priprema za objavljivanje (na primjer: u nizu Monumenta glagolitica Archidiecesis Iadertinae)..

Dakle, za utvrđivanje vrste kodeksa kao i redoslijeda zapisa važno je poznavati povijesni kontekst, kao i općenito način rada bratovština, a nakon toga kompletno istražiti rad bratovštine na koju se kodeks odnosi. Tek je tada moguće kompletirati redoslijed stranica oštećene knjige, koja će opet nakon obnove poslužiti istraživačima različitih područja za njihove znanstvene radove. Na taj način preko knjiga bratovština, a upotpunjeno dokumentima sačuvanim po raznim arhivskim fondovima možemo rekonstruirati život pojedinog naselja u prošlosti.

Na Sveučilištu u Zadru izvodi se interdisciplinarni znanstveni projekt Digitalizacija i istraživanje tekstova zadarsko-šibenskog područja iz razdoblja do kraja 19. st. pisanih glagoljicom, bosančicom i latinicom (Pisana baština) u sklopu kojeg se digitaliziraju i glagoljske madrikule bratovština.

Projekt je inicirao Odjel za informacijske znanosti Sveučilišta u Zadru u suradnji s Vestigia institutom za istraživanje rukopisa sa Sveučilišta u Grazu. Suradnici dolaze s više odjela Sveučilišta u Zadru te više hrvatskih i stranih institucija koje se bave različitim aspektima istraživanja rukopisa (posebno tekstovima pisanim glagoljicom i hrvatskom ćirilicom - bosančicom), stare tiskane građe, informacijskim znanostima i digitalnom humanistikom. Projekt ima potporu Ministarstva kulture RH, Hrvatske akademije znanosti i umjetnosti i Sveučilišta u Zadru i Grazu.

AUTHORITY AS REFLECTED IN A CORPUS STUDY OF COINED AND BORROWED EASTERN ARMENIAN WORDS IN THE SOVIET AND POST-SOVIET ERAS

Zaruhi Grigoryan
European Regional Educational Academy, Yerevan, Armenia

Keywords:
Armenian language, Eastern Armenian language, corpus studies, Eastern Armenian National Corpus, language and politics, borrowed words, international terms, synonyms, 21st century

Abstract

A notable manifestation of the relationship with authority is the lexicon of Eastern Armenian, one of the two standardized forms of Modern Armenian. This paper presents the results of a corpus study on the development of the social-political lexicon of Eastern Armenian between the nineteenth and twenty-first centuries. The lexicon of the latter has predominantly developed by the following two means: coining new words and borrowing international ones. Despite extensive work on this theme, scholars have not yet fully explored the interrelation of these opposite tendencies in Eastern Armenian, especially through a corpus study. The research questions that have guided this study are as follows: 1. whether the social-political concepts in Eastern Armenian lexicon were first reflected through terms coined out of Armenian language material and were later replaced by words borrowed from/through Russian; and 2. whether the terms that were coined sooner are also the ones that have been used more frequently.

During the Soviet era, the lexicon of the Armenian language, including its social-political segment, was studied thoroughly. The dynamics of its development have been shown by such scholars as M. Abełyan,[1] H. Ačar˚yan,[2] A. Murvalyan,[3] H. Ohanyan[4] and others. However, besides the works of R. Shalunts[5] there are very few studies on the development of the lexicon of the Armenian language in the post-Soviet era. On the whole, in spite of the extensive work conducted, the development of the lexicon of the Armenian language since the 19th century has not yet been studied thoroughly. The present paper is a corpus study on Armenian language data. These data reflect changes that took place in the lexicon of the Armenian language as a result of the social-political changes since the 19th century, including the pre-Soviet, Soviet and post-Soviet periods.

In his 1955 monograph, Murvalyan[6] notes that the Armenian lexicon develops "mainly by *borrowing words* from Russian or from other languages through Russian, partly from Classical Armenian (also called Grabar); through *calques/loan translations* from Russian (of course, based on the word-building rules in Armenian); and especially by utilising the *inner word-building resources* of the Armenian language, i.e., through compounding and derivation, as well as through *semantic change/progression*,

1 M. Abełyan, *Theory of Armenian Language / Աբեղյան, Մ. Հայոց լեզվի տեսություն / Hayocʼ lezvi tesutʼyun*, Vol. 4. (Yerevan: Melkonyan Foundation Publishing, 1931).

2 H. Ačar˚yan, *History of Armenian Language, Part 1 / Աճառյան Հ. Հայոց լեզվի պատմություն, Մաս Ա / Hayocʼ lezvi patmutʼyun* (Yerevan: YSU Publishing, 1940); Ačar˚yan, H. *History of Armenian Language, Part 2 / Հայոց լեզվի պատմություն / Hayocʼ lezvi patmutʼyun* (Yerevan: Haypethrat, 1951).

3 A.A. Murvalyan, *The Lexicon of the Armenian Language. A Study / Հայոց լեզվի բառային կազմը. Ուսումնասիրություն / Hayocʼ lezvi bar˚ayin kazm ĕ. Usumnasirutʼyun* (Yerevan: Publication of the NAS of Armenian SSR, 1955).

4 H. A. Ohanyan, *The Lexicon of Contemporary Armenian Language and the Ways of Enriching It / Ժամանակակից հայոց լեզվի բառապաշարը և նրա հարստացման միջոցները / Žamanakakicʼ hayocʼ lezvi bar˚apašarĕ yev nra harstacʼman mijˇocʼnerĕ* (Yerevan, NAS RA Publishing, 1982); H. A. Ohanyan, "The Manifestations of the Development of Contemporary Armenian / Ժամանակակից հայոց լեզվի բառապաշարի զարգացման դրսևորումները / Žamanakakicʼ hayocʼ lezvi bar˚apašari zargacʼman drsevorumnerĕ," *Lraber Hasarakakan Gitutʼyunneri*, 1 (1991): 97-105.

5 R˚. N. Šaluncʼ, "The Social-political Transformations of the Recent Years and the Neologisms in Literary Armenian / Վերջին տարիների հասարակական-քաղաքական վերափոխումները և նորաբանությունները գրական հայերենում / Verjˇin tarineri hasarakakan-kʼałakʼakan verapʼoxumnerĕ yev norabanutʼyunnerĕ grakan hayerenum," *Lraber Hasarakakan Gitutʼyunneri* , 2 (1993); R˚. N. Šaluncʼ, "The Newest Social-Political Terms in the Language of the Media / Հասարակական-քաղաքական նորագույն տերմինները զանգվածային լրատվության լեզվում / Hasarakakan-kʼałakʼakan noraguyn terminnerĕ zangvacayin lratvutʼyan lezvum," *Lraber Hasarakakan Gitutʼyunneri*, 3 (1996).

6 Murvalyan, *The Lexicon of the Armenian Language*, 71.

which are closely connected and often occur together" *[italics A.M., transl. Z.G.].* As for the development of the social-political vocabulary in Armenian, Murvalyan notes that such concepts as *revolution, revolutionary, (political) party,* and *partizan* were first introduced as Armenian coinages e.g., *հեղափոխություն [heł hap'oxut'yun, "revolution"], կուսակցություն [kusakc'ut'yun, "political party"], etc.* which were later replaced by loanwords from Russian. Then in the post-Soviet era these were once again replaced by the former Armenian coinages. However, the previous studies do not show whether this has been the norm in similar cases or whether it was the case only for the above-mentioned terms.

The present article studies the development of Eastern Armenian social-political lexicon since the 19th century, focusing on 14 concepts and their double or triple equivalents (e.g., in Eastern Armenian, "a political party" has been called either "պարտիա" *[partia]* or "կուսակցություն" *[kusakc'ut'yun]*).

Since any language corpus is representational only to a certain extent, in this case too we are dealing with the dynamics of the phenomenon rather than the absolute number of the word occurrences. Borrowing a word from the language representing authority, in this case Russian, does not always have the same causes or aims. Thus, borrowing a word for a new concept is only natural at the very beginning, when the concept itself is new to the society, e.g., when radio first came to be used in Armenia. In contrast, borrowing a word for a concept that has had its specific designation among the speakers of the language presupposes a reason beyond the lack of a corresponding term in that language. This is the case for the Armenian words denoting "a political party", namely "կուսակցություն" *[kusakc'ut'yun]* and "պարտիա" *[partia],* of which the first variant occurs in the 1870s, whereas the second variant, borrowed through Russian, was introduced only in the 1900s and became prevalent only since the 1950s. Nevertheless, currently it is again the first variant that prevails and is used almost exclusively – a dynamic that can be traced since the 1970s due to social developments in Soviet Armenia and that has continued since the independence of the Republic of Armenia in 1991. Within the framework of the present study, the following research questions were answered: 1.

whether these social-political concepts in the Eastern Armenian lexicon were first reflected through Armenian coinages and were later replaced by words borrowed from/through Russian; and 2. whether the coinages that were introduced earlier are also the ones that have been used more frequently.

Analysis

In order to answer the above-mentioned questions, I conducted a corpus study, which shows the frequency with which the given word has been used across the whole time-span reflected in the data of the corpus, i.e., during the years 1800 to 2009. I compared the outcomes to data from the existing studies, the majority of which refer only to the period up to 1991, or 1996 at the latest. For the Armenian language, the most important annotated language corpus is the Eastern Armenian National Corpus (EANC),[7] which has been used for this research. This corpus includes data from the beginning of the 19th century up to 2009: therefore, the study can reflect only the data from that period, excluding the last 6 years. Nevertheless, it does give an idea of the main trends in this sphere.

In order to verify the above-mentioned research questions, I decided to examine the frequency with which a set of concepts has been expressed in Eastern Armenian – on the one hand, through loanwords and on the other, through Armenian coinages from the 19th century up until 2009. Thus, I selected 12 pairs of terms and 2 triples of terms denoting social-political concepts. They are as follows:

1. *կուսակցություն [kusakcʼutʼyun] –պարտիա [*partia*](*political party*),*
2. *հանրապետություն [*hanrapetutʼyun*] -ռեսպուբլիկա [*˚respublika*] (*republic*),*
3. *հեղափոխություն [*heł hapʼoxutʼyun*] - ռևոլյուցիա [*˚revolyucʼia*]*

7 *Eastern Armenian National Corpus*, http://eanc.net/, Corpus Technologies, 2007-2009, last modified April 2015.

*(*revolution*)*,

4. *խորհրդային [*xorhrdayin*] –սովետական [*sovetakan*] (*Soviet*)*,
5. *նստաշրջան [*nstašrjan*] - սեսիա [*sesia*](*session*)*,
6. *պատգամավոր [*patgamavor*] – դեպուտատ [*deputat*] (*member of parliament*)*,
7. *սահմանադրություն [*sahmanadrut'yun*] – կոնստիտուցիա [*kon-stituc'ia*] (*constitution*)*,
8. *մեծամասնական [*mecamasnakan*] - բոլշևիկ [*bolševik*] (*Bolshe-vik*)*,
9. *փոքրամասնական [*p'ok'ramasnakan*] - մենշևիկ [*menševik*] (*Menshevik*)*,
10. *համայնավարական [*hamaynavarakan*] – կոմունիստ [*komunist*] (*communist*)*,
11. *նյութապաշտ [*nyut'apašt*] – մատերիալիստ [*materialist*] (*materi-alist*)*,
12. *կաճառ [*kačhar*] – ճեմարան [*čemaran*] –ակադեմիա [*akademia*] (*academy*)*,
13. *կաճառական [*kača˚rakan*] – ուսուցչապետ [*usuc'č'apet*] -ակադեմիկոս [*akademikos*](*academician*)*,
14. *ձայնասփյուռ [*jaynasp'yu˚r*] - ռադիո [*˚radio*](*radio*)*.

The selection of these words runs parallel with that of the work by Murvalyan who describes earlier stages of their usage (i.e., up to 1955). The results of the analysis are shown in Tables 1-2. It should be mentioned that the data obtained from EANC include also occurrences of those terms that lack a date. In order to avoid confusion, such cases have been left out of the study.

TABLE 1 The number of occurrences of the above-mentioned word pairs and triples, according to the decades since 1800 until 2009. (For some of the occurrences no date is indicated.)

No. of the word pair or triple	1		2		3		4		5		6		7		8		9		10		11		12			13			14		
Year	կուսակցություն (kusakc'ut'yun)	պարտիա (partia)	հանրապետություն (hanrapetut'yun)	ռեսպուբլիկա (˚respublika)	հեղափոխություն (hełap'oxut'yun)	ռևոլյուցիա (˚revolyuc'ia)	խորհրդային (xorhrdayin)	սովետական (sovetakan)	նստաշրջան (nstašrjan)	սեսիա (sesia)	պատգամավոր (patgamavor)	դեպուտատ (deputat)	սահմանադրություն (sahmanadrut'yun)	կոնստիտուցիա (konstituc'ia)	մեծամասնական (mecamasnakan)	բոլշևիկ (bolševik)	փոքրամասնական (p'ok'ramasnakan)	մենշևիկ (menševik)	համայնավարական (hamaynavarakan)	կոմունիստ (komunist)	նյութապաշտ (nyut'apašt)	մատերիալիստ (materialist)	կաճառ (kačhar)	ճեմարան (čemaran)	ակադեմիա (akademia)	կաճառական (kača˚rakan)	ուսուցչապետ (usuc'č'apet)	ակադեմիկոս (akademikos)	ձայնասփյուռ (jaynasp'yu˚r)	ռադիո (˚radio)	Total
(1800-1859)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	174,213
(1860-1869)	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	278,905
(1870-1879)	11	0	0	0	4	0	0	0	0	1	3	0	11	0	0	0	0	0	0	0	2	0	0	7	0	0	0	0	0	0	957,414
(1880-1889)	6	0	0	0	9	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	4	0	2	13	0	0	2	0	0	0	1,930,440
(1890-1899)	3	0	0	0	2	0	0	0	0	0	12	0	0	0	0	0	0	0	0	0	2	0	0	1	0	0	0	0	0	0	800,528
(1900-1909)	4	1	4	0	4	0	20	18	1	0	6	5	0	0	11	1	12	4	0	5	2	0	3	10	9	0	0	2	0	0	2,028,309
(1910-1919)	0	0	0	0	3	0	5	0	0	0	1	0	0	0	0	6	0	2	0	1	0	1	0	15	0	0	0	0	0	0	758,858
(1920-1929)	2	2	11	0	27	0	872	111	0	0	31	1	0	1	1	29	0	14	2	70	1	1	0	0	0	0	0	4	0	49	1,679,797
(1930-1939)	62	15	24	2	54	5	3,450	624	3	1	179	3	16	1	1	108	1	12	6	224	0	1	0	5	7	0	0	26	0	147	3,891,321
(1940-1949)	33	10	27	7	29	4	777	2,893	0	10	14	72	14	6	0	92	1	6	0	43	2	1	1	1	7	0	1	20	0	64	1,993,074
(1950-1959)	4	59	5	41	18	27	25	5,622	2	12	11	170	2	12	3	55	2	4	4	161	3	5	7	8	14	0	0	77	0	51	5,098,903
(1960-1969)	15	37	34	57	53	5	398	4,981	4	20	50	202	5	1	10	279	5	4	8	177	1	2	2	17	20	1	6	124	0	64	7,141,505
(1970-1979)	361	30	460	8	126	15	456	10,146	24	12	142	536	70	9	0	66	1	22	1	439	6	44	11	55	138	0	9	506	0	204	12,358,514
(1980-1989)	521	26	943	11	226	4	329	12,835	22	3	266	772	111	5	0	101	3	47	2	374	7	33	4	46	154	0	14	519	1	136	11,958,717
(1990-1999)	92	4	134	1	26	0	540	132	8	0	111	47	11	0	57	5	0	1	3	41	1	1	0	4	7	0	1	57	0	16	3,438,049
(2000-2009)	2,817	244	4,331	63	1,169	15	7,303	2,068	220	4	9,833	87	569	3	1,555	71	25	22	39	569	34	9	10	70	312	1	18	1,466	4	530	42,943,041
No date available	110	18	84	5	130	5	825	1,967	7	2	89	32	25	4	15	274	3	10	7	284	8	9	14	36	45	0	3	139	2	85	12,852,873
Sum	4,041	446	6,057	195	1,880	80	15,000	41,397	291	65	10,758	1,928	834	42	1,653	1,087	53	148	72	2,388	73	107	54	291	713	2	54	2,940	7	1,346	110,284,461

Discussion

The material analysed presents the situation in which in the Armenian language the same social-political concept has been denoted by two or even three terms. This phenomenon has been called "variety of neologisms", i.e., when "dictionaries prescribe more than one term so that at least one of them gets selected and utilised. ... Thus, there emerge synonyms, having been created simultaneously and being used more or less frequently, out of which one [variant] becomes generalized with time".[8]

In connection with this phenomenon of multiple neologisms, Ohanyan[9] notably brought the following information for the concepts of *republic, revolution, party, Soviet, delegate, session* and *constitution*. Although their Armenian equivalents "had become widespread in written and oral communication, in 1940 the Terminological Committee [of Armenia, Z.G.] made a completely unjustified decision to replace the above-mentioned words of the Armenian language with the so-called international ones. It was suggested that all publishers, periodicals, scientific research institutions and universities officially put into use the words *ռեսպուբլիկա [*˚respublika*], ռևոլյուցիա [*˚revolyuc'ia*], պարտիա [*partia*], սովետ [*sovet*], դելեգատ [delegat], սեսիա [*sesia*], կոնստիտուցիա [*konstituc'ia*]*. On October 5 of the same year, a clarification was published on the use of those terms. It was required to call state administrative bodies of USSR by the word *սովետ [sovet]* (council), whereas for the advisory bodies of educational, scientific and other institutions it was recommended to use the word խորհուրդ [xorhurd] (council); it was required to retain the word հեղափոխություն [hełap'oxut'yun] (radical change, revolution) in the Armenian language in its everyday sense and to denote social and historical events with the term *ռևոլյուցիա [*˚revolyuc'ia*] (revolution)*.

This decision by the Terminological Committee caused well-deserved dissatisfaction among the intelligentsia. In 1962 [the eminent Armenian poet, Z.G.] Paruyr Sevak published in «Գրական թերթ» [Grakan T'ert'] ("Literary Newspaper") an article called "Let us preserve and enrich our

8 Ałayan, *General and Armenian Lexicology*, 153, transl. Z.G.
9 Ohanyan, *The Lexicon of Contemporary Armenian Language and the Ways of Enriching It*, 340-343.

[Armenian Z.G.] language", in which "following an investigation of the semantic clarity, word-building flexibility and phonetic harmony of foreign and Armenian words," he rightly gave preference to the Armenian equivalents and emphasized the wrongful and unjust decision of the Committee. Since the [publication of] this Sevak's article, the Armenian equivalents started to be used quite actively. Gradually the Armenian equivalents became widespread and frequently used. Words, such as *հանրապետություն* [hanrapetut'yun], *հեղափոխություն* [heɫap'oxut'yun], *կուսակցություն* [kusakc'ut'yun], *սահմանադրություն* [sahmanadrut'yun] gradually gained ground, becoming more and more widespread. On May 22, 1966 the Terminological Committee made a new decision concerning these terms, by which they were restored and their usage became official. It was stated that the rationale was the widespread use of those Armenian words in oral and written communication. Thus the Terminological Committee reviewed its decision of 1940 and corrected its mistake.

In 1940 also, the words *դելեգատ* [delegat] and *դելեգացիա [delegac'ia]* (delegate and delegation) were mistakenly introduced to the Armenian language, despite the fact that [in Armenian] their equivalents, i.e., *պատգամավոր* [patgamavor] and *պատգամավորություն* [patgamavorut'yun]/ պատվիրակություն [patvirakut'yun] were already being used. On January 20, 1956 that mistake was corrected, and the above-mentioned foreign words were replaced by national equivalents. In 1940, by decision of the Terminological Committee, the word *սեսիա [sesia]* (session) came into official usage in Armenian: it was later replaced by the Armenian words *նստաշրջան* [nstašrjan] and *քննաշրջան [k'nna*šr-jan*]* through the new decision of the Terminological Committee in June 1977".[10] Thus, the analysis reveals that in the case, for example, of the word-pair *կուսակցություն [kusakc'ut'yun] – պարտիա [partia]* the Armenian coinage *կուսակցություն [kusakc'ut'yun]* has come into usage starting in the 1870s. As for the international variant *պարտիա [partia]*, it started to be used in the first decade of 20th century, and was the more frequently used variant only in the 1950s-1960s (see Figure 1).

10 Ibid., transl. Z.G.

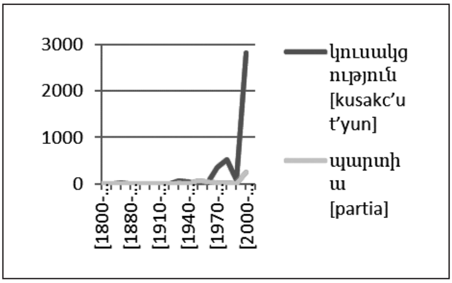


Figure 1

In case of the word-pair *հանրապետություն [hanrapetut’yun]* – *ռեսպուբլիկա [˚respublika]* we get a similar picture. The variant *հանրապետություն [hanrapetut’yun]*, created with the word-building resources of the Armenian language, entered into usage in the first decade of the 20th century and has been used more frequently than the variant *ռեսպուբլիկա [˚respublika]*, which entered into usage in the 1930s, with the exception of the 1950s-1960s (see Figure 2).

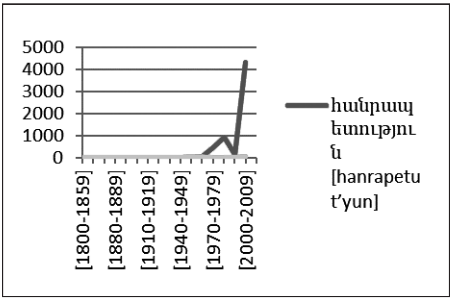


Figure 2

In case of the word-pairs *հեղափոխություն [hełap’oxut’yun]* – *ռևոլյուցիա [˚revolyuc’ia]* and *կուսակցություն [kusakc’ut’yun]* – *պարտիա [partia]*, the variant created with the word-building resources of the Armenian langauge started to be used in the 1870s. Yet, the borrowed variant *ռևոլյուցիա [˚revolyuc’ia]* started to be used rather late, in the 1930s, and by the frequency of its usage exceeded the other variant *հեղափոխություն [hełap’oxut’yun]* only slightly, and that in the 1950s (see Figure 3).

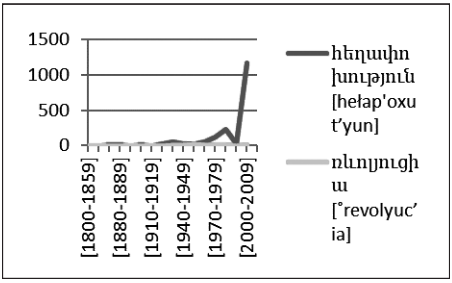


Figure 3

The word-pair *խորհրդային [xorhrdayin] –սովետական [sovetakan]* is special since both of these variants entered usage during the same decade (1900-1909). The variant *խորհրդային [xorhrdayin]* slightly exceeded the other one at that time, and became completely prevalent between 1920 and the 1930s. The ratio was reversed for the whole duration of 1940 until the 1980s and has been restored for the years 1990 to 2009 (see Figure 4).

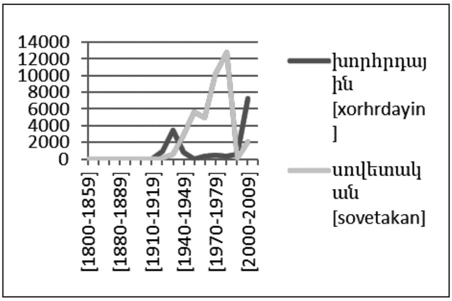


Figure 4

In the case of the word-pairs *նստաշրջան [nstašrjan] – սեսիա [sesia]* and *պատգամավոր [patgamavor] – դեպուտատ [deputat],* the borrowed variant was the first to enter usage, but it has been used less frequently than the Armenian coinage up to the 1940s. During 1940 to the1980s the ratio was reversed in the case of this word-pair too and again was restored in the years 1990 to 2009 (see Figures 5, 6).

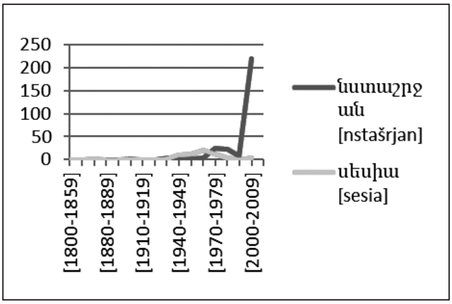


Figure 5

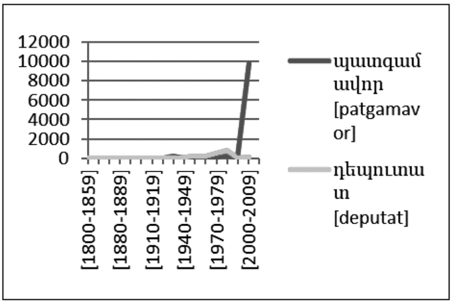


Figure 6

In the case of the word-pair *սահմանադրություն [sahmanadrut'yun] – կոնստիտուցիա [konstituc'ia],* the former has prevailed except for the 1950s (see Figure 7).

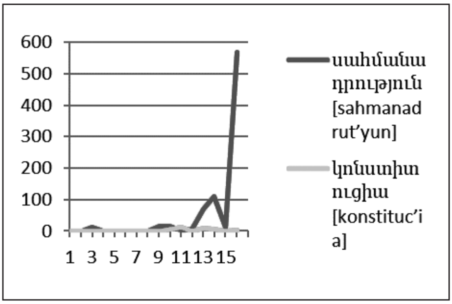


Figure 7

The word-pairs *մեծամասնական [mecamasnakan] – բոլշևիկ [bolše-vik]* and *փոքրամասնական [p'ok'ramasnakan] – մենշևիկ [menševik]* entered usage no sooner than the first decade of the 20th century, and only during that decade did the first members of the word-pairs exceed the second ones in frequency. Since 1990s the word *մեծամասնական [mecamasnakan]* has been used more often than the word *բոլշևիկ [bolševik]*, although in this case one should note the case of homonymy, since the word *մեծամասնական [mecamasnakan]* also refers to the type of electoral system (see Figures 8, 9).

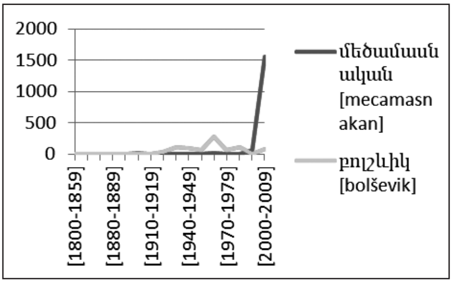


Figure 8

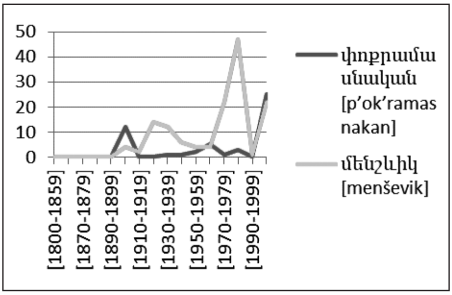


Figure 9

In the case of the word-pair *համայնավարական [hamaynavarakan] – կոմունիստ [komunist],* the variant *համայնավարական [hamaynavarakan],* which was created using the word-building resources of the Armenian language, entered usage two decades later than the international variant *կոմունիստ [komunist]* (i.e., during the years 1920 to 1929) and has always been used less frequently in comparison to it (see Figure 10).

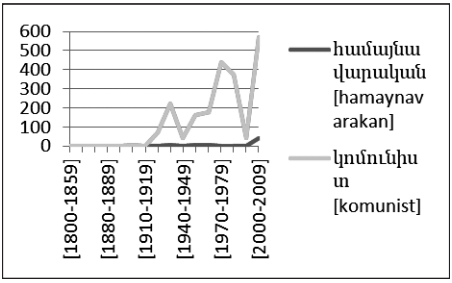


Figure 10

The usage of the word-pair *նյութապաշտ [nyutʼapašt]* – *մատերիալիստ [materialist]* presents an interesting pattern. First the Armenian variant *նյութապաշտ [nyutʼapašt]* entered usage (i.e., in the 1870s), and then, since the 1910s – the variant *մատերիալիստ [materialist]*. With a slight approximation of figures, we get quite a varied picture: between 1870 and the 1900s the variant *նյութապաշտ [nyutʼapašt]* prevailed, and between 1950 and the 1980s, the variant *մատերիալիստ [materialist]*. However, the usage of the latter decreased drastically in the 1990s, and the variant *նյութապաշտ [nyutʼapašt]* was restored again (see Figure 11).

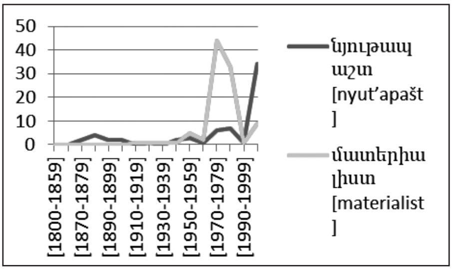


Figure 11

In the case of the triads *կաճառ [kačhar]* – *ճեմարան [čemaran]* – *ակադեմիա [akademia]* and կաճառական [kača˚rakan]– *ուսուցչապետ [usucʿčʿapet]*– *ակադեմիկոս [akademikos]*, although initially the Armenian coinages entered usage, namely *ճեմարան [čemaran]* (between 1800 and 1810) and *ուսուցչապետ [usucʿčʿapet]* (during the 1880s), however between 1930 and the 1940s the variants *ակադեմիա [akademia]* and *ակադեմիկոս [akademikos]* were prevalent (see Figures 12, 13).

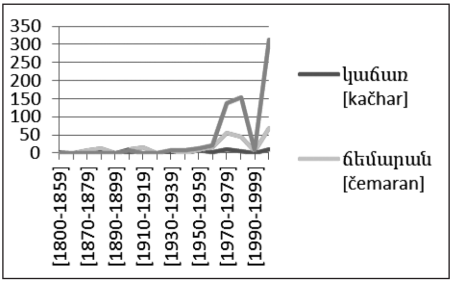


Figure 12

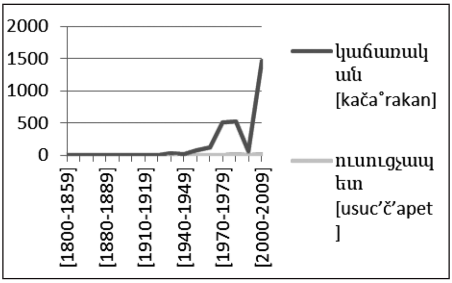


Figure 13

And finally, in the case of the word-pair *ձայնասփյուռ [jaynasp’yu˚r]* – *ռադիո [˚radio]*, since the 1920s the variant *ռադիո [˚radio]* has been used[11], and the variant *ձայնասփյուռ [jaynasp’yu˚r]* occurred very seldom during the 1980s and 2000s (see Figure 14).

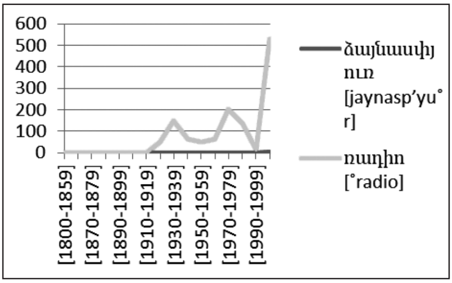


Figure 14

11 “Radio entered our republic in 1927. ... it has become widespread and important in various spheres of our life…” (see Ohanyan, *The Lexicon of Contemporary Armenian Language and the Ways of Enriching It*, 303).

On the basis of the statistical data from the EANC we have also determined which of the above-mentioned variants is the first to occur, and which variants out of the above-mentioned 12 word-pairs and 2 word-triads occur most frequently – whether those are the words created with the inner resources of the language or the borrowed words (Table 2).

Table 2. Determination of which of the above-mentioned variants is the first to occur, and which variants occur most

Number of the word-pair ' or triple	The word-pair or triple	a. the Armenian coinage is the first to occur	b. the borrowing is the first to occur	c. the variants occur almost simultaneously	a. the Armenian coinage occurs more often	b. the borrowing occurs more often	c. the variants occur with equal frequency
1.	կուսակցություն [kusakc'ut'yun] – պարտիա (partia)	✓			✓		
2.	հանրապետություն (hanrapetut'yun) – ռեսպուբլիկա [˚respublika]	✓			✓		
3.	հեղափոխություն [hełap'oxut'yun] – ռևոլյուցիա [˚revolyuc'ia]	✓			✓		
4.	խորհրդային [xorhrdayin] – սովետական [sovetakan]			✓		✓	
5.	նստաշրջան [nstašrjan] – սեսիա [sesia]	✓			✓		
6.	պատգամավոր [patgamavor] – դեպուտատ [deputat]		✓		✓		
7.	սահմանադրություն [sahmanadrut'yun] – կոնստիտուցիա [konstituc'ia]	✓		✓	✓		
8.	մեծամասնական [mecamasnakan] – բոլշևիկ [bolševik]			✓			✓
9.	փոքրամասնական [p'ok'ramasnakan] – մենշևիկ [menševik]			✓		✓	
10.	համայնավարական [hamaynavarakan] – կոմունիստ [komunist]		✓			✓	
11.	նյութապաշտ [nyut'apašt] –մատերիալիստ [materialist]	✓				✓	
12.	կաճառ [kačhar] – ճեմարան [čemaran] – ակադեմիա [akademia]	✓				✓	

13.	կաճառական [kača˚rakan] – ուսուցչապետ [usucʼčʼapet] – ակադեմիկոս [akademikos]	✓				✓	
14.	ձայնասփյուռ [jaynaspʼyu˚r] – ռադիո [˚radio]		✓			✓	

Conclusion

In this article I studied the development of a portion of the Eastern Armenian social-political lexicon since the 19th century, specifically the way in which 14 social-political concepts have been expressed in Eastern Armenian during the 19th to 21st centuries. Over time, these concepts have been expressed by both Armenian coinages and international borrowings, sometimes in parallel. This phenomenon can be studied from various angles, two of which have been resorted to in this paper: data obtained from a language corpus on the number of occurrences for various terms, and data on the social and historical developments of the period in which these terms have been used. The second set of data has been used in an attempt to understand drastic changes in the usage of these terms, coined vs. borrowed.

Frequently, the corpus data simply reflect social-political changes, showing a prevalence of the coined variant here and that of the borrowed variant there. But sometimes, as can be seen through the corpus data, no matter how consistent it was with the current ideological preferences, the term failed to become prevalent in the decades following its introduction to the language, if it was used at all. The reasons for this may be a combination of purely linguistic ones (e.g., when the new word is too long and hard to pronounce in contrast to the existing one) and sociocultural ones (e.g., when the new term is rather short and easy to pronounce, but is not given preference because the older term has already become an accepted unit for the language community). At the outset of this study I had set the following research questions: 1. whether these social-political concepts in Eastern Armenian lexicon were first reflected through Armenian coinages and were later on replaced by words borrowed from/through Russian?

and 2. whether the variants that were introduced earlier are also the ones that have been used more frequently?

The study revealed that:

1. The Armenian coinages were the first to enter usage in only 8 cases out of 14, i.e., in only roughly half of them (particularly, N. 1, 2, 3, 5, 7, 11, 12, 13), and:
2. the variant that historically was the first to occur, whether a borrowing or an Armenian coinage, is on the whole the most frequent to occur in 8 cases out of 14 (particularly, N. 1, 2, 3, 5, 7, 8, 10, 14).

Thus, for both of the research questions, the occurrence of the existing variants has been almost equal, suggesting that choice of the corresponding Armenian terms for the above-mentioned 14 concepts has been determined by a combination of purely linguistic factors and extralinguistic social-political ones, reflecting also the degree of relationship with authority through language.

References

Abełyan, M. *Theory of Armenian Language / Աբեղյան, Մ. Հայոց լեզվի տեսություն / Hayoc’ lezvi tesut’yun*, Vol. 4. Yerevan: Melkonyan Foundation Publishing, 1931.

Ačar˚yan, H. *History of Armenian Language, Part 1 / Աճառյան Հ. Հայոց լեզվի պատմություն, Մաս Ա / Hayoc’ lezvi patmut’yun*. Yerevan: YSU Publishing, 1940.

Ačar˚yan, H. *History of Armenian Language, Part 2 / Հայոց լեզվի պատմություն / Hayoc’ lezvi patmut’yun*. Yerevan: Haypethrat, 1951.

Ałayan, E.B. *General and Armenian Lexicology / Ընդհանուր և հայկական բառագիտություն / Ĕndhanur yev haykakan bar˚agitut’yun*. Yerevan:

YSU Publishing, 1984.

Badikyan, X.G. *Let Us Speak Armenian Correctly. Linguistic Norm. A Dictionary of Words Frequently Used in Armenian / Ճիշտ խոսենք հայերեն: Լեզվական նորմա: Հայերենում հաճախ գործածվող օտար բառերի բառարան / Čišt xosenkʾ hayeren. Lezvakan norma. Hayerenum hačax gorcacvoł bar˚eri bar˚aran*. Yerevan: Luys, 2012.

Barsełyan, H.X. *A Terminological and Orthographic Reference-book / Տերմինաբանական և ուղղագրական տեղեկատու / Terminabanakan yev ułłagrakan tełekatu*. Yerevan: 9-rd hrašalikʾ, 2006.

Eastern Armenian National Corpus, http://eanc.net/, Corpus Technologies, 2007-2009, last modified April 2015.

Galstyan, H.A. *The Right and the Wrong: Mistakes Related to Word Usage, Word Form and Connection in Armenian / Ճիշտը և սխալը: Բառագործածության, բառաձևի և կապակցական սխալները հայերենում / Čiště yev sxalě. Bar˚agorcacutʾyun, bar˚ajevi yev kapakcʾakan sxalnerě hayerenum*. Yerevan: Zangak-97, 2007.

Łazaryan, S. *A Guide of the Decision of the Terminological Committee / Ուղեցույց տերմինաբանական կոմիտեի որոշումների / Ułecʾuycʾ terminabanakan komitei vorošumneri*. Yerevan: Individual publication, 1945.

Martirosyan, H. "An Interview with Armenia. Hračʾ Martirosyan. The Joy of Science" interviewer: R. Grigoryan / Հարցազրույց Հայաստանի հետ: Հրաչ Մարտիրոսյան. Գիտության բերկրանքը / Harcʾazruycʾ Hayastani het. Hračʾ Martirosyani het. HračʾMartirosyan. Gitutʾyan berkrankʾě *iLur.am*, February 17, 2014, http://www.ilur.am/news/view/24947.html.

Murvalyan, A.A. *The Lexicon of the Armenian Language. A Study / Հայոց լեզվի բառային կազմը. Ուսումնասիրություն / Hayocʾ lezvi bar˚ayin kazm ě. Usumnasirutʾyun*. Yerevan: Publication of the NAS of Armenian SSR, 1955.

Ohanyan, H.A. *The Lexicon of Contemporary Armenian Language and the Ways of Enriching It / Ժամանակակից հայոց լեզվի բառապաշարը և նրա հարստացման միջոցները / Žamanakakicʾ hayocʾ lezvi bar˚apašarě yev nra harstacʾman mijˇocʾnerě*. Yerevan, NAS RA Publishing, 1982.

Ohanyan, H.A. "The Manifestations of the Development of Contemporary Armenian / Ժամանակակից հայոց լեզվի բառապաշարի զարգացման դրսևորումները / Žamanakakic' hayoc' lezvi bar˚apašari zargac'man drsevorumnerě," *Lraber Hasarakakan Gitut'yunneri*, 1 (1991): 97-105.

Petrosyan, H.Z. *An Armenological Dictionary / Հայերենագիտական բառարան / Hayerenagitakan bar˚aran*. Yerevan: Hayastan publishing, 1987.

Sargsyan, V. *Political Linguistics and Linguistic Policy / Քաղաքական լեզվաբանություն եվ լեզվական քաղաքականություն / K'ałak'akan lezvabanut'yun yev lezvakan k'ałak'akanut'yun*, Part 1, *Hayoc Ašxarh Daily*, November 20, 2007.

Suk'iasyan, A.M. *Contemporary Armenian Language. Phonetics, Lexicon, Word-building / Ժամանակակից հայոց լեզու. Հնչյունաբանություն, բառագիտություն, բառակազմություն / Žamanakakic' hayoc' lezu. Hnč'yunabanut'yun, bar˚agitutyun, bar˚akazmutyun*, 3rd ed. Yerevan: YSU Publishing, 1999.

Šahumyan, S. *Select Works / Ընտիր երկեր / Ĕntir yerker*. Yerevan: Haypethrat, 1903-1918.

Šalunc', R˚. N. "The Newest Social-Political Terms in the Language of the Media / Հասարակական-քաղաքական նորագույն տերմինները զանգվածային լրատվության լեզվում / Hasarakakan-k'ałak'akan noraguyn terminnerě zangvacayin lratvut'yan lezvum," *Lraber Hasarakakan Gitut'yunneri*, 3 (1996).

Šalunc', R˚. N. "The Social-political Transformations of the Recent Years and the Neologisms in Literary Armenian / Վերջին տարիների հասարակական-քաղաքական վերափոխումները և նորաբանությունները գրական հայերենում / Verjˇin tarineri hasarakakan-k'ałak'akan verap'oxumnerě yev norabanut'yunnerě grakan hayerenum," *Lraber Hasarakakan Gitut'yunneri*, 2 (1993).

AUTORITET PREMA STUDIJI KORPUSA NOVIH I POSUĐENIH ISTOČNOARMENSKIH RIJEČI U SOVJETSKOJ ERI I NAKON NJE

Ključne riječi:
armenski jezik, istočni armenski jezik, studije korpusa, istočni armenski nacionalni korpus, jezik i politika, posuđene riječi, međunarodni izrazi, sinonimi, 21. stoljeće

Sažetak

Značajan odraz odnosa s autoritetom je leksik istočnog armenskog, jednog od dva standardizirana oblika modernog armenskog. U ovom radu prikazani su rezultati studije korpusa razvoja društveno-političkog leksika istočnog armenskog između devetnaestog i dvadeset prvog stoljeća. Leksik iz potonjeg uglavnom se razvio na sljedeća dva načina: stvaranje novih riječi i posuđivanje međunarodnih. Unatoč opsežnom radu na ovoj temi, znanstvenici još nisu u potpunosti istražili međusobnu povezanost tih suprotnih tendencija u istočnome armenskom, osobito kroz studiju korpusa. Istraživačka pitanja koja su vodila ovu studiju su sljedeća: 1. jesu li društveno-politički izrazi u istočnom armenskom leksiku prvi put bili reflektirani kroz izraze nastale iz armenskog jezičnog materijala, a kasnije zamijenjeni riječima posuđenim iz/putem ruskog i 2. jesu li izrazi koji su nastali ranije također i češće upotrebljavani.

VIII

Appendices

BIOGRAPHICAL NOTES

Gordon Dunsire is an independent consultant living in Edinburgh, Scotland. He is chair of the RDA Steering Committee and a member of the RDA Board. He is also a member of IFLA's FRBR Review Group, ISBD Review Group, and Linked Data Technical Sub-Committee. He participates in a number of technical groups developing bibliographic standards and linked open data for the Semantic Web. He publishes and presents widely at international level, and is co-author of *Bibliographic Information Organization in the Semantic Web* co-authored with Mirna Willer.

Dr Charles Farrugia is Malta's national archivist and serves on the Executive Boards of the Association of Commonwealth Archivists and Records Managers and the European Branch of the International Council on Archives. He studied at the Universities of Malta, Northumbria, UCL and the University of Aberystwyth from where his got his doctorate in archive studies. He lectures in archives and records management at the University of Malta and is also a member on a number of EU. He has presented academic papers in a number of countries and lectured on archival themes in various universities. His research interests focus on issue of management of national archive institutions, metrics of performance for the same institutions, and innovative ways on how community memory can be captured, preserved, and accessed in archival institutions.

Dr Grozdana Franov-Živković works at the Institute for Historical Sciences in Zadar, Croatia. She wrote a series of articles, several books and chapters related to the history of everyday life and historical demography mainly in the period of Venetian rule (14th-18th c.) on the basis of Glagolitic sources and sources written in Croatian Cyrillic (bosančica). Since 2010 she has been the collaborator on the series of *Monumenta Glagolitica Archidioecesis Iadertina*, publisher of the Permanent Ecclesiastical Art Exhibition in Zadar and the University of Zadar where twenty-nine books with facsimiles of Glagolitic codices and their transliteration have been issued so far.

In her research she primarily deals with the study of social and church-religious history of late medieval and early modern period mainly based on documents written in Glagolitic and Croatian Cyrillic Script (bosančica), but also in Italian and Latin language. This is reflected in her publications that deal with the confraternities, historical demography, customs, the role of the Glagolitic priests, territorial and administrative organization of government in rural and urban areas, the spiritual organization of the villages, the role of the family, the position of women and children, economy, maritime affairs and fisheries, relations of old Croatian customary and Venetian statutory rights, the development of literacy and education, the relationship between folk (oral) and scholarly (written) culture, development of science and philosophy, history of sensibility, history of mentality all in comparison to the Adriatic and European area.

Dr Anne J. Gilliland (www.dunrunda.co) is Professor and Director of the Archival Studies specialization in the Department of Information Studies, Director of the Center for Information as Evidence, Graduate School of Education & Information Studies, and a faculty affiliate of the Center for Digital Humanities at the University of California Los Angeles (UCLA), USA. She is also the director of the Archival Education and Research Initiative (AERI), a global collaborative effort amongst academic institutions that seeks to promote state-of-the-art in scholarship in Archival Studies, broadly conceived, as well as to encourage curricular and pedagogical innovation in archival and recordkeeping education locally and worldwide.

She is a Fellow of the Society of American Archivists and recipient of numerous awards in archival and information studies. She is an Honorary Research Fellow of the Centre for Global Research, RMIT University in Melbourne and has served as a NORSLIS (Nordic Research School in Library and Information Science) Professor (with Tampere University, Finland; Lund University, Sweden; and the Royal School, Denmark), and as an Honorary Professorial Research Fellow, Humanities Advanced Technology and Information Institute, University of Glasgow. She has taught courses as a visiting faculty member at Renmin University of China in Beijing and the University of Zadar, Croatia.

Her research and teaching relate broadly to the history, nature, human impact and technologies associated with archives, recordkeeping and memory, particularly in translocal and international contexts. Her recent work has been addressing recordkeeping and archival systems and practices in support of human rights, recovery and daily life in post-conflict and diasporic settings; the role of community memory in promoting reconciliation in the wake of ethnic conflict; bureaucratic violence and the politics of metadata; digital recordkeeping and archival informatics; and research methods and design in archival studies.

Dr Zaruhi Grigoryan has lectured at the European Regional Educational Academy, and at the Alternative Scientific Mentoring on Interdisciplinary Studies of Migration, both in Yerevan, Armenia. Among her awards are the Research Fellowship at Karl-Franzens-University of Graz (2010), and the Scholarship and Residence at Translation House Looren in Switzerland (2017). Her publications include English-Armenian Contemporary Dictionary (co-authored with Khachik Grigoryan, Ankyunacar Publishing, 2010, 2014), as well as articles on linguistics and translations.

Dr Mario Katić is Assistant Professor at the University of Zadar, Department of Ethnology and Anthropology. His main areas of interest are pilgrimage, folklore and death studies, urban anthropology and methodology of research. He is co-editor of *Pilgrimage, Politics and Place-making in Eastern Europe* (Routledge, 2014), *Pilgrimage and Sacred Places in Southeast Europe* (Lit Verlag, 2014), *Military Pilgrimage and Battlefield Tourism* (Routledge, 2017) and author of *Death in Dalmatian Hinterland* (Naklada Ljevak, 2017).

Dr Tinka Katić, Assistant Professor at the at the Department of Information Sciences, University of Zadar, Croatia, is working at the National and University Library (NUL) Zagreb, Croatia since 1988. Until 2003 she was working as rare book specialist in the Department of Rare and Older Books. During those 15 years, among other things, she intensively dealt with the old material, especially in the domain of the standardization of automated cataloguing, and also started several projects of retrospective cataloguing and retrospective conversion, which would serve as a basis for the future integral Croatian retrospective bibliography. From 2003 to 2007 she was working as a chief cataloguer maintaining and editing the Library's bibliographic and authority databases (online catalogue). Since 2007 she has been working as a consultant for heritage collections in the NUL's Croatian Department for Librarianship, and in December 2009 she was appointed as head of the Department. From 1998 to 2007 she was editor-in-chief of *Vjesnik bibliotekara Hrvatske* (Journal of Croatian Librarians). She published *Stara knjiga: bibliografska organizacija informacija* [Old Books: Bibliographic Information Organisation] in 2007. She is coordinator of the five-year project, *Production, publishing and maintaining national cataloguing rules: 2014-2018.*

Dr Jelena Lakuš is an associate professor in the Department of Information Sciences at the Faculty of Humanities and Social Sciences, University of J. J. Strossmayer in Osijek, Croatia. She received her PhD (2006) in Comparative History of Central, South-Eastern and Eastern Europe from the Central European University in Budapest, Hungary. Her dissertation, entitled *Books, Society and Culture: Religious and Political Order in Dalmatia (1815-1850)*, belongs to the field of book history. She currently teaches several courses dealing with the history of the book and reading, such as *History and Culture of Communication, Sociology of Books and Reading I, Sociology of Books and Reading II, Croatian Newspapers throughout History* and *Croatian Bibliographies*. She has published over twenty scientific articles on book history and one book (bibliography), *Publishing and Printing Activity in Dalmatia (Zadar, Split and Dubrovnik) in the first half of the 19th century: bibliography of monographs and serial publications* (2005). Her research interests are the history of books, reading and reading habits, old books, retrospective bibliographies.

Dr Rimvydas Laužikas is a Professor of Digital Social Science and Humanities and the Head of Department of Museology in the Faculty of Communication of Vilnius University, Lithuania. His education is in the interdisciplinary SSH fields of educational sciences, archaeology and communication and information sciences. His research interests cover medieval and early modern archaeology, digital culture, digital SSH, information and communication of cultural heritage, and the history of gastronomy. From 1998 to 2008 he was working in the field of museums where he was the chief curator of the collections for Lithuanian Museum of Ethnocosmology and the head of Section of Collections and Curatorialship for Lithuanian Museum's Association. For the past 14 years he has worked as an editor of history textbooks for secondary school.

He became a Lecturer in 2004 (from 2008 an Associate Professor, from 2015 – Professor) in digital SSH in the Faculty of Communication of Vilnius University. He has been actively involved in national projects in the fields of his interests and has also participated in several international projects, and been active in international organizations, networks and working groups (such as Digital preservation Europe, Connecting Archaeology and Architecture to Europeana, Local content in a Europeana cloud, Europeana Food and Drink, COST ARKWORK). He has written numerous articles on the archaeology of XV-XVIII century Lithuanian church and manors, using computers in SSH, digitasation, information and communication of cultural heritage, standardization, museology, and history of gastronomy.

Dr Giovanni Michetti is Assistant Professor of Archival Science at Sapienza University of Rome. His research area is focused on contemporary and digital archives: records management, description models and digital preservation are his main research interests. He has been involved in national and international projects on digital preservation, including ERPANET (Electronic Resource Preservation and Access Network) and CASPAR (Cultural, Artistic and Scientific knowledge for Preservation, Access and Retrieval), both funded by the European Commission. He is currently leading researches within the InterPARES Trust project. He is heavily involved in standardization processes as the Chair of the Subcommittee "Archives and Records Management" and Vice-Chair of the Committee "Documentation and Information" in UNI, the Italian Standards Organization. He is also the Italian representative in a few ISO Working Groups on records management.

Dr Milan Mihaljević is Professor at the Old Church Slavonic Institute, Zagreb, Croatia. He holds PhD in linguistics from the Faculty of Humanities and Social Sciences, University of Zagreb, Croatia. As adjoined member he was Lecturer of the Old Church Slavonic Language, Lecturer of the Slavic Comparative Grammar, and Lecturer of the Generative Linguistics at the Faculties of Humanities and Social Sciences, Universities of Zagreb, Split and Pula. His fields of interest are grammar of the Croatian Church Slavonic and contemporary Croatian language and comparative Slavic grammar.

Dr Milan Pelc graduated from the Faculty of Arts and Humanities at the University of Zagreb in 1984 from which he received his master's degree (1988) and PhD (1992). Since March 1993 he has been employed at the Institute of Art History in Zagreb, and since 2003 has become its director. He was a Fellow of Alexander von Humboldt Foundation in 1994/95, 2005/2008 and 2014. Main fields of his research are history of book illustration and illumination, history of prints, esp. illustrated broadsheets, Croatian renaissance art, history and theory of art history.

Ana Pervan started her career as a student in European Organization for Nuclear Research (CERN), Geneva, Switzerland. After graduating from Digital Library Learning international master's degree, she joined the Library of International Labour Organization (ILO), where she developed four digital services focused on information needs of internal and external library users. Ana is the winner of IFLA / De Gruyter Research Award 2015 with her paper *The role of data curator in the CERN Particle Physics Data-Sharing Community*. Her professional interests are data curation, user studies and creating digital services. For the past year and a half, Ana is an active employee of

General Mills, working as a Regional Content & Platform Specialist for Europe-Australia region.

Dr Gregory Rolan is a research fellow at the Centre for Organisational and Social Informatics at Monash University, Melbourne, Australia, investigating participatory recordkeeping systems. His research comprises the design-science study of systems interoperability, conceptual modelling in recordkeeping informatics, metadata standards-setting, and organisational/social factors in information systems design and implementation. Dr Rolan is currently working on the "Rights in Records by Design" project, exploring rights-based recordkeeping for those who have experienced out-of-home-Care.

Dr Albertas Šermokas, Associated Professor at Vilnius University's Faculty of Mathematics and Informatics, graduated from Vilnius University with a mathematics degree in 1983 and from the Lomonosov Moscow State University with a research degree in the field of computation and mathematics. He has been working at Vilnius University since 1983 and has experience of more than three decades in giving various courses of lectures in mathematics and informatics of Vilnius University's Faculty of Mathematics and Informatics, Faculty of Natural Sciences, Faculty of Communication and Faculty of Economics. His research interests are in mathematical modelling; analysis, architecture and integration of information systems; related research projects and project management; and analysis and modelling of geographical information systems. For more than 25 years, he has been involved in projects for information technologies as a systems analyst and project manager. For the last ten years, he has been the executive of information technology companies Sintagma and Asseco Lietuva, which have implemented information systems projects of various complexity within the areas of culture, education, environmental protection, agriculture, internal affairs and life and other types of insurance in Lithuania, Latvia, Belarus and Poland. During these involvements, he gained solid experience in adapting and employing new technologies in libraries, museums and archives; creating information systems for the management of digital content and documents; and arranging the integration of various information systems.

Dr Tamara Štefanac works in the Croatian Railway Museum where she manages collections of museum and archival material. She holds PhD in Information Sciences and her research is focused on issues of metadata in broad context.

Dr Marijana Tomić is Assistant Professor at the Department of Information Sciences, University of Zadar, Croatia where she has been employed since 2007. She teaches courses in the theory and practice of information organization, cataloguing of old and rare books, book history and digital humanities. She is a member of Standing Committee of the IFLA Rare Books and Special Collections Section and a chair of Section for the History of Books and Libraries of Croatian Library Association (2016-2018). She is a chair of an interdisciplinary scientific project *Digitization, Bibliographic Description and Research of Texts Written on Glagolitic, Croatian Cyrillic and Latin Scripts Until the End Of 19th Century in Zadar and Šibenik Area* which is being carried out at the University of Zadar by the Department of Information Sciences in co-operation with Vestigia Manuscript Research Centre of the University of Graz, Austria. She is involved in the five-year project, *Production, publishing and maintaining national cataloguing rules: 2014-2018*.

Dr Regina Varnienė-Janssen has been Associate Professor at the Faculty of Communication of Vilnius University since 2010, and since 2017, manager of the Research Centre for the Organization of Libraries and Information (BiFORCE). She teaches courses on Management of cultural projects; Management of digital resources and on ERASMUS programme teaching Digital curation and long-term preservation: Recent developments. From 1992 until 2010, she was Deputy Director of the National Library of Lithuania and from 2011 until 2016, Director of the Centre for Digitization and the Virtual Electronic Heritage System at the Martynas Mažvydas National Library of Lithuania. She is the author of over 80 research and methodological publications and reports on bibliographic control, cataloguing, standardization, digitization and information management. Her involvement in the activities of various international and national organizations includes membership in the Consortium of European Research Libraries (CERL) (2003–2007), IFLA's UNIMARC Standing Committee (1999–2003), the Governing Board of the International ISSN Centre (2000–2007) and the Standing Committee of IFLA's Bibliographic Section (2003–2012). In 1998–2010, she was Chairperson of the Technical Committee 47 "Information and Documentation" of the Lithuanian Standards Board, and since 1998 until now, she has been a member of IFLA's ISBD Review Group. During the recent decade, she initiated and managed several national projects including a project for establishing a national orphan works database and harmonizing it with the EU Orphan Works Database (2015), "Presenting Works of the Lithuanian Classical Literature Online" (2011–2014), "Development of the Virtual Electronic Heritage System" (2010–2012), and "Creation of the Integrated Virtual Library Information System".

Dr Mirna Willer is Professor at the University of Zadar, Department of Information Sciences, Croatia. She teaches courses in theory and practice of information organisation at the undergraduate, graduate and postgraduate levels. Among other international body memberships, she has been a member and chair of the IFLA Permanent UNIMARC Committee, member of the Working Group on FRANAR, chair and member of the ISBD Linked Data Study Group, and chair and member of the ISBD Review Group. She is published widely in the field, including the books *UNIMARC in Theory and Practice*, and *Bibliographic Information Organization in the Semantic Web* co-authored with Gordon Dunsire.

CONFERENCE AND SCHOOL PROGRAMME

Tuesday, 25 October 2016
Venue: Aula Magna

9.00 – 10.30
Shifting Conceptual Constructions in Archival Science (Moderator: Greg Rolan, Monash University, Melbourne, Australia)

Professor **Anne J. Gilliland**, PhD, Department of Information Studies, University of California, Los Angeles (UCLA), USA. **Reframing Archival Understandings of Authority, Provenance, Authenticity and Evidence in Support of Humanitarianism**

Assistant Professor **Giovanni Michetti**, PhD, Sapienza - University of Rome, Italy. **From the Principle of Provenance to the Provenance Ontology**

10.30 – 11.00 Coffee/Tea Break

11.00 – 13.00
Authority and Authenticity (Moderator: Sokol Çunga, Central State Archive of Albania, Tirana, Albania)

Vlatka Lemić, PhD, Croatian State Archives, Zagreb, Croatia. **Access to Archival Records of the 20th Century in Croatia: Principles, Regulations and Obstacles in Practice**

Zaruhi Grigoryan, PhD, Lecturer, European Regional Educational Academy, Yerevan, Armenia. **Authority as Reflected in a Corpus Study of Coined and Borrowed Eastern Armenian Words: The Soviet and Post-Soviet Eras**

Professor **Milan Mihaljević**, PhD, Old Church Slavonic Institute, Zagreb, Croatia. **The Authority and Authenticity of Hand-written Glagolitic Texts**

13.00 – 14.30 Lunch Break

14.30 – 16.00
Authority and Authority Control (Moderator: Predrag Perožić, University of Zadar, Zadar, Croatia)

Assistant Professor **Tinka Katić**, PhD, National and University Library, Zagreb, Croatia and Assistant Professor **Marijana Tomić**, PhD, Department of Information Sciences, University of Zadar, Croatia. **Evidence of Provenance and Name Authority Control in the GLAM Community: Three Competing Concepts?**

Gordon Dunsire, Consultant, Edinburgh, UK and Professor **Mirna Willer**, PhD, Department of Information Sciences, University of Zadar, Croatia. **Authority versus Authenticity: The Shift from Labels to Identifiers**

16.00 – 16.30 Coffee/Tea Break

16.30 – 17.30 *Authority and Authority Control* (continued)

Andrea Radošević, PhD, Old Church Slavonic Institute, Zagreb, Croatia. **(Un)quoting Authorities in the Croatian Glagolitic Literature**

Maja Stazić, MIS, Split. **Access to Film Archive Materials: Benefits and**

Limitations of Existing Descriptive Practices in Croatia

17.30 – Tour of the city of Zadar

<u>Wednesday, 26 October 2016</u>
<u>Venue: Hall Iadera (Hall 143, 4th Floor)</u>

9.00 – 11.00
Originals and Copies (Moderator: Stacy Wood, UCLA, USA)

Professor **Milan Pelc**, PhD, Institute of Art History, Zagreb, Croatia. **Prints between Originality, Authenticity and Authority in Early Modern Culture: Examples from the Valvasor Collection in Zagreb**

Professor **Erich Renhart**, PhD, VESTIGIA Manuscript Research Centre, University of Graz, Austria. **The "Original" and the Copies: Identity and Originality**

Tamara Štefanac, PhD Candidate, Department of Information Sciences, University of Zadar, Croatia. **Use of Original or Surrogate Records in Museum Exhibitions**

11.00 – 11.30 Coffee/Tea Break

11.30 – 13.00
Digital Transformations and Provenance (Moderator: Robin Margolis, UCLA, USA)

Professor **Rimvydas Laužikas**, PhD, Faculty of Communication, Department of Museology, Vilnius University, Lithuania. **Heritage as the Present: Cultural Heritage Transformations in Digital Culture**

Associate Professor **Regina Varnienė-Janssen**, PhD, Faculty of Communication, Institute of Library and Information Sciences, Vilnius University, Lithuania. **Provenance in the Context of Digital Cultural Heritage Content: The Lithuanian Approach**

13.00 – 15.00 Lunch Break

13.30 – 14.30 - Museum of Ancient Glass Tour

15.00 – 17.30 Workshops

Venue: Hall Iadera (Hall 143, 4th Floor)
Workshop: *Systems for Authenticity: Using ISO 16175*
James Lowry, Lecturer, and **Meg Venter,** Liverpool University Centre for Archival Studies (LUCAS), Liverpool, UK.

Venue: Rectorate Building, Room 2.3, Liburnia
Workshop: *Authority and Provenance as Linked Data in the Semantic Web*
Gordon Dunsire, Consultant, Edinburgh, UK, and **Predrag Perožić**, PhD, and Professor **Mirna Willer**, PhD, Department of Information Sciences, University of Zadar, Croatia.

18.00 Conference Dinner
Venue: University of Zadar Rectorate, Ground Floor

<u>Thursday, 27 October 2016</u>
<u>Venue: Aula Magna</u>

9.00 – 10.30
Evidence and Evidencing (Moderator: Vladan Vukliš, University of Banjaluka, Bosnia and Herzegovina)

Assistant Professor **Jelena Lakuš**, PhD, Department of Information Sciences, Faculty of Humanities and Social Sciences, J. J. Strossmayer

University in Osijek, Croatia. **Examining the Evidence of Reading in the Past**

Mr. Phil. **Aida Škoro Babić**, Archives of the Republic of Slovenia, Senior Archivist, PhD student, University of Maribor, Slovenia. **Archival Records of Military Courts as Evidence**

10.30 – 11.00 Coffee/Tea Break

11.00 – 12.30
Evidence and Evidencing (continued)

Stacy Wood, PhD Candidate, Department of Information Studies, UCLA, USA. **Police Body-cameras and the Privatization of the Chain of Evidence**

Kathy Carbone, PhD Candidate, Department of Information Studies, UCLA, USA. **Evidencing and Moving Narratives: Two Artists in the Archives**

12.30 – 14.00 Lunch Break

14.00 – 16.00
Libraries and Archives on the International Agenda (Moderator: James Lowry, Liverpool University Centre for Archival Studies (LUCAS), Liverpool, UK)

Ephrem Ishac, Senior Postdoctoral Researcher, Syriac Liturgical Theology (Syriac Anaphoras Project), VESTIGIA Manuscript Research Centre, University of Graz, Austria. **Manuscripts as Refugees: Losing Identity?**

Charles J. Farrugia, National Archivist, National Archives of Malta, Rabat, Malta and **Ana Pervan**, Jr. Library and Information Management Officer, International Labour Organization Library, Geneva, Switzerland.

Indigenous Peoples on the National and International Agenda: Where Archives and Libraries Meet

Vlatka Lemić, PhD, Croatian State Archives, Zagreb, Croatia. **ICARUS. Co:op Project**

16.00 – 16.30 Coffee/Tea Break

16.30 – 18.00
Workshop: *ICARUS: Topotheque.*
Vlatka Lemić, PhD, Croatian State Archives, Zagreb, Croatia.

<ins>**Friday, 28 October 2016**</ins>
<ins>**Venue: Aula Magna**</ins>

9.00 – 10.30
Methodological Approaches (Moderator: Tamara Štefanac, University of Zadar, Zadar, Croatia)

Assistant Professor **Mario Katić**, PhD, Department of Ethnology and Anthropology, University of Zadar, Croatia. **Applying Contextual Analysis: The Example of Mirila of the Dalmatian Hinterland**

Kristijan Kuhar, Research Assistant, Old Church Slavonic Institute, Zagreb, Croatia. **Methodology for Researching the Provenance of Old Slavic Manuscripts**

10.30 – 11.00 Coffee/Tea Break

11.00 – 12.30
Methodological Approaches (continued)

Grozdana Franov-Živković, PhD, Croatian Academy of Sciences and

Arts, Department of History, Zadar, Croatia. **The Glagolitic Confraternities' Books of the Zadar Area and their Value as Historical Documents**

Andreja Dragojević, Sanela Huzjak, Marijana Mimica Tkalčec and Igor Kozjak, Croatian State Archives, Zagreb, Croatia. **Non-Destructive Conservation Research Methods Applied to the Statute of Dubrovnik from 1437**

12.30 – 14.00 Lunch Break

14.00 – 15.30 Panel Session
On the Edge of Something: Exploring 3rd Wave Records Continuum Thinking

Professor **Sue McKemmish**, PhD, **Belinda Battley**, PhD candidate and **Greg Rolan**, PhD candidate, Faculty of Information Technology, Records Continuum Research Group, Monash University, Melbourne, Australia

15.30 – 16.00 Coffee/Tea Break

16.00 – 16.45 Wrap-up Discussion and Conclusion of the Conference

Saturday, 29 October 2016

9.00 – 16.00 Excursion: Vrana, Maškovica han, Krka National Park

Grafičko oblikovanje i prijelom
Sveučilište u Zadru

Tisak

Naklada
200 primjeraka

Tiskano u studenom 2018.

Graphic design
University in Zadar

Printed by

Issued in
200 copies

Printed in November 2018.