CREATING HEADINGS: THE CHANGE TOWARD EFFECTIVE, ORGANISED AND ACCESSIBLE INFORMATION

Summary:
Records managers and archivists were already relatively early encountered with problems of creating headings, how to build different thesauri, more advanced use of filing plans and also with the preparation of indexes and contents of archival finding aids. Encountered methodological problems were solved by individual archivists, looking for the most appropriate solutions and thus establishing their own systems. With the introduction of new IT solutions, especially in building archival databases such a method is unsuitable, as well as inefficient and ineffective. On the basis of practical experiences when describing archives between the years 2006-2009, it was proved in practice, that there is a real need for an in-depth treatment of problems relating to the creation of headings, descriptors and thesauri. It is therefore necessary to establish and standardize guidelines for creating headings and thesauri, which must be designed in such a way, that they will be suitable for the user on one and for professionals on the other hand. In the article authors present some theoretical foundations for the creation of headings, descriptors and classifications and, on the basis of some case studies, show practical possibilities of their creation.

1 INTRODUCTION

In the field of records management and archives we can very early find tendencies to provide faster access to documents, including the problems of creating headings, thesauri, classifications and indexes of archival finding aids. These tendencies have been exercised in different ways which led to the development of various systems for managing content of documents, both in classical as in electronic form (Vilfan, 1956; Subject Indexing for Archives, 1992, Duranti 2000). Methodological problems were solved individually, while looking for a good solution and thus creating own system. However, these systems were sufficient only to provide faster access to documents described in traditional, paper based finding aids. With the introduction of new IT solutions, especially in building shared archival databases, such method is not only unsuitable, but also inefficient and ineffective. Due to the mutual incompatibility of local systems, it is often a barrier to the development of shared systems (Novak 2007).

Systems for content identification may be systemized according to the purpose, objectives and implementation to a thesaurus, thesauri and classifications (Urbanija, 1996, Šauperl 2000, 2007). Each of them has its own internal logic of creation and use. Their importance within the contents of archival value lies in the rational placement into the system of managing the whole of archival material and also in the system of professional work. Thesauri and classifications are in fact crucial in the arrangement, description and transfer of records and archives (Novak, 2007).
Systematic approach to the creation of headings, classifying and creation of systems for content identification in the contents of archival value represents only one of the solutions in the treatment and maintenance of records and archives. The basic frame for the implementation of rationalization represents a standardized form of records on the contexts in which the material is located. These standardized records are created in generally accepted archival standards ISAD(g)2 – General International Standard Archival Description, Second Edition, ISAAR(CPF)2 - International Standard Archival Authority Record for Corporate bodies, Persons and Families, ISDF - International Standard for Describing Functions and ISDIAH – International Standard for Describing Institutions with Archival Holdings. Those standards enable the creation of archival information systems based on standardized data structures. However, the successful mapping of archival content in a standardized data structures is of great importance because it is the only means of successful data exchange (ISAD (g) 2, 2000, ISAAR CPF2, 2004, ISDF, 2008 ISDIAH, 2008).

However, new ways of organizing information and consequently providing quicker and easier access to content that is stored require integration with other disciplines and adaptation of experiences and examples mainly from the records management, librarianship, information science, etc. This is even more true for the creation of headings and the construction and use of thesauri, where the experiences from the librarianship and administration come to effect (Regulation on establishing retention periods of documents, 2009; Kajič, 2004; Vrezec 2004; Bizjak, 2007; Kopač 2007).

2 THE USE OF HEADINGS IN ARCHIVAL THEORY AND PRACTICE

On the basis of practical experiences when describing archives between the years 2006-2009, it was proved in practice, that there is a real need for an in-depth treatment of problems relating to the creation of headings, descriptors and thesauri. It is therefore necessary to establish and standardize guidelines for creating headings and thesauri, which must be designed in such a way, that they will be suitable for the user on one and for professionals on the other hand. In doing this it should be considered that a certain term can have in a given context the same meaning for the user and experts/archivists while in different context the expert/archivist would need more detailed definition of that same term, or just on the contrary, the user would need detailed clarification of that same term. In other words, it is necessary to establish a relationship between a single concept, users and experts/archivists (user ← term → expert/archivist; expert/archivist = user; the user > expert/archivist; user < expert/archivist). This is just one aspect, which was presented by Zeng and Žumer (2009a and b), where the meaning of the certain term varies according to different circumstances. The library science theory and practice deals quite a lot with this question in recent years (see e.g. Hjørland, 2009; Rorisa & Iyer, 2008). It is a solution for which it makes sense to transfer it to the archival field.

The creation of authority records of corporate bodies, personal and family names, geographical names and subject headings in archival theory has several dimensions. In traditional archival theory and practice the creation of authority records is, as a rule, limited to the authorized forms of the names of creators of archival fonds and collections, but at lower levels of the description it has not yet been carried out in the relevant range (Novak, 2007). That is the reason of frequent problems faced by users when looking for certain material that is not properly defined with a specific keyword or heading. And this inappropriate definition is what causes problems for users and experts/archivists. Let me give an illustration of some examples. Users often encounter problems of the same description of places in different
locations or the same description of the various geographic terms, e.g. Mirna - the name of the place¹, Mirna - the name of the river²; Lipnica as Slovenian form of the name of the town Leibnitz in Austria³, Lipnica, near Tuzla.⁴ Or place with the same name in different locations, e.g. Apače (near Kidričevo)⁵, Apače (in Apaško polje)⁶. Users often find also two or more persons of the same name and surname, e.g. Janez Novak - in one case, an oncologist, and the other an expert in the field of metrology and the third a lawyer. Without additional elements that explain who is who, it is impossible for the user to determine the right person.⁷ At the end we must not forget even the most complex problem we are facing in the archival science, the location of individual terms in space and time. E.g. the municipality in 1850 represents in a given time and place another entity as a whole rather than the municipality in 1941 or after 1995, etc.

That is the issue of extreme complexity and indeterminate and confused situation in this area makes the unified description and dealing with archival content impossible. In particular, this problem comes to light when starting to describe archives with using specialized computer programs for the description and consequently starting with the construction of shared databases.

3 THE CURRENT STATE IN CREATION HEADINGS IN SLOVENIAN ARCHIVAL THEORY AND PRACTICE

Since the Slovenian public archives started with the description of archives with the selected software tool within the system SIRA_net (Slovenian Archival Information System), there was a need for a joint discussion regarding the use of keywords and headings and their process of creation as well as their use in their daily professional work. Therefore a workshop on the creation and use of various types of headings that can be used by active users in the information system was organized. The workshop which was attended by representatives of all Slovenian archives, highlighted practical experience in the design of headings and the problem of creation of individual types of headings in accordance with international standards, their interconnection and integration with the units of description and the reasons for the introduction of authority control regarding headings in the shared database within the system SIRA_net.

The discussion revealed quite different views on the meaning and purpose of the use of headings, but especially on the intensity and depth of the description of individual headings and on the creating of authority records of individual heading. It turned out that differences arise primarily from the different current professional practice in the use of headings, which have so far been largely limited to creation of traditional indexes of paper based archival finding aids.

¹ Mirna is a small town in Slovenia situated along the road Trebnje – Sevnica and along the river with the same name as a town.
² Mirna is 44 km long river in Slovenia.
³ Lipnica (Leibnitz) is a small town in south of Austria on the border with Slovenia.
⁴ Lipnica is a small town in the municipality of Tuzla in Bosnia and Herzegovina.
⁵ Apače is a small settlement in the municipality Kidričevo.
⁶ Apače (German: Abstall) is a bigger settlement in the municipality Apače, in the near of the border with Austria.
With the construction of shared database of Slovenian public archives headings received beside already known also a new dimension of usability. Either they are one of the tools that help to deal with contexts, or they represent an important tool for searching within large databases. For this reason, a request to define the professional archival standards concerning the creation and use of headings appeared at the end of the workshop.

Problem archivists are facing unlike librarians who have used since a long time so called catalog cards and keywords, is also that in the past, when archives were described and processed traditionally, we did not use the system of headings and keywords, as their creation was meaningless because of a large quantity of material. That led in most cases to the lack of appropriate theoretical knowledge on which it would be possible to build up the adequate system.

As mentioned earlier, has the creation of authority records of corporate bodies, persons and families, geographical names and subject headings in archival theory, multiple dimensions.

In practical work archivists have at the moment the least difficulties when creating authority records of corporate bodies. They have more problems with the creation of authority records of persons and families, and geographical names, but most problems occur in the creation of subject headings.

The problem archivists are facing when creating headings, is the fact, that we have to manage not only the content but also the context, which means the positioning of archives and the establishment of appropriate links between content and context, which allows users a proper understanding of archival material in a given space and time.

3.1 THE CREATION OF AUTHORIZED NAMES OF CORPORATE BODIES

The theoretical foundations for the creation of authority files of corporate bodies, persons, and families, are given in the standard ISAAR (CPF)2. When capturing data about corporate bodies, specific criteria, on which we can define a corporate body, should be considered. In traditional archival theory and practice, before the introduction of ISAAR (CPF)2, the system for the creation of authorized names of corporate bodies on the level of fond was fairly well designed. During the transition to the description in the framework of a shared database, it was therefore only upgraded, which did not, as it can be seen from the created authority records of corporate bodies, cause major problems. In the new database other authority data, such as the history, places, internal structure, mandates/sources of authority, and functions, occupations and activities were added to the existing data of corporate bodies. Doing this, we got the standard consistent authority record of corporate body, which can be used by users of the system. A few more problems appear in understanding the fact, that on different levels of description also creators can change, that means that beside the creator of the fond, other corporate bodies or individuals can appear which of course does not affect the creation of authority records of corporate bodies. This is the consequence of the fact, that archivists were used to describe fonds at higher levels and in larger completed units, however, the description at the lowest level was restricted to those archives that were more frequent or more important.

However, difficulties in designing and querying for information in connection with corporate bodies are caused also by inconsistent capturing of authority data of authority records themselves, as well as of the content. Although the data model and data capturing, supported by ISAAR (CPF)2, are standardized, a series of problems such as large amounts of
corporate bodies, to be captured, then lack of resources and references mainly for the older period, and the difficulty of a clear recognition of forms of the content of descriptors in time and space, occurs.8

3.2 THE CREATION OF PERSONAL AND FAMILY NAMES

As mentioned previously, the archivists face more difficulties in the creation of personal and family names as in the creation of authorized names of corporate bodies. In addition to large number of people the data of which need to be captured and placed in time and space, the problem often lies in the fact, that, when describing the content of archives we often have to deal with people, who have the same name and surname (e.g. more people with the name Janez Novak) or persons, where due to inconsistent writing or transcription of the name archivists doubt whether they have to deal with one or several persons (e.g. Otmar Reiser, Otmar Reisser or Otmar Reißer). In these cases, users are confronted with the problem, since it is impossible to establish whether we deal with one or more persons. In addition, archivists must also consider the fact, that each person appears in conjunction with very different content in different types of material, and proper placement and connecting people with content is of course a big challenge for archivists.

The standard ISAAR (CPF) tried to eliminate that problem by providing additional attributes. To successfully solve these problems, it is necessary to identify a person in space and time, to determine its relationship to the archives, the relationship to an event or situation, that has created the preserved archival material, and relationship to other people who are in a relationship to the person (Novak, 2007, p. 126).

Looking at the current situation, we see that the practice in the Archives is very different. At the moment, it is commonly adopted, but the unwritten rule that we have for technical reasons of the system, deviated from the natural sequence (e.g. Janez Novak) of formation of personal names. Thus, in all Archives personal names are formed in accordance with the Slovenian Orthography in inverted form (e.g. Novak, Janez). The first difference appears already in use of punctuation, as some archivists do not use it, therefore it is often difficult to distinguish the name from the surname and vice versa – e.g. Bello del Nicolo’, John James...

Often we come across the entries, for which after the reviewing the authority record it can be proved, that we are dealing with the same person, such as e.g. entries belonging to Mozart. The first entry: Mozart, Wolfgang Amadeus, and the second: Mozart, Wolfgang - in a different context and using different names. In this case we have to deal with the inconsistency of the archivist, as by performed comparing of the dates of birth one can soon find out, that it is the same person. There are two possible solutions:

- First: the different form of the name should be specified in the authority record of a person as another form of the name, which enables, as a cross-reference the search.
- Second: one valid name should point with the see-also-reference to another closely related and a valid name, depending on how it the query is set up in the system.

The librarians are solving the issue by adding the year of birth and death (in the case of an already deceased person), but they use also other qualifiers, such as the profession.9 Taking

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into account that we basically already closely approached that rule, as developed by librarians, it would be useful to introduce it also in archival theory and practice.

3.3 THE CREATION OF GEOGRAPHICAL NAMES

The creation of geographical names include places/towns/villages, their parts, streets, squares, roads, countries, region, rivers, seas, canals, waterfalls, lakes, oceans, hills, valleys, mountains, forests, parks, caves, deserts, continents, buildings and other independent facilities. Based on the classification of geographical names in the Register of Geographical Names, maintained by the Mapping Authority of the Republic of Slovenia, we created various classes of geographical names:

- **Domicilonimi**: this class includes all geographical names of towns, markets, villages, hamlets, parts of cities, neighborhoods, streets, and squares. Here we took over from an external source the official list of all settlements in the Republic of Slovenia, as it turned out, that it does not make sense, to create own Glossary of geographical names of settlements.

- **Domusonimi**: this class of geographical names includes public buildings, private buildings, religious buildings, castles, farms, churches and other important facilities.

- **Hidronimi**: this class of geographical names includes running water, rivers, streams, torrents, unsteady flows, canals, springs, estuaries of the delta, falls, waterfalls, river ferries and river ports, lakes, parts of lakes, lake inlets, lake ports, less standing water, ponds, puddles, reeds and seas, part of the sea, sea bays, sea harbors, and saline. Since partially relevant glossaries already existed, they were imported into the system from external sources to avoid duplication and to simplify the work of archivists.

- **Insulonimi**: the class includes islands, the lake islands, river islands, dunes in the middle of the river, rocks, shoals, and reefs.

- **Oronimi**: the class includes mountains, hills, hill tops, hill, plateaus, ridges, passes, parts of the hills, hillsides, backs, ridges, valleys, ravines, gorges, capes, peninsulas, caves, sinkholes, sinks, lonely rocks, and boulders. Also here relevant glossaries already existed and were imported into the system.

- **Regionimi**: the class includes states, municipalities, cadastral municipalities, administrative units, landscapes, wasteland, and forest area including their historical forms.

However, doing their work, archivists place geographical names in space and time, therefore in creating them they often face problems, such as changing of individual geographic entities through time and consequently the growth and development of these, with renaming, combining, identification of predecessors and successors, and relationships between subordinated and superior units.

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10 Since it was not possible to find the correct English translation for all listed classes, they are given in the original language.

11 Basic data (the name of the settlement, the name of municipality and the link to an external source) were given for use on 29. 10. 2009 by the Society for the digitisation of Slovenia, Geopedia.


Because archivists when dealing with geographical names get in touch also with historical names of individual geographic entity, the historical descriptions, so called “arheotoponimi” were added in addition to all previous mentione geographical name forms. The concept of the word derives from the term "archaic" (ancient, old fashioned, outdated, originally), so this class only includes outdated forms of geographical names that are no longer in use or names that are still used, but do not form an geographical entities, but over time became part of another, larger geographical entities.

Since in practice we have to deal with geographical entities, which have been changed through time and space, simple glossary is not very useful, because without adequate conceptual and contextual links users, among which, of course, the archivists consider themselves, will not get adequate information. In designing of glossaries of geographical names, archivists must keep in mind, that the majority of users do not know the former names for individual geographical entity appearing in the archives, but conduct the search with today's names. It is therefore necessary to help users to get the desired information and desired archives.

3.4 THE CREATION OF SUBJECT HEADINGS

Subject headings are words or phrases which characterize the content and are usually expressed in normal Slovenian. Subject headings are used to provide access to the contents of archives, since they reflect the content of the material. The purpose of the creation of subject headings is to help the user to find the desired archives easily and quickly. This is a controlled vocabulary of terms and the corresponding structure of semantic links.14

In archival theory and practice subject headings mean all those keywords and headings that are not geographical names or names of companies, persons, and families. For subject headings nouns, adjectives, verbs and adverbs can be used, as an integral part of it, but as the exception rather than the rule, also conjunctions can be used.

The issue of creating subject headings is fairly new field for the archival profession, with which theoretically archivists are not engaged indeed. Although the tradition of such systems is already very old for librarians, archives have never developed it, because of the nature of the material they work with.

In processing of archives and setting of subject headings, archivists must be aware, that the purpose of their creation is in providing access to material, as they allow the querying for subjects in the archival database. Their design represents a special form of setting keywords using one or more standard words to give concise document content. The objective of creating a subject heading is certainly the identification of the subject, discussed in the material. However, we should not forget the links with other subjects. Archivists have to be aware that users have increasing demands, and at the same time they also expect a rapid response to their inquiries. Therefore a serious and thorough approach to the question the creation of subject headings is required.

Archivists are constantly faced with new contents, which of course require new subject headings. Here we face a whole range of problems, such as:

1. changing of the meanings of subject headings through history, which in practice requires the construction of complex glossary of subject headings, where individual subject headings must include additional explanation or specific time frames;

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2. changing of the subject headings in space, like e.g. use of dialect or slang, and

3. obsolescence of subject headings and content, which characterize it (Novak, 2007, p. 134).

There are two ways of creating subject headings. They can be created by index creators according to specific procedures based on textual designed databases or by describers on the base of documents. However, if we deal with relational databases and the like, the subject headings can chosen from a special pre-made list, which may be normative or not.

The authority file allow the control of subject headings, it can act as a thesaurus, which connects the related, subordinated and superior terms. In determining subject headings relating to the contents of archives, archivists have to deal with the subject headings that are unknown to the majority of average users, or misleading, since the same subject heading can have different meaning. For this reason, in the practice, it makes sense to use authority subject headings in archival theory and practice.

For the same reason the given subject headings must be also very accurate, just in case this is not possible, we can use the more general designation. Thus, the subject headings may consist of one word and then we talk about simple headings, or are composed of several words. In this case we are talking about composed headings.\textsuperscript{15}

Creation of subject headings raises also the question of the use of singular or plural as well as natural and invert order or sequence.

The creation of subject headings, especially controlled, is an extremely complex process in which we must always keep in mind the importance of subject headings for searching for relevant information. In any case, the creation of a subject headings system brings many positive attributes, which archivists at the moment are not sufficiently aware of.

\textbf{4 CONCLUSION}

Without a doubt we can assert that headings and descriptors represent an important tool in the process of creation of objective information on the archives. As such, they serve different purposes in the system of arrangement, description and use of the preserved archives. Therefore, the values of individual headings and descriptors must be standardized in both content and also in terms of the creation of their recording in the system. For this reason, it would be beneficial for the Slovenian archival service to continue with good practice of adapting and importing descriptors from trusted external sources and their integration into the Slovenian archival information system. In the case when the import from external sources is not possible or not meaningful, it is necessary to create them in the process of capturing data freely but in accordance with the needs and demands of professional standards. In doing so, archivists must follow the rules of capturing data in the respective system. Connectivity between the headings themselves or headings and other entities in the information system must be done so that there will be no misunderstanding as to the content as well as the appearance whether in the process of their capturing, amending and use. Archivists are to decide in which cases and how many additional headings they will use.

However there remains a whole range of important issues, such as whether it would be necessary to standardize different types of headings, which should be mandatory to use at different levels of description within fonds or archival collections. Also the question of

\footnote{\textit{More about headings see Šauperl, 2003, p. 83.}}
creating subject headings remains open, especially according to the possibility of a combined inquiry by title, content, etc. and the technological environment that enables only the creation of a simple system of headings, without the possibility of establishing complex relationships, as this is, for example, allowed by the visual thesaurus.

The objective in establishing a unified system of headings should be the preparation of guidelines for the creation of descriptors and thesauri in the contents of archival value, which can be used in practice for the description of archives by any software tool. Since it is likely that the software tool will change, it is necessary to provide such a processing of the contents that will not be affected by the change of the system. However, since the same system for the description of archives is used in all Slovenian public archives, the results must be searched for in the unification of the system of the creation of headings and the establishment of a common thesaurus in a common data base.

According to relatively limited experiences in archival theory and practice, it will be necessary to lean on the methodological principles for subject headings used by librarians (Kovač, 2001, Zalokar, 2004). However, one should not talk about an easy transfer of theoretical and practical knowledge of librarians, since the nature of archival and library material requires different solutions. This was confirmed also by the comparison of library and archival standards for the description of the material and its creators carried out in 2009 (Semlič Rajh & Šauperl, 2009). Because of the lasting nature of archives, the processing of the contents raises questions the library profession does not need to answer.

**SOURCES AND LITERATURE**

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