

PROVENANCE IN THE ALM COMMUNITIES *THREE COMPETING CONCEPTS?*

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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://npk.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 record¹⁵ 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 collection²⁰ 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,” *Summer 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.

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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 LRM³⁸ 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-I1 (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's⁴² 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-RLM, CIDOC-CRM and RiC

IFLA-RLM/Entity	CIDOC-CRM/Class	RiC/Entity
<u>LRM-E5 Item</u>	<u>E18 Physical Thing</u> <u>E78 Collection</u>	<u>RiC-E1 Record</u> <u>RiC-E2 Record</u> <u>Component</u> <u>RiC-E3 Record Set</u>
<u>LRM-E6 Agent</u> <u>LRM-E7 Person</u> <u>LRM-E8 Collective</u> <u>Agent</u>	<u>E39 Actor</u> <u>E21 Person</u> <u>E74 Group</u>	<u>RiC-E4 Agent</u>
<u>LRM-E11 Time-span</u>	<u>E52 Time-span</u>	<u>RiC-E12 Date</u>
<u>LRM-E10 Place</u>	<u>E53 Place</u>	<u>RiC-E13 Place</u>

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

IFLA-LRM	CIDOC-CRM	RiC
<p><u>LRM-R10</u> Domain: Item Relationship name: is owned by/owns Range: Agent</p>	<p><u>P51</u> Domain: Physical thing Property name: has/is former or current owner of Range: Actor</p>	<p><u>RiC-R26/33</u> Relation Domain: Record Relation Name: is/was owned by / owns/was owned by Relation Range: Agent</p>
	<p><u>P52</u> Domain: Physical thing Property name: has/is current owner of Range: Actor</p>	<p><u>RiC-R89/95</u> Relation Domain: Record Component Relation Name: is/was owned by / owns/was owned by Relation Range: Agent</p>
	<p><u>P49</u> Domain: Physical thing Property name: has/is former or current keeper of Range: Actor</p>	

47 CIDOC-Conceptual Reference Model, 65.

IFLA-LRM	CIDOC-CRM	RiC
		<u>RiC-R154/164</u> Relation Domain: Record Set Relation Name: is/was owned by / owns/was owned by Relation Range: Agent
	<u>P50</u> Domain: Physical thing Property name: has/is current keeper of Range: Actor	<u>RiC-R25/32</u> Relation Domain: Record Relation Name: is/was held by / is/was holder of Relation Range: Agent
		<u>RiC-R88/94</u> Relation Domain: Record Component Relation Name: is/was held by / is/was holder of Relation Range: Agent
		<u>RiC-R152/162</u> 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
		<u>RiC-R155</u> Relation Name: was accumulated by / accumulated Relation Range: Agent
RiC-R27 <u>Relation Name: was addressed to / was addressee</u> Relation Range: Agent		RiC-R156 Relation Name: was addressed to / was addressee Relation Range: Agent
<u>RiC-R29</u> Relation Name: was authored by / authored Relation Range: Agent	<u>RiC-R91</u> Relation Name: was authored by / authored Relation Range: Agent	
		<u>RiC-R157</u> Relation Name: was arranged by / arranged Relation Range: Agent
		<u>RiC-R158</u> Relation Name: was assembled by / assembled Relation Range: Agent
<u>RiC-R30</u> Relation Name: was collected by / collected Relation Range: Agent	<u>RiC-R92</u> Relation Name: was collected by / collected Relation Range: Agent	<u>RiC-R160</u> Relation Name: was collected by / collected Relation Range: Agent
<u>RiC-R31</u> Relation Name: was created by / created Relation Range: Agent	<u>RiC-R93</u> Relation Name: was created by / created Relation Range: Agent	<u>RiC-R161</u> Relation Name: was created by / created Relation Range: Agent
<u>RiC-R35</u> Relation Name: was written by / wrote Relation Range: Agent	<u>RiC-R96</u> 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 prima-

ry 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
<u>RiC-R646</u> Relation domain: Date Relation Name: was creation date of / had creation date of Relation Range: Record	<u>RiC-R711</u> Relation domain: Place Relation Name: was creation location of / was created at Relation Range: Record
<u>RiC-R649</u> Relation domain: Date Relation Name: was creation date of / had creation date of Relation Range: Record Component	<u>RiC-R717</u> Relation domain: Place Relation Name: was creation location of / was created at Relation Range: Record Component
<u>RiC-R653</u> Relation domain: Date Relation Name: was creation date of / had creation date of Relation Range: Record Set	<u>RiC-R723</u> Relation domain: Place Relation Name: was creation place of / was created at Relation Range: Record Set
<u>[CIDOC-CRM] P78</u> Domain: Time-span Property name: is identified by/identifies Range: Time Appellation	<u>[CIDOC-CRM] P87</u> Domain: Place Property name: is identified by/identifies Range: Place Appellation
<u>[CIDOC-CRM] P86</u> Domain: Time-span Property name: falls within (contains) Range: Time-span	<u>[CIDOC-CRM] P53</u> Domain: Physical Thing Property name: has/is former or current location of Range: Place
	<u>[CIDOC-CRM] P54</u> Domain: Physical Thing Property name: has/is current permanent location Range: Place

Entity: Time-span/Date	Entity: Place
<u>LRM-R35</u> Domain: Res Relationship name: has association with / is associated with Range: Time-span	<u>LRM-R33</u> Domain: Res Relationship name: has association with / is associated with Range: Place
<u>LRM-R36</u> Domain: Time-span Relationship name: has part / is part of Range: Time-span	<u>LRM-R34</u> 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 in Book 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,” *Summer 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.