Abstract
The chapter indicates problems which may face indexers unfamiliar with these languages and shows how the problems were dealt with in the context of compiling an annotated bibliography on the Khoe and San at the University of Botswana. Gives a brief history of the Basarwa Bibliography Project (now the Khoe-San Bibliography Project). Provides a style and typing guide for the Khoe, Ju, !Ui and Taa languages. Shows that the use of click signs at the commencement of keywords to be used for indexing creates special problems when typed on a computer, explaining how these were approached in The Khoe and San: an annotated bibliography. Also points out the confusion that may exist when identifying which Khoe-San language is being referred to in a text, as there has been a great lack of consistency in their nomenclature. Provides an overview of the earlier and more recent history of the writing of Khoe-San languages. Emphasises the fact that, currently, several initiatives regarding writing in the Khoe-San languages are being undertaken by the communities themselves. This is by means of oral history projects in the countries of Southern Africa where the languages are still spoken.

Introduction
The suggestions which follow, regarding the indexing of Khoe-San languages, result from the practical experience gained while working for several years with the Basarwa Bibliography Project. The word ‘Basarwa’ is the term used in the Setswana language to describe the San or Bushman people. The reason for the use of the term ‘Khoe-San’ will be explained later in the chapter. The Project was established in 1993 under the auspices of the National Institute of Development Research and Documentation (NIR) at the University of Botswana. In 2001 the Project was taken over by the University of Botswana Library. The objectives of the Basarwa Bibliography Project were as follows (Monageng in Lane 2001:74):
- To acquire, as far as possible all contemporary published materials relating to the Basarwa of Southern Africa, that is books, reports, manuscripts, theses, policy documents, journal articles as well as unpublished or ‘grey literature’.
• To process this material by the use of a computerised database to facilitate easier retrieval. The processing included making short abstracts of each document.

• To publish the abstracts as a series of bibliographies.

By 1995, when a workshop on Basarwa research was held at the University of Botswana, 300 publications had been entered into the database and a draft volume of the bibliography had appeared. It should be noted that the Bibliography Project was established at the same time as a multidisciplinary programme currently designated the University of Botswana/University of Tromso Collaborative Programme for San/Basarwa Research and Capacity Building, under the auspices of which a number of research initiatives on Khoe-San have been undertaken, such as journal articles, dictionaries and student exchange arrangements. The Collaborative Programme funded the eventual publication of *The Khoe and San: an annotated bibliography*, the first volume of which was published in 2002 and the second in 2003.

What are Khoe-San Languages and Where are They Spoken?

Indexers working with publications dealing with Khoe-San languages are faced with several problems relating to both the choice of indexing terms and ways of expressing them using computers. Some background regarding the nature of these languages may throw light on the difficulties involved. Firstly, they are totally unrelated to the Bantu family of languages and are characterised by the use of unique sounds known as ‘clicks’. Where Bantu languages contain clicks it can usually be proved that these have been adopted as a result of contact with speakers of Khoe-San languages. The complexity of the situation regarding these languages is reflected by the following quotation from a document entitled *The Penduka Declaration on the Standardization of Ju and Khoe Languages*, which reads as follows:

In the 1930s European researchers made the mistake of thinking that all click languages came from one source. Previous and subsequent research shows there are at least four entirely separate language families. These are the Ju, Khoe, !Ui and Taa language families. Each language family has different and unrelated grammar, word order and vocabulary. There are various San peoples who speak Khoe languages, and there are non-San people who speak Khoe languages including the Nama and the Damara (Penduka Declaration 2001:1).

It is significant that the delegates at the Penduka Workshop held in Namibia in 2001 were themselves speakers of such languages and were from South Africa, Botswana and Namibia. Between them, they represented eight different language groups. The decision to use the term Khoe-San in this chapter is based on a request made by Joram|Useb, the representative of the Working Group of Indigenous Minorities in Southern Africa (WIMSA) at a subsequent conference, in which he suggested that the word previously spelt ‘Khoesan’ should preferably be hyphenated and ‘San’ spelt with a capital S (Nigel Crawhall, personal communication). An indexer faced with a publication relating to or in a Khoe-San language may find it difficult to know which language is being referred to, as there has in the past been great confusion in the nomenclature of these languages. In fact, the author of the chapter
entitled ‘Khoisan languages’ in the book *Languages in Botswana: language ecology in Southern Africa* comments that ‘[t]he names and spellings of different Khoisan Language names reveal the greatest terminological confusion we have encountered in any scholarly context’ (Andersson & Janson 1997:112).

A chapter by Yvonne Treis entitled ‘Names of Khoisan languages and their variants’, which appears in volume 15 of *Research in Khoisan studies*, deals in great detail with this confusing situation and lists eight reasons why the names linguists, anthropologists, geographers and administrative officers have used to designate a particular group bear no resemblance to what they call themselves (Treis 1998:463). Clearly, if linguists trained in language identification and designation have faced so many difficulties in providing correct and acceptable names for the languages dealt with in this chapter, it is going to be even more problematic for the indexer to do so. To add to the complexities surrounding indexing Khoe-San languages is the fact that they are spoken in several different countries and do not share a common orthography. In some cases the click sounds are represented by the signs employed in the International Phonetic Alphabet while in the case of the Naro language spoken in Botswana, the decision taken has been to make use of certain letters from the Roman alphabet, as is done with the clicks used in Xhosa and Zulu where unused letters, q, c and x represent clicks. Sound reasons have been provided for these decisions but the result is a lack of uniformity and the possibility that related languages may have different orthographies.

**Choice of Indexing Terms for Khoe-San Languages and Use of Computers to Represent Click Sounds**

In order to provide indexing terms or subject keywords for the documents abstracted in *The Khoe and San: an annotated bibliography* it was found necessary to compile a unique thesaurus of terms not available in any standard list of subject headings. Though based upon the Organization for Economic Co-operation and Development (OECD) *Macrothesaurus for information processing in the field of ecology and social development*, it also contains the terms chosen for the languages referred to in this chapter. Information from one of the appendices from the Penduka Workshop follows, listing the currently accepted names of the various language families and giving an indication of how the signs can be typed using a computer.

**Style and Typing Guide for Khoe, Ju, !Ui and Taa Languages: Names of Peoples and Languages**

<table>
<thead>
<tr>
<th>Ju Language Family</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>!Xun (used to be !Xu): the language and the people</td>
<td></td>
</tr>
<tr>
<td>Ju'hoansi: the language and the people</td>
<td></td>
</tr>
<tr>
<td>Ju'hoan: use only as an adjective</td>
<td></td>
</tr>
<tr>
<td>!Kung: the language and the people</td>
<td></td>
</tr>
</tbody>
</table>
Khoe Language Family
Khoe khoegowab: language of the Hai||om, Nama and Damara peoples
Khwedam: language of the Khwe people
Khwe: the people (used to be Kxoe)
||Anikhwe: part of the Khwe peoples, mostly in Botswana
Naro: the language and the people
Gji or Cgui: the language and the people
G||ana or Xgana: the language and the people

Taa Language Family
!Xoo or !Xoon: the language and the people

!Ui Language Family
N|u: the language of the southern Kalahari
N||n-e: speakers of N|u
±Homaní or ±Khomani: people who used to speak N|u and |'Auo
|'Auo: extinct language
|'Auni: speakers of |'Auo
|Xam: extinct language. The San Cultural Centre is called !Khwa ttu. This is |Xam for 'water pan'.
||Xegwi: extinct language

How to type special letters: Pull down the Insert menu, choose Symbol, go to Normal, and select the appropriate symbol. | and || are now on most keyboards, usually in upper case only.

Ordering of Signs and Their Relation to Alphabetisation of Terms
For the compilation of the Subject Index of the bibliography, a specific ordering of clicks was employed as follows:

Note the use of | and || in place of / and // which were employed when the thesaurus was devised and which appear in the current Index of the bibliography. A computer does not recognise International Phonetic Alphabet signs and arranges terms containing them as if the first recognisable letter was the beginning of the word. As a result, to avoid this it was decided to list all Khoe-San languages names beginning with click sounds at the beginning of the Subject Index and then to follow the normal alphabetical arrangement of terms. Within each click sequence, the terms were arranged by the first conventional letter following the click. For example:
In the Author Index the names of authors whose names began with a click sound were placed first and follow the same arrangement. For example:

|Garoebo, I. F. H.  
|Useb, Joram=Oma, Kxao Moses.

Within the text of an abstract, the spelling employed by the author was used, even if it differed from the one chosen for the keywords and subsequent use as an indexing term. Thus the author might spell the language ‘!Xu’ and that term would appear in the abstract, but would be shown as !Xun in the subject keyword list and Index.

As many of the Khoe-San languages have not yet been written down or provided with an orthography, it is likely that there will be changes in the list of languages in the future because it is the communities themselves who are now involved with capturing the sounds of their own languages and with deciding how they should be written. A few brief details about current oral history projects may help to emphasise the fact that although several San languages are actually in danger of dying out, others are being revitalised through dedicated efforts of educated, literate speakers.

The Preservation of Oral History and Folklore in Written Form

The Early History

The Jagger Library in the University of Cape Town contains a unique archive of written records and translations in the language of the !Xam Bushmen. This priceless heritage was made possible by the dedicated work of the German philologist and librarian Wilhelm H. I. Bleek, his sister-in-law Lucy Lloyd and a band of !Xam speakers who were released from prison to assist them in learning their language. Bleek died at 48 years of age but his younger daughter Dorothea continued the work of her father and aunt and became an authority on the languages of the various San groups as well as editing much of the unpublished folklore that had been collected in the nineteenth century. One of her major achievements was the compilation of a Bushman dictionary which her father began in the 1870s. It was Bleek who first devised a method of writing the five clicks he had observed in the !Xam language in addition to providing signs to indicate nasalisation of certain sounds, stops, tones and various other unique aspects of a San language which have also proved problematic to
modern orthographers. It is significant that the words of the San informants //Kabbo, Han=kasso and Dia!wain have inspired several books of poetry based on the translations into English by Bleek and Lloyd, although the original translations are literal and difficult to unravel (Markowitz 1956; Watson 1991). It is perhaps significant that both Bleek and his daughter Dorothea used the word ‘literature’ in describing the folklore, natural history and beliefs which they collected, surely an indication of their respect for the people whose heritage it was.

The folklore has thrown light on the mythological aspects of San rock art and also shown the existence of a similar belief system among people widely separated by time and place. Modern ethnographic research has revealed an affinity between folktales of the modern San of the Kalahari and those of the now extinct /Xam people of the Cape. The Bleek and Lloyd collection continues to be of great value to modern researchers.

Some Recent Projects in the Collection of Oral Data

During the early 1990s, when the Ju/'hoansi people of the Nyae Nyae area of Namibia set up the Village Schools Project, a unique method was devised by means of which children were able to learn to read their own language when they entered the schools established in the seven villages. Young Ju/'oan trainee teachers went round the communities with tape recorders to interview the elders and tape the folktales they remembered. These were then used to produce beautifully illustrated reading books for the children.

Currently several communities in Namibia are in the process of collecting oral data from the elders who can recall the past way of life and the stories told to them by their parents and grandparents. This data will form an invaluable source of information for the younger generation and will enable them to develop a pride in their own heritage. In Botswana two important initiatives are the Naro Language Project and the Khwe Oral History/Testimony Programme. The Naro language is spoken by many people in Western Botswana but had not previously been written down until a project was begun under the auspices of the Kuru Development Trust to provide an orthography and translate the Bible into Naro. There are now a number of trained Naro speakers working with the missionary couple who have led the Project for some years. Several books of the Old and New Testament have been published in Naro and a monthly newsletter is provided so that Naro who are already literate in either English or Setswana can learn to read and write in their own language. As for the Khwe Oral History/Testimony Programme mentioned above, it began as an initiative of two young speakers of the //Anikhwe language, who in 1996 and 1997 began to collect information from older people in the Okavango Panhandle in northwestern Botswana. The interviews recorded on tape were translated into English and Setswana but include names of places and people in either Khwedam or //Anikhwedam using an orthography developed by researchers from the University of Cologne (VanderPost 2003:9).

The use of modern technology has made it possible to record information orally so that future researchers of the languages will have information not available in earlier days. Speakers of the languages will then have access to the folklore of their people which in future may also be transcribed into their written languages.
Conclusion

Reading vast amounts of material while preparing the Khoe and San bibliography proved both challenging and rewarding. The indexing of these Khoe-San languages presents unusual and complex problems, which the author has attempted to delineate in this chapter.

BIBLIOGRAPHY


VanderPost, C. *Community natural resources of Bugakhwe and ||Anikhwe in the Okavango Panhandle in Botswana.* Shakawe: Teemacane Trust.


A Case Study on the Services to Postgraduate Students at the University of South Africa (Unisa)

Nico Ferreira

Abstract

The services of the Unisa Law Library are analysed in order to provide the reader with information on methods of legal information retrieval that can be generally applied.

Introduction

The purpose of this contribution is to provide an insight into the retrieval of legal information by briefly examining different legal bibliographies as a case study illustrating the variety of services delivered to postgraduate students at the Unisa Library, Pretoria.

Context

The author’s perspective and experience as the Law Librarian and the services offered by the Unisa Law Library form the basis of this study.

As Unisa is a distance teaching institution, the library is obliged to cater for on-campus clients, as well as those living elsewhere, both nationally and abroad. These off-campus clients may contact the library through the postal services, e-mail, faxes or telephonically.

The clients of the library can be categorised as follows:

- Undergraduates: approximately 5,000 registered law students
- Postgraduates: approximately 400 registered legal researchers on Masters and PhD levels
- Prospective postgraduates: students who have yet to finalise their registrations but who are eager to start doing research on a specific legal topic
- Unisa staff: approximately 200 law lecturers
- Postgraduate students and staff from other tertiary institutions
- Members of the SA legal fraternity
- Any community member with a legal information query or a legal research need

The Unisa Law Library is centralised on the main campus as a special collection within the Main Library. At the time of writing, the Unisa Library Service was still in the process of merging with VISTA and Technikon RSA (TSA). The contribution will therefore be based on current services and processes.
Certain factors must be considered:

- South African resources versus foreign resources. The new South African Constitution compels legal practitioners to take note of foreign legal resources from foreign legal systems.

- Access versus ownership. Based on the available information resources budget, decisions will have to be made whether a library will provide access to resources or whether it will buy the relevant resources.

- Hard copy versus electronic source. Collection developers will have to take this factor into consideration when deciding on future developments. Various options need to be examined: Will a collection become increasingly electronic-based? One should take into consideration that electronic resources are not automatically cheaper. Will the developer opt for an interim period where both hard copies as well as the electronic resources are purchased for the collection? Alternatively, will the developer retain the traditional paper resources?

- Full-text versus bibliographic sources. It seems some researchers still believe that all material is available full-text on the Internet, ready to be printed freely at the touch of a button. They are also ignorant of the fact that certain databases, for example the Index to legal bibliographies, are bibliographic sources that (only) function as indicators of possible resources on a particular topic.

The focus of the chapter will not be on the theoretical aspects of bibliographic resources or bibliographic services. However, one should note that the practice of any library and information service should be based on a solid theoretical foundation.

Some ethical considerations are important to the delivery of information services:

- Law librarians do not provide legal advice, but do provide information resources which may contain the solution to a legal problem.

- According to the Attorneys Act, only qualified lawyers may provide a legal service.

- Therefore law librarians do not interpret Acts or law reports;

- Client confidentiality is very important.

- Keep in mind the legal maxim that states: ‘A person who acts as his own lawyer has a fool for a client.’

### Different Types of Legal Bibliographies

The following types of bibliographies are available:

- In book form. For example *A bibliography of South African criminal law*, by A Rabie.

- At the end of chapters in books. For example *Annual survey of South African law*, in which each chapter discusses a different area of development in South African law development for a specific year, with a bibliography of the most important books and journal articles published in that year.

- As journal articles. For example in the 1990 *Journal for Contemporary Roman Dutch Law* there is an exploratory bibliographic article on South African law journals.
• As a comment on the current situation. For example on marital rape in South Africa, as published in the South African Journal on Human Rights, 1992.
• As a historical perspective. For example literature on the police in South Africa, as published in Acta Juridica, 1989.
• As a guide to legislation on a certain subject. For example, a bibliographic guide to South African insurance legislation, in Modern Businessman, 1988.
• As journal special issues. For example ‘Elder law: a special issue’, in University of Kansa Law Review, 1996.
• As a legal overview and research bibliography. For example ‘Understanding patents: a legal overview and research bibliography’, in Legal Reference Services Quarterly, 2001.
• As a research guide. For example a research guide to medical malpractice and the law, in Legal Reference Service Quarterly, 1997. A research guide can also be called a pathfinder and it looks like an annotated bibliography.
• In addition, the well-known bibliographies.

Several of the bibliographies were published some time ago – but legal researchers must look at both old and new resources, in order to ascertain how the law has developed.

Bibliographic Services

The mission of the Library is as follows:

The Library Service and the Unisa Community are partners in the pursuit of academic excellence. We actively support the teaching, research and community service programmes of the University by providing client-orientated, quality library and information services and training, using appropriate means. The skills, knowledge and helpfulness of the staff, the advanced information technology, and the excellent collection contribute towards maintaining outstanding academic information services.

In the pursuit of efficient subject retrieval, the following sources and bibliographic resources have been made available.

Index to SA Legal Periodicals

This is compiled on a contractual agreement with the South African National Library by the Unisa law librarians. The records are delivered to the SA National Library and ultimately
made available on the MAGNET database by SABINET as part of the Index to South African Periodicals (ISAP).

The following is an example from ISAP as available on SABINET:

DU PLESSIS, J.
Psychiatric injury sustained by secondary victim due to watching primary victim being struck by a truck
Discusses the outcome of *Road Accident Fund v Sauls* 2002(2) SA 55(SCA). Looks at the relationship between the primary and secondary victims.
CASE DISCUSSIONS, LAW OF DELICT, EMOTIONAL SHOCK, CAUSATION, NEGLIGENCE, POST-TRAUMATIC STRESS, PSYCHIATRIC INJURIES, ROAD ACCIDENT FUND v SAULS

In the past it was possible to find this record by doing either an author search, article title search, journal title search, or by means of a subject search. Now it is also possible to find the article by doing an abstract search or a subject search when information pertaining to a specific case report is available (in this case *Road Accident Fund v Sauls*). This filled a need for discussion on specific court cases. The same can be said about finding information on specific South African Acts and legislation. By including additional information in both the abstract and the subject fields of the record, the relevant information will be easily retrieved.

**South African Legal Abbreviations**

It is well known that abbreviations abound in the field of law. It may even happen that a legal book or journal article contains abbreviations without the necessary key to these abbreviations.

A citation such as TRAN CBL is not ‘wrong’ or should not be regarded by librarians as ‘containing insufficient information’. And naturally no librarian can be expected to know the meaning of all abbreviations – but any law librarian should know where to find the key.

The number of queries on legal abbreviations received at the Unisa law library indicated that a South African publication on abbreviations was sorely needed. This led to the publication of the following bibliographic resource:

Ferreira, Nico M & Breckon, Karen E
*South African legal abbreviations*
ISBN 1575885263

**Thesaurus of South African Legal Terms**

Compiled in cooperation with other law librarians in South Africa, this thesaurus indicates that indexing is a subjective exercise and that a need exists for a publication to assist with finding the correct search terms when searching for legal journal articles in ISAP (on SABINET).
The following is a page from the draft thesaurus:

<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Judiciary</td>
<td>use Unified judiciary</td>
</tr>
<tr>
<td>single</td>
<td>also Jury system</td>
</tr>
<tr>
<td>Juries</td>
<td>more specific Jurisdiction of the courts</td>
</tr>
<tr>
<td>Jurisdiction</td>
<td>more specific Territorial jurisdiction</td>
</tr>
<tr>
<td>Jury system</td>
<td>also Juries</td>
</tr>
<tr>
<td>Justice, administration</td>
<td>use Administration of justice</td>
</tr>
<tr>
<td>Justus error</td>
<td>also Error in law</td>
</tr>
<tr>
<td>Lustus error</td>
<td>also Lustus error</td>
</tr>
<tr>
<td>Kennisleer</td>
<td>see Doctrine of notice</td>
</tr>
<tr>
<td>Labour law (very broad)</td>
<td>also Employment law (very broad)</td>
</tr>
<tr>
<td>Labour unions</td>
<td>also Trade unions</td>
</tr>
</tbody>
</table>

Note the inclusion of several languages and the inclusion of different references, such as also, use, more specific and see – all to help the researcher find the correct term in order to locate all relevant journal articles.

The examples above illustrate Unisa Law Library staff’s dedication to making information more readily accessible.

**Subject Librarians**

At the Unisa Library a subject librarian system is in place whereby at least one subject librarian is available for each teaching department or group of departments. There are two full-time subject librarians for the Law Library, as well as three assistants who staff the information desk.

**Services to Clients**

**Compiling Reading Lists**

A reading list may be needed for several reasons:

- for new Masters and PhD students at the start of their research
- for promoters who are in communication with the researchers
- for researchers working on a new book or journal article and who need the newest information on the specific subject
- for lecturers compiling new study guides or updating them

The starting point for compiling a reading list is the library catalogue, which can be found at http://www.unisa.ac.za. The complete library collection can be found here. To find references to legal journals, use (as only one example) the *Index to legal journals and books*, published by WH Wilson, and for foreign journals, the index to *Foreign legal*
The library subscribes to an extensive collection of databases which can be browsed electronically or on hard copy.

**Answering Queries**

No librarian could possibly have all the answers, but should be able to find sources that provide answers to a question or at least know in which direction to steer a client. Being able to answer queries is a combination of experience, knowledge about the subject and which bibliographic source to use. It is often necessary to remind the client that books do contain indexes and that the index itself is a way to find specific information.

**Finding Bibliographic Information**

This can be a very testing exercise, especially when a postgraduate student or researcher is completing a thesis and is trying to find elusive bibliographic information for the footnotes or the bibliography.

**Training**

The training of clients in the use of bibliographic information resources is a major component of any subject librarian’s daily routine. This training may be on an informal one-on-one basis or take the form of more formal training sessions in a modern electronic learning centre.

**Collection Development**

Unisa library is fortunate that the subsidy it receives from the national government is based on the total number of registered students. At the time of writing, there are about 125 000 students, with the result that the budget available for collection development is quite substantial. However, it is impossible for one law library to collect every single law publication. This activity is a very important task in the daily routine of any subject librarian. We often compare reading lists compiled from foreign legal resources with the library collection to see which resources are not in our own stock. The importance of the role of legal bibliographies in law collection development can never be overemphasised.

**Conclusion**

The following quote by SB Pagel (1989:9) refers to legal bibliographies and law librarians (although it rings true for all subjects and all librarians):

> When all is said and done, when the state of legal bibliography past, present, and future has been explored, what role should law librarians play in producing bibliographies? They have a duty to become involved with the needs of their users to
a major degree through compilation and publication of these tools. Legal information professionals have special skills, and legal researchers have special needs, which require that librarians participate in creating guides and bibliographies. Members of the profession have a duty to use their skills to the benefit of their patrons, their institutions, and themselves. The legal bibliography is alive and well – it remains a vibrant, healthy genre which will continue to grow and evolve, and sometimes even appear in a different format, so long as there are librarians interested in serving the research needs of the legal community.

BIBLIOGRAPHY

Abstract

After indicating the importance of indexes for children's books, the authors focus on South African publishers of children's literature and their attitude towards the inclusion of indexes. They summarise their findings and conclude that although the majority had a positive attitude towards indexes, financial and other constraints often preclude their inclusion.

Introduction

In the school environment much attention has been paid lately to computer, and especially Internet-based, information searches. It is often forgotten that a large and very important body of information is still available in printed format. Certain means are necessary to guide the user in finding this information and using it properly. In this case it is the young user still finding his or her place in a world where everything revolves around the timely location of relevant information. This includes a focus on the skills needed to be able to digest the found information, as well as the application of the processed information to fulfil specific needs. The two most obvious key means are the library catalogue, specifically the subject catalogue, and book indexes. Book indexes are supposed to serve as a key to the exact place where detailed information on a specific subject in a book (printed information source) can be found. A book index works in a way similar to the subject catalogue of a library, indicating where information on a specific subject can be found in the library (Gordon 1976:294). Yet the crucial role that indexes in information books for children can play is often underestimated and many such books are published without an index. It is often said that there is no need for indexes in simpler books for children.

The Role of Indexes in Books for Children and Young People

The most successful person, according to Marland (1992:12), is someone who has the ability to turn a need into a question. To answer the question, such a person will be able to search for relevant information. The search process includes the selecting, organising, evaluating and presenting of information as an answer to the need-turned-question. To be able to do this, such a person needs to possess certain basic information skills.

Such skills are essential during the first three to four years of schooling. In this period children become especially familiar with the skills of judgment and differentiation. Children are immensely curious about everything around them, and during this period their
experience of the world around them stimulates the need to know more. All of this comes
down to the analysing, organising and reorganising of information.

These skills form the cornerstone of outcomes-based education (OBE). Learners are
expected to be able to do autonomous as well as group research. They must be able to
find information, and process and repackage it. Learners must not only be taught how
to read; they must also be taught to read with a view to becoming independent learners.
As independent learners they will for the rest of their lives be able to select, analyse and
synthesize information in an independent manner (Marland 1978:68). Acquiring information
skills therefore plays an important role within the OBE curriculum. A survey undertaken in
June 2004 among media teachers in Pretoria (Van der Walt 2004) indicated that all media
teachers felt book indexes play an important role in the acquisition of information skills.
They also indicated that book indexes are employed to show learners how to identify key
terms when searching for information and from there, how to locate relevant information.
The index remains a basic resource for teaching learners how to do simple research. It
encourages autonomous learning as well as an orderly and systematic approach to learning
and information retrieval.

The above survey strongly indicates that media teachers understand the value of the index,
and that it is taught and implemented as an information skill. It was specifically mentioned
as one of the basic information skills required. All the primary and secondary school media
teachers participating in the survey also indicated that learners were not only aware of what
an index is, but also understood that an index would help them find information more easily
and more quickly. Most of the children were also aware of the difference between an index
and a table of contents. The validity of the teachers’ assumptions has not been scientifically
tested, and one teacher stated: ‘[R]egular library users know what an index is and how to
use it, others simply want a book on a specific topic and must be shown how to get their
information from different sources. They actually use keywords to search electronically,
but then the system does all the work.’

Characteristics and Standards for Indexes for Children

Because indexes are so crucial for children, a set of basic standards with which a good index
should comply, is needed. According to Marland (1978:68) an index has three functions:
to indicate the scope, the level and the detail of the book. In other words, it indicates in
the first place the appropriateness of the specific source to the purpose for which the user
needs it. Secondly, it allows for a ‘disorganising’ of the author’s particular organising of the
information. This allows users to create their own reorganising of the relevant information.
In the third place, it serves as a means of retrieval. These functions, though, can only
be used to their full potential if the index has been properly constructed and complies
with particular characteristics. Indexes in information books for children are constructed
and offered in different ways. This makes its use difficult for learners and is sometimes
found too confusing to use. However, we also need to avoid becoming prescriptive because
at present there is no consensus among indexers, authors or media teachers on specific
issues.
An index in a children’s book, as with any other index, should be able to stand as its own entity and not simply appear as an afterthought at the end of the book. When constructing an index for a children’s book, an indexer must constantly keep in mind the child as the user. Some of the questions to consider are what knowledge the expected user will have of the book, which indexing terms should be familiar to the user and how the user will search for information. An index for a children’s book should not be a simplified version of an index for grown-ups. The introductory notes and information given must be informal and user-friendly, and the terminology used needs to be suitable. Appropriate headings must stand out in prominent print and the typography must not be smaller than the main text, so that children do not see the headings as less important than the main text.

One of the issues with indexing for children about which there is no consensus is which method of arrangement is better: the word-by-word or the letter-by-letter method. Most media teachers approached for the purpose of this study felt the word-for-word method was best. But others preferred the letter-by-letter method since children tend to search strictly according to the alphabet and may find it confusing to search according to words. However supporters of the word-by-word method felt this method made it easier for learners because ‘the entire word is mentioned’! Yet what is probably more important than choosing between the word-by-word and letter-by-letter methods is to be consistent. Sometimes even older children give up if there is no clarity and consistency in the presentation of subjects in an index.

Concerning the format of the entries, the indexer needs to make a calculated guess about which method most users will probably use. For example:

| seals, hunting of |
| or |
| seals |
| hunting of |
| or |
| hunting |
| of seals |

Blood River, Battle of

or

Battle of Blood River

Local media teachers consulted expressed no definite preference for one or the other of the two formats.

A constantly debated issue about indexes for children’s books concerns page references. For example: ‘4-6’ or ‘4,5,6’? Media teachers interviewed had no specific preference (Van der Walt 2004). However Mathews and Bakewell (1997:193) mention that an indication from one particular page to another particular page (e.g. 4-6) can confuse a younger child, who may even ask ‘What does 4 minus 6 mean?’ So it may be better to list all the pages: 4, 5, 6. But of course a page indication like 4-6 clearly indicates uninterrupted coverage of the
specific subject from page 4 to page 6 – which means there will be more information on the subject on these pages than there would be in ‘passing references’, that is page references where the subject may only be referred to in passing on the page mentioned. The page reference ‘4, 5, 6’ therefore does not distinguish it from ‘passing references’. It is agreed that ‘passing references’ must be avoided, and even more so here than in books for adults. The general feeling is that passing references in children’s books may do more harm than good. It is, or could be, already problematic for children to find the right indexing term. From there they need to search for the relevant information on the pages mentioned, a process that can go slowly. After a search through a long list of references for a subject, a child may find some pages do not lead to any useful information. This will only discourage any future use of the index.

In general, there should not be too many page references for single entries in indexes for children. Media teachers who participated in the survey supported this view. Indexes aimed at older children can be more comprehensive, but references to subjects only mentioned in passing should still be avoided (Van der Walt 2004). It goes without saying that abbreviations such as ‘4ff’ should not be used.

One way of avoiding long strings of page references under a specific term is to use subheadings. For example:

<table>
<thead>
<tr>
<th>Mandela, Nelson</th>
</tr>
</thead>
<tbody>
<tr>
<td>birthplace</td>
</tr>
<tr>
<td>president</td>
</tr>
<tr>
<td>prisoner on Robben Island</td>
</tr>
</tbody>
</table>

Local media teachers think subheadings simplify the research process and help learners find out where to access specific information immediately (Van der Walt 2004). Subheadings have one major drawback that can also lead to confusion: they disrupt the general alphabetical order of terms with a new alphabetical order under a main heading. The indexer should weigh up the benefits and drawbacks. The use of too many and unnecessary subheadings can be confusing, but then too many long strings of page references under one heading may be equally confusing and discouraging.

There is as little consensus about cross-referencing in indexes for children. According to a British study (Mathews & Bakewell 1997:193), most children usually find cross-references difficult to understand. The opinions of local media teachers were divided on the use of cross-references, especially regarding works for junior learners. It was felt cross-references must be made very clear, if they are used. Perhaps a better solution would be to use multiple entries. Children do not yet have enough linguistic knowledge to be able to search under synonyms if they find that the term they originally searched under is not in the index.

To make it easier to locate specific indexing terms, it is better to use a space to distinguish each first indexing term starting with a new letter of the alphabet from the terms starting with the previous letter. Another possible way to distinguish between indexing terms is to clearly indicate each alphabet letter (lower and upper case) at the beginning of the terms starting with the specific letter, preferably in bold. Even though some of the local librarians
consider the open spaces more important than the print of the letter itself, most others think both methods should be used simultaneously (Van der Walt 2004).

The general view in the literature on indexing illustrations is that it is important, but should be distinguished clearly from text references. This can be done using typography – for example printing in bold or italics (Gordon 1976:298). It is interesting to note that local media teachers do not have strong views on the matter. Most indicated that while it can be done, they do not think it crucial. Responses that it should only be done if the illustrations are important (yet without specifying what is and what is not important about an illustration), or that it is only useful to index illustrations which users will want to search for, are not really meaningful (Van der Walt 2004). Obviously it is unnecessary to index illustrations that appear on the same page as the text covering the same subject.

The Table of Contents as Distinct from the Index

A glance through a book's table of contents should give one an idea of the contents and main themes. The longer and more detailed a table of contents, the less helpful to the reader. It is the purpose of the index to represent the book in detail. This representation is not in the order that it appears in the text, but in an alphabetical order that makes it easier to locate specific information. According to Gordon (1976:294) many publishers feel a detailed table of contents offers sufficient search possibilities for children and an index is therefore unnecessary. But a table of contents is arranged thematically and arbitrarily – so clearly this is not the case. For example, a child searching for information on polar bears may think of searching under a term such as ‘Mammals’ in the table of contents. But there will be problems if the table of contents happens to be arranged geographically, since this child is not likely to think of searching under ‘North Pole’. An index should not offer any problems in a similar search process.

The local media teachers agreed that the table of contents does not have enough scope for information searches. The two main reasons why all media teachers find the inclusion of indexes in children's books necessary is that a table of contents is not alphabetical and does not represent all the information contained in the source (Van der Walt 2004).

Who Should Construct the Index?

It is clear from the literature on indexing for children that it is a subject of ongoing discussion. In practice many authors construct their own indexes, although it is generally felt the task should be entrusted to professional indexers.

However there are definite benefits to the author's taking responsibility for the index, mainly because the author is familiar with the content of the book, as well as with the subject material in general. The author will also be aware of the needs of the book's particular target group. Usually authors of information books for children are well aware how having an index will improve the book's marketability. A proper index is conducive to good sales (Mulvany 1994:28).

But it is also true that indexing is an art and a skill, and that generally authors are not properly conversant with the indexing process. An author who has worked long and
intensely to finish a book (writing and rewriting, editing and proofreading) is often left exhausted at the end, with little energy to compile a proper index. The result is a substandard product. Mulvany (1994:28) emphasises how the construction or ‘writing’ of an index, as a writing style, differs in a marked way from a creative or ‘expository’ writing style. An author therefore needs to adapt to the required style and an author who is new to indexing obviously needs to get to know the main characteristics of an index and the process of indexing. Seal (1984:113) indicates that 60 per cent of authors write no more than one book – so for these authors there is little point in making the effort to learn the skill of indexing. Moreover, there is no guarantee that an author who knows the language of his or her subject well will find this language suitable or usable for an index. The author may have used specific terms and concepts in the text when writing about the subject, while other terms and concepts may offer better access to the specific subject material. If an author is also responsible for the index it is important to dissociate himself or herself from the book. This is especially difficult if this author has been working on and ‘living with’ that book for some time. However, in spite of all the obvious problems associated with indexes done by authors, Mulvany (1994:28) still feels authors who do wish to do the indexing themselves should be encouraged to do so, provided they are aware of the challenges.

The most important benefit of indexing done by professional indexers is that they have the necessary experience. This enables them to plan their time so that they finish the index in time. They tend to be more objective about the book and come to the text with a fresh outlook on the subject material. Indexers should therefore be able to create an index that is a ‘special blending of the language of the text with the language of the audience’. This, according to Mulvany (1994:28), is one of the most important characteristics of a good index.

Irrespective of who is responsible for the index, it should be compiled with great care. Jean Kirk (1988:78) writes the following in an article on users’ approaches to indexes: ‘It becomes clear that the user, and the indexer, work on preconceptions and look under the heading that seems logical to search or index by the defined, accepted rules, ... [T]hese preconceptions develop from experience and training so are unavoidable. To what extent, then, is the indexer to take into account the likely approach of the user, in trying to make the contents of books ... retrievable by listing names, places and subjects in a predictable order, with an indication of their physical position within the source? Is it possible for the user to understand the indexer’s approach?’

The indexer of children’s books has no choice. He or she must take into consideration the possible approach of the user. Child users cannot be expected to be able to consider the indexer’s approach when they search for entries in the index.

If an indexer is responsible for the index and not the author, then cooperation with the author is still essential. South African authors are often responsible for compiling indexes (Breytenbach 2004) or sometimes responsible for finding an indexer to do the compilation. The quality of the index is a reflection on the author and publisher. It is therefore imperative to find the right person – someone with whom cooperation and communication is possible and preferably someone who has previous experience of the particular type of book. Of course the author should be available for consultation and can serve as a valuable technical source for the indexer. However, the author should not get too involved. According to
Mulvany (1994:29), authors often give indexers long lists of terms that they want included in the index – but this is often unnecessary and counterproductive. It is more important to discuss the specific terminology and for the author to point out any specific points that need to be accentuated. Mulvany (1994:29) also mentions that authors should let publishers know as early as possible exactly how involved they will be in the indexing process. One activity for which the author’s involvement is essential is the ‘review’ of the index; this way the author can determine whether certain subject material is handled as planned or represented in the text. The author should be able to assess whether the index succeeds in giving access to the content of the book. A random piece of text can be selected as a test to visualise how readers may search for the information contained in it. The aim is to determine which indexing terms they may use. Then consult the index and see whether these terms have been included. The index needs to be checked or reviewed as a complete unit, for example to see whether indexing terms are used in a consistent manner, that cross-references are logical and necessary, et cetera.

This review process comes with its own problems, especially since indexing is not a linear process, but rather a developing or evolving one. The index changes as the indexer works on it and, when an author wants to check on an interim basis whether it complies with his or her requirements, this may interfere with the indexer’s thinking pattern unnecessarily.

Current Practice in South Africa

A survey among South African publishers indicates that most are aware of the importance of indexes in children’s books, although some do have reservations about just how important. Miemie du Plessis (2004) of Lapa Publishers stresses the importance of indexing when she points out that it is the easiest way to find information and that already at a young age children should know the index is the first point of search. She frankly admits that it should be publishers’ policy to include indexes in all the information books they publish (local publications as well as translations of overseas work), but that this does not always happen in practice. Ney-Her (2004) of Awareness Publishing feels children’s book publishers have a duty to make sure indexes are included in their publications, for the same reason as given by Du Plessis that children can learn from a young age to use an index. Awareness Publishers always include indexes in their information books for children (Ney-Her 2004). Oxford University Press publish few information books for children, but when they do an index is included if appropriate (Spoor 2004). They are very much aware of the value of an index ‘because of its value as a vital tool for developing information retrieval skills, not just for school work but for life’ (Spoor 2004). Similar to them are Maskew Miller Longman, for whom the inclusion of an index is determined by the nature of the book, the subject or learning area of the book and the grade it is aimed at (Van Zyl 2004). The nature of the book is the determining factor for the publisher and in their case it is always books intended for South African schools. The feeling is it is less useful to children under Grade 6 level. ‘It should, however, not be intimidating at that level and children should be taught how to use it’ (Van Zyl 2004). Macmillan Publishers always include indexes irrespective of the feeling that children do not really use them (Weber 2004). Linda Weber (2004) of Macmillan Publishers believes indexes are underused because learners do not get
proper training on their use and value. ‘Given the low level of literacy generally and the importance of developing information literacy in particular, I think it’s crucial that learners be exposed to and even drilled in the use of all tools that facilitate their ability to retrieve and access information.’ This remark from a publisher responsible for many information books indicates that the rose-tinted picture sketched by local media teachers is definitely not applicable in all instances.

The only exception is Human and Rousseau Publishers. These publishers do not publish many information books. Their children’s book editor believes an index is not important because the text for children’s books is supposed to be a lot more ordered and systematised than for adults (Lategan 2004). If a children’s book does have an index the feeling is it should be simple but broad enough and easy for children to use. It also depends on the book’s content (Lategan 2004). Yet in practice, this particular publisher is not consistent in the inclusion of indexes and the editor does not see its value. Recently Human and Rousseau brought out two information books, one a book on South African birds including an index. The second book, on cricket, only has a detailed table of contents, which according to the editor has worked out quite well (Lategan 2004). Lategan (2004) clearly states that in her opinion a simple list of terms is more important than an index, and also mentions she prefers an annotated table of contents.

It seems most publishers of information books for children are aware of the importance of a professional indexer having responsibility for the index, but that several concerns impact on its execution. Oxford University Press always use a professional indexer for more complex texts. Generally, however, it is the author, in consultation with the editor, who will construct the index (Spoor 2004). Awareness Publishing will use a professional indexer with pleasure – ‘if you can find one’. In practice, it is often the publisher’s copy editor who does the indexing (Ney-Her 2004). Macmillan Publishers feel the nature of the information books published (mostly primary school textbooks) makes the services of a professional indexer unnecessary. The publisher asks the author to supply a list of the most important terms and concepts along with the manuscript, and this is passed on to the typesetter. ‘The typesetter builds the index using the indexing feature in software like Quark’ (Weber 2004). She still sees the value of a professional indexer because she also indicates that the publisher will most definitely use the services of such a person when it comes to publishing information books at tertiary school level, or books of a highly specialised nature (Weber 2004). Even though Human and Rousseau’s children’s book editor indicates on the one hand that indexes are not really necessary in such books, she does feel on the other hand that professional indexers should be responsible when an index is needed (Lategan 2004). The nature of the book and the index, for Maskew Miller Longman, determine who will construct the index (Van Zyl 2004):

The general rule is that a professional indexer will be asked to do the indexing, especially the more complex indexes. However, it also depends a lot on the subject matter or learning area. For Geography and History books for example, a professional indexer will always be appointed but if it is a very basic index for a language book, the editor might be asked to do it. If it is a very basic one-page index for a children’s book, the editor might be asked to do it. If it is a fairly inexperienced editor, we will
not ask him or her to do the index. In some cases the authors might even supply it themselves.

At Lapa Publishers, the editor, or the author, constructs the indexes – to cut costs (Du Plessis 2004).

When professional indexers are used, the importance of cooperation between indexer and author is stressed. Maskew Miller Longman do the following: ‘[The editor or in-house project manager] briefs the indexer on what to do and what is expected. The indexer is told how many pages the index should make, e.g. 4 pages in the printed book, etc. It is also important that the indexers know exactly who the market is, e.g. whether it is for G6 learners or G10 learners’ (Van Zyl 2004). Weber (2004) of Macmillan mentions that the ‘indexer must work to a brief which takes on board key factors such as the age/grade of the learners, the predominant teaching and learning area of the title, the home or first additional language of the intended audience, etc.’ Awareness Publishing limit cooperation to ‘the normal checking of the other’ (Ney-Her 2004). Human and Rousseau may not have any real experience in this field, but the children and youth book editor feels there must definitely be cooperation. In such a case the publisher would prescribe the depth of the index, for example indicate the purpose of the publication. The depth and aim of the index (or annotated table of contents) will also be determined by the text layout (Lategan 2004). Awareness Publishing and Lapa Publishers feel instructions must be clear, brief and to the point (Du Plessis 2004; Ney-Her 2004).

The different approaches of the various South African publishers to the importance of indexing are also reflected in their views on what knowledge an indexer should possess. As expected, in view of the value they attach to indexes, Maskew Miller Longman attach particular importance to an indexer’s existing knowledge. Van Zyl feels this is especially important for books dealing with subject areas like economics, geography and history, and other technical subject fields. They use professional indexers mainly, who therefore know how to construct an index, and this is the most important thing for the publisher. ‘However, as far as the age group is concerned, they definitely need to know who the book is for, intended market, etc. An index for G6 learners that is too complicated or comprehensive will confuse learners instead of helping them’ (Van Zyl 2004). Lategan (2004) of Human and Rousseau finds good indexers are scarce and if an indexer does not have the necessary knowledge on the specific subject, then he or she will work closely with the author and the editor. It is strange that the editor clearly indicates that knowledge of the specific target group of the book is not necessary, and that the author and publisher will give guidance. Lapa Publishers feel the indexer must definitely be very familiar with the book’s subject and target group (Du Plessis 2004). Ney-Her (2004) of Awareness Publishing and Weber (2004) of Macmillan both feel that this knowledge is not necessary. Weber (2004) does indicate that her publisher may appoint an editor to check the index to make sure that it is relevant and representative of the curriculum. The Oxford University Press editor mentions that a professional indexer must be able to work on any topic, but that the publisher should use a specialist when it comes to more specialised subjects (Spoor 2004). It should be ascertained whether an index is usable by children, according to Weber (2004), in the following sense: ‘[T]he index should reflect subject-specific, content-related information and not arbitrary
references. For example, an index in a book on the history of aviation in South Africa should not include a reference to some public figure who happened to fly in a particular aircraft and who is mentioned only in passing or anecdotally in the text.

There is also no agreement whether there is a difference between indexing for children and indexing for adults. Human and Rousseau and Lapa Publishers are very specific that there is a difference (Du Plessis 2004; Lategan 2004). According to Lategan the difference lies in the simpler approach (fewer entries) of children’s books, and that hit words must be indicated more clearly. Du Plessis refers to the choice of words and the degree of difficulty or depth of the index. This contrasts with the opinions expressed by Awareness Publishing (Ney-Her 2004), Macmillan (Weber 2004), Maskew Miller Longman (Van Zyl 2004) and Oxford University Press (Spoor 2004). Weber (2004) says: ‘[A] ll indexes should be sensible. Books for adults on specialist themes would have more complex, tiered indexes, but that would be dictated by the subject matter of the book, rather than the age of the reader.’ In Spoor’s (2004) opinion information retrieval skills must be built on a sound base, therefore with no different approaches to the construction of indexes for children. But she does add: ‘[A] children’s book may well approach it from a more concrete rather than conceptual stand point – one must address the age and needs of the learner.’ Van Zyl (2004) bases her view that there should not be any differences on the fact that children should be made familiar with the concept of an index gradually: ‘I think the important thing for children is to learn what the purpose of an index is and how to use it.’

Conclusion

It is generally agreed that indexes add value to information books for children, and that it is essential for children to learn how to use indexes. As Marland (1978:69) said, ‘handling an index is a central part of reading for learning’. As with any index in a book for adults, the index in a children’s book serves as a ‘map’ or key to the subject material in the book. It plays a significant role in the acquisition of a body of information skills that each child needs to own. Using an index is not an easy skill to acquire, which makes it so important for indexers to put extra effort into its construction. It is a positive sign that most South African publishers are aware of this. Unfortunately there are factors, mainly financial, prohibiting these positive attitudes from always being applied in practice.

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MUSEUM OBJECTS

Malene Schulze

Abstract

The museum has a unique role as a repository for three-dimensional objects gathered from both natural and human-made environments. The very act of collection removes objects from their context and, although many of them are inherently interesting or aesthetically appealing, it is the close inter-relationship with their environment which increases their usefulness, and their enjoyment by the museum public. Preserving the non-intrinsic information about an object, such as where it comes from, who found or used it, and what it was used for, is the responsibility of the holding institution. For this reason the documentation of museum collections is vital (Stone 1992:213). It is the indexer’s task to unlock this wealth of documented knowledge for potential users.

Introduction

The indexing of museum objects has many similarities to the indexing of written material, but there are many differences as well, and these present some interesting and challenging problems. The main one is that while most indexing tasks start with a block of text, museum cataloguing and indexing starts with a box of objects. These may have words on them but usually the words have to be supplied (Will 1993:157). The best way to explain what is meant by indexing in relation to museum objects is to quote Smither (1990:11) describing documentation processes at the Imperial War Museum in the United Kingdom: ‘[W]e catalogue the collections and then index the catalogues.’

Museum cataloguers have a lot more discretion to determine the form and content of a record than book cataloguers do. All museum cataloguing is original cataloguing and entails considerable research and analysis in order to generate a single record (Stanley 1989:130). Information about what an object is called, what it is for, and when and by whom it was made, has all to come from outside sources – either documentation accompanying the object, separate reference works, or the cataloguer’s own knowledge. The records created for museum objects then require a whole network of links to associated entities such as people, organisations, places, events, cultures, materials, images and documents. These links are not static, because an object’s history is not static. New information may be discovered, but even without this an object will be exhibited, stored, moved, lent, conserved, photographed and studied. All these entities and processes have to be recorded in such a way that they can be found and also used as retrieval keys to the other entities to which they are linked (Will 1997:36).
What are the contents of the museum catalogue record? Notwithstanding the fact that museums are diverse institutions housing objects from various disciplines, the following information groups are always to be found in catalogue records: physical appearance of the object supplemented with non-intrinsic detail such as geographical area where it was collected and many historical associations such as manufacturers, users and dates. Finally, the management of the objects such as acquisition source and locality is also recorded. (See Figure 1 in the addendum to this chapter for a list of catalogue information categories published by ICOM in the Handbook of standards: documenting African collections 1996.)

These days most museums use computers to record the information about their collections and this chapter is written with that approach in mind. However, the principles of information science remain the same for both manual systems and computer applications. Converting manual records to digital format is a time-consuming task which is usually implemented in phases; therefore many museums may for some time live with both systems simultaneously.

Indexing Objects rather than Text

In theory, the process of indexing museum objects should be straightforward: a curator should write a description of the object in whatever terms seem natural and appropriate, and an indexer can then work on this textual description as on any other text, providing standardised access points under controlled terms at a level of specificity appropriate to the collection. Systematic retrieval is thus provided for and when an item has been identified as being of interest, the curator’s description of it is available. In practice, the distinction between description and access points is not so easy to maintain. Will (1993:157) elaborates as follows:

To take an example from the Science Museum, we have an object with the following semi-free-text description:

1986-1502: Experimental bed for continuous weight measurement during psychic experiments, used by Prof. J B Hasted in his research, English, c.1980.

There are several categories of index term by which this object might be sought: what it is, the disciplines or areas of study to which it relates, and where, when and by whom it was built and used. Appropriate indexing terms might be:

Object name index:

- Beds
- Experimental apparatus
- Weighing equipment
- Levitation
- Parapsychology
- Psychic research
- Weight measurement

Subject and discipline index:

- Hasted, Professor J B
- England
- 1980

The distinction between description and access points is not so easy to maintain. Curators commonly do write free-text descriptions of objects, particularly when preparing scholarly or evaluative catalogues, but it is often desirable for them to provide structured descriptions too, with information broken up into fields and groups.
This: (1) allows data to be selected, sorted and presented in different formats; (2) acts as a reminder to the curator of data that ought to be included; and (3) makes it easier to scan a list of records looking for or comparing specific items of information.

Recording of data in a structured form blurs the distinction between description and access points, and there is a temptation to make a single set of data fields perform both functions. They can often do so, and then there may be economies in the amount of data stored. The lack of distinction has, however, led to enormous confusion, with curators complaining that indexers and other information staff were trying to force them to use terms that are anachronistic or that do not reflect scholarly discriminations, while indexers complain that curators are not prepared to accept the standardization of terminology which is needed to make an indexing system reasonably efficient. For most museums, the curator, the cataloguer and the indexer are the same person, who has to reconcile the conflicting points of view.

Data Standards

Much work has been done internationally over the past 20 years to develop agreed structures for museum data and terminology. Data standards not only promote the consistent recording of information but are also fundamental to the efficient retrieval of information online. They promote data sharing, improve the management of content and reduce the redundancy of effort (Cataloguing cultural objects 2004: Introduction).

Working parties of the International Committee for Documentation (CIDOC) of the International Council of Museums (ICOM) have developed the CIDOC guidelines for museum object information: the CIDOC information categories. These guidelines include information categories for collections management as well as object description. They make recommendations on syntax or format, and controlled vocabularies. The CIDOC guidelines are recommended both as the basis for an international standard and for new national standards, if there are no current standards in a country, and as an intermediary when comparing (mapping between) existing museum information standards (CHIN website 2002).

In the United Kingdom the lead has been taken by the Museum Documentation Association (MDA). The MDA’s work over the last 20 years has made museum staff much more aware of the potential of their collections as a source of information and of the need to organise that information so that it can be retrieved effectively (Will 1993:158).

On the African continent, efforts to standardise museum data culminated in the publication of a handbook of standards in 1996, being described as ‘the result of a four-year effort of the professionals of six African museums and the ICOM International Committee for Documentation (CIDOC)’ (Manuel de normes 1996:3).

In South Africa, there is at present no national drive to establish museum documentation standards – regarding neither data structures nor terminology. In the 1980s some pioneering work was done by the Documentation Group of the South African Museums Association (SAMADOC) who distributed a ‘proposed’ museum documentation data standard in 1987. This is a complete listing of all categories which might be found in any kind of museum documentation and endeavours to assign order to the elements or categories and
their constituent parts. It also specifies the coding to be used for each element (*Museum documentation standard* 1987:1). Unfortunately there is no published information available on the usage of this data standard in South African museums. No final standard has been published since 1987 (Immelman 2004).

On a regional basis, the (now defunct) Transvaal Provincial Museum Service succeeded in standardising the museum catalogue records of their affiliated museums from the 1970s to the 1990s by developing and distributing cataloguing manuals. Attention was also given to the naming of objects so that a central catalogue with standardised terminology could be established at the Museum Service Head Office. Unfortunately this project was discontinued in 1994 because of financial constraints and changes in the political dispensation in South Africa.

Why are museums lagging behind on standardisation of records? Published standards are available for activities with a tradition of cooperation such as library cataloguing, which is based largely on formal characteristics of items. In contrast, museum cataloguing incorporates substantial scholarly interpretation of unique items and it may be argued that the diversity of museum collections and the unique nature of many museum objects present considerable problems for standardisation (Wentz 1995:201).

Although a data structure is the logical first step in the development of standards, a structure alone will achieve neither a high rate of descriptive consistency on the part of cataloguers, nor a high rate of retrieval on the part of end users. The choice of words (data values) and the selection, organisation and formatting of those words (data content) are two other types of standards that must be used in conjunction with an agreed-upon data structure (*Cataloguing cultural objects* 2004: Introduction).

**Object Names**

**Fields and Structure**

The MDA standard includes fields called NAME, SIMPLE NAME, FULL NAME, OTHER NAME, CLASSIFIED NAME, CATEGORY, CLASSIFIED CATEGORY, FULL CATEGORY, SIMPLE CATEGORY, DESCRIPTOR and CONCEPT, among others. Many of these fields can have further sub-structure. Although the Standard gives definitions, the distinctions are difficult to convey to non-specialists.

Although the MDA data standard allows an object to have several occurrences of SIMPLE NAME, many museums have imposed a limitation of one SIMPLE NAME per object. This allows lists to be produced in which each item appears only once and a single name can even be used for the physical arrangement of objects in storage, shelving all the teapots together, for example. ... The FULL NAME field is sometimes used to contain terms that qualify or amplify the SIMPLE NAME (Will 1993:158).

For example:

<table>
<thead>
<tr>
<th>Simple name:</th>
<th>Submachine gun</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full name:</td>
<td>Auto-ordnance, Thompson Submachine Gun M1, .45</td>
</tr>
<tr>
<td>Simple name:</td>
<td>Medal, British</td>
</tr>
<tr>
<td>Full name:</td>
<td>British war medal (1914-1920)</td>
</tr>
</tbody>
</table>
Will (1993:158) states that such distinctions are more trouble than they are worth:

In particular, dividing index terms into many different fields means either that each field has to be specified separately when constructing a search statement, or else a combined index has to be prepared, which contradicts the argument for separating them in the first place. Most thesauri used for indexing bibliographic material have no problem in accommodating different types of term, including names of objects, disciplines and activities; these are not hierarchically related but it is convenient to be able to make associative relationships ("related term" or "see also" references) between them.

When assigning an object name to natural science specimens, the term may be repeated to record both the varying levels of classification required (genus, species, etc.) as well as the common or simple name describing the specimen (skull, bone, etc.) (CIDOC guidelines 1995).

It is possible to repeat multiple object names for an object, for example 'mug' and 'souvenir', to indicate different characteristics of the same object (CIDOC guidelines 1995).

Language

When indexing the heritage of specific cultural groups the recording of vernacular object names or vernacular terminology for concepts is important.

Several language policy decisions have to be made for museum databases in countries with more than one official language. For instance, in bilingual countries descriptive cataloguing as well as indexing may be produced in both national languages. Alternatively, the descriptive cataloguing might be in one official language while the indexes are produced in more than one language.

The multiculturaFmultilingual status of a country is often reflected in its museum records. The National Cultural History Museum's acquisitions registers and catalogue cards bear witness to this. Its very first object recording in 1892 (called the entry register) was in Dutch, made by the staff of the Staatsmuseum which is the predecessor of the National Cultural History Museum. In 1903, after the Anglo-Boer War, when the museum's name was changed to Transvaal Museum, the recording language became English. The Museum's first history section register (when it was still part of the Transvaal Museum) was started in English but after the first 3,372 entries, the new registrar switched it to Afrikaans. For some reason the last 20 entries are once again in English (Grobler 2004:187). The second acquisitions register also displays alternating English and Afrikaans entries without any explanation or apparent policy. From 1964 when it became an independent cultural history museum, the registers and other internal records such as the catalogue cards were written in Afrikaans, which was one of the two official national languages of South Africa up to 1994.

With the new democratic government in South Africa, major policy changes were implemented. South Africa now has 11 official languages and museums are reviewing their language policies accordingly, which has an effect on cataloguing and indexing policies. If the cataloguing language is changed, measures to link old records to the new should be implemented. This may be done through translations of records or by developing multilingual thesauri to be applied for indexing and retrieval.
Levels of Specificity

The level of specificity should be appropriate to the collection, for example for a collection containing three clocks among other types of objects, the term ‘clock’ is a useful object name. However, for a specialist collection of clocks, more specific object names are required to distinguish between different types of clocks.

Very general object names can be assigned in order to group types of objects together, although if a structured thesaurus is used then this will be done automatically: for example the term ‘furniture’ would automatically include the term ‘chair’ as a narrower term. If a thesaurus is not used, both terms could be recorded separately (CIDOC guidelines 1995).

Vocabulary

It is important to use the same object name for all similar objects in a collection (CIDOC guidelines 1995). The names of objects and other subject indexing terms used for retrieval need to be standardised by using a controlled vocabulary list of some kind, preferably a thesaurus that gives a full structure of relationships between preferred and non-preferred terms, broader terms (BT) and narrower terms (NT). ‘Beds’ could then be retrieved in a search for all kinds of furniture (Will 1993:159).

No single thesaurus is generally accepted in the museum world. Various term lists have, however, been used or developed by different museums. Published lists include Nomenclature and the Hertfordshire simple name list, neither of which has a BT/NT relationship, and the Art and architecture thesaurus, which does not allow a term to have more than one broader term (Will 1993:159).

The Art and architecture thesaurus (AAT) developed by the Getty Information Institute is a carefully constructed terminology resource which focuses on more than just art and architecture. It provides terminology for the description, documentation and retrieval of cultural heritage information. Although its current focus is on the cultural heritage of Western Europe and North America, the Getty Information Institute Vocabulary Program is expanding its coverage. Terminology for African styles, periods and object names are being added (Lanzi 1998:30-31). The AAT is a very large list, containing 90 000 terms, of which 24 500 are descriptors. These are grouped into seven facets, which contain a total of 33 sub-facets or hierarchies (Will 1997:38). The seven facets are as follows: Associated concepts; Physical attributes (e.g. design elements, colours); Styles and periods; Agents (people, organisations); Activities; Materials; Objects.

Nomenclature’s system (Chenhall 1988) is used by a few museums in South Africa. This system is concerned with a formal, generic object term and a general classification for that object based on its use. Information that is normally carried in secondary data fields such as material, style, period, quantity and maker is not used in creating object terms. ‘Chippendale mirror’ and ‘Barbie doll’ are not acceptable object terms. Object terms are generic identifiers that indicate an artefact’s original function without reference to secondary data. MIRROR and DOLL are object terms. In a subject index, these generic terms enable the researcher to draw finer comparisons by establishing a generic population. (Chenhall 1988:II-2). Nomenclature provides a limited set of acceptable terms to identify objects and practise some simple conventions, such as inverting object terms so that nouns
precede adjectives to force like objects to appear together alphabetically. Plural forms of object terms are avoided (Chenhall 1988:I-1). Besides being brought together by virtue of sharing object terms, collection pieces are related in the classifications of the Nomenclature hierarchy (See Figure 2 in the addendum). For the purposes of indexing and collection management, the classifications are most important after object terms (Chenhall 1988:II-2). Nomenclature contains useful features such as ‘use’ references and related terms and some acquire regarding scope of terms. (See Figure 3 in the addendum for an example of an alphabetical list of terms.)

Another term list which is used in South African museums is Trefwoorde vir kultuurhistoriese voorwerpe (Slabbert 1974) which uses a similar binomial object term system. However it has no broad object categories such as the Nomenclature hierarchies.

The definitions or scope notes found in some term lists and thesauri (such as the Art and architecture thesaurus) are invaluable to the indexer, especially when the indexer is not an expert in the field of the objects which have to be indexed. When presented with object name inconsistencies, for instance during upgrading of collection cataloguing and indexing, the indexer will have to study literature (hopefully with good illustrations), compare all old records in the museum, consult with researchers and view the objects in storage. Recently such a case presented itself in the National Cultural History Museum, where the most recent inventory for the ceramics collection listed 18 ceramic vessels for storing food substances under the term VETPOT (vessels for storing butter or fat). When the original catalogue records were traced (by acquisition number), the following array of terms were found in the object name fields on the various object records:

CAPE STONEWARE; VETPOT; VETVAT; POT 18de-19de eeu; VAAS, 18de eeu; VAAS, 1890 - Keulse vaas (Cologne); MARTAVAAN VAAS POT (Martaban Pot. Martaban is a port in lower Burma); MARTAVAANVAAS, 18de eeu.

The indexer has to clear up two matters. These are firstly to ascertain whether the recent inventory identifies the objects correctly (giving them all the same name VETPOT) and secondly to evaluate the old naming system on the catalogue records. It is clear that the original object names on the old catalogue cards were not applied according to a rigid naming system: provenance, form and function were all applied as basis for object names. In cases like these, the indexer needs the inputs of the appropriate curator or researcher.

After viewing these objects the researcher reported that although they are all food storage jars, they were not necessarily used for fat. Water, oil, butter, pickles and even opium were also transported in these vessels. According to their physical appearance and history, they were of two types, namely the Cologne stoneware and Oriental stoneware named after the port Martaban. The curator suggested that all these vessels be indexed under a general object term linked to its use. JAR, FOOD-STORAGE was selected by the indexer, using the Nomenclature of Chenhall which is at the moment being introduced and tested as naming instrument at the National Cultural History Museum. The other terms, namely ‘Martaban pot’ and ‘Cologne vase’ or ‘pot’, will be used as ‘use’ references in the (English) catalogue. The English and Afrikaans terms and references will be mapped in a bilingual thesaurus.
Other Challenges concerning Object Names

The indexer has to find solutions to index objects which are not properly identified, objects with parts and accessories, object fragments, objects which are presented in pairs or sets and objects which cannot be easily linked to a single classification because they were made to serve many general purposes. *Nomenclature* (Chenhall 1988:II-4 to II-6) suggests different solutions, for example

<table>
<thead>
<tr>
<th>Description</th>
<th>Name Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saxophone case</td>
<td>SAXOPHONE CASE or SAXOPHONE [Case]</td>
</tr>
<tr>
<td>Glove pair</td>
<td>GLOVE PAIR or GLOVE [Pair]</td>
</tr>
<tr>
<td>Lamp base</td>
<td>LAMP BASE or LAMP [Part - base]</td>
</tr>
</tbody>
</table>

Each institution is urged to create its own rules to handle these situations.

As well as naming objects and retrieving them by subject, many other entities in relation to museum objects have to be indexed, such as people, organisations, places, events and materials.

People

Names of people who have some association with the object should be indexed, such as makers, users and donors. These names may be personal or they may represent groups such as organisations, institutions and cultural groups.

Detailed rules for the forms of names to be used for people and organisations are given in the *Anglo-American cataloguing rules* (2nd ed), widely used in libraries. There is general acceptance that these can be used as guidelines for museum applications too, although many existing users apply simpler rules of their own. The rules for the choice of names applicable to books are not so easy to apply to objects, because names are not generally printed on the items themselves; they have to be obtained from accompanying documents or supplied from the cataloguer’s own knowledge or from reference sources (Will 1993:160).

In history museums, much attention is usually given to biographical information: personal, family and organisational histories are always recorded when objects are collected. These form biographical data files. Name indexing may be done by creating links between biographical and object records. According to Will (1993:160), biographical records can take advantage of a thesaurus structure to hold links between related people and organisations, as well as references from non-preferred to preferred forms.

Another source of names which might be consulted by the indexer is the *Union list of artist names* (ULAN). The first edition of the ULAN (1995) was the product of a seven-year effort to merge artist and architect names and biographical data from nine Getty Trust projects and databases in a single reference. Although the geographical coverage of the ULAN is global, its focus is on the post-medieval artists of Western Europe and North America. The ULAN does not advocate a single preferred form of an artist’s name, but presents a range of choices that reflect art historical usage. In the ULAN, all name forms (including pseudonyms, nicknames, and orthographic and linguistic variants) are clustered together in a single entry. Each entry also includes biographical data and bibliographic
citations referring to the artist. The ULAN can be used as a source for authorities, or as a data value standard in the documentation (cataloguing, indexing and description) of cultural heritage information (Lanzi 1998:36-39).

Geographical Entities

When indexing places, it is convenient to create a full hierarchical structure, so that, for example, an item which has been indexed with the term Inverness will be retrieved in a search for any Scottish items, assuming that the computer system can accept an enquiry of the form ‘Scotland and all its narrower terms’. Such systems are not widespread at present, so that museums often have to use the more cumbersome approach of including every level of the hierarchy in every record catalogued. The above item might then have to be given the terms ‘Europe’, ‘United Kingdom’, ‘Scotland’, ‘Highland region’ and ‘Inverness’ rather than just the one most specific term (Will 1993:160).

A vocabulary which may be used for an index to place names is the *Getty Thesaurus of geographic names* (TGN) which is a structured, hierarchical vocabulary containing names and other information about geographical places. The scope of the TGN is global; all continents and all nations are represented. The TGN is a vocabulary, not an authority. However, each place recorded in the TGN contains a ‘preferred name’ or entry-form name. It is necessary to flag one name to represent that place in the hierarchy and in alphabetical lists. Since the audience for the TGN is international, the preferred name is the name commonly used in the language of the place (the ‘vernacular name’) (Lanzi 1998:39-40).

The geographical name changes which take place over time usually present some challenges for the indexer. Each museum has to formulate a policy on the system to use, that is either index under the most recent geographical name and make references from the previous name to the preferred recent name. Otherwise both old and new names for places may be used in indexing, depending on the historical association that the museum object has to the place. References to relate these places should be made. In South Africa, there are numerous examples of geographical name changes over the years but the phenomenon has accelerated since the new democratic government came into power in 1994. Local name changes are for example ‘Pietersburg’ in ‘Northern Province’ which is now officially ‘Polokwane’ in ‘Limpopo’ province. Examples of regional changes are the four provinces Gauteng, Mpumalanga, Limpopo and North West which previously formed part of one province, namely Transvaal.

Dates

It is important to index the date or the range of dates associated with the history of objects or specimen. Patricia Harpring of the Getty Vocabulary Program in the United States touches on the issue of display information (on the object record) versus the structuring of the same information for indexing. These issues often arise when one tries to apply existing rules to the automated environment, particularly when the rules were devised to accommodate a non-computerised environment such as a card catalogue. Harpring (1999:33-34) states:
A successful catalog of art and cultural heritage information should maintain a healthy balance between flexible standards and consistent rules. On the one hand, it must allow the expression of uncertainty and ambiguity where the discipline requires it, and it must accommodate differences in style between departments and institutions. On the other hand, it must apply rules consistently where it counts – namely for information that is indexed for retrieval.

The expression of dates presents a common example of this dichotomy. It is necessary to allow date information to be displayed in a way that accurately expresses ambiguity, yet is intelligible to the end-user; at the same time, this information must be formatted consistently to allow retrieval. It is not always true that a work of art was created in a given year, such as “1915”. Dates for art and cultural artifacts are often uncertain or approximate, as with dates of creation such as “probably 1511” or “ca. 430 BCE”. Sometimes the date is known only to the specificity of a decade or a century, for example, “between 1880 and 1890” or “17th century”. [...]

Which rules might best serve this fluid situation? All of the above examples illustrate “fuzzy” dates, which are not clearly delimited by a firm set of precise numbers. Various standards and guidelines deal with this issue in different ways. Many mainly address how to achieve a consistent display of date information, but do not adequately consider how to retrieve it.

A ... practical method is laid out in the Guide to the Description of Architectural Drawings and Categories for the Description of Works of Art (CDWA). According to these guidelines, dates of creation or dates for people can be recorded 1) as text or “display dates”, and 2) the display date is then indexed using two integers delimiting the beginning of a date span and the end of a date span. The indexing dates are estimated based on criteria suitable for the material at hand, and are generally not visible to the end-user.

The principles discussed above with reference to dates apply to other museum information as well.

**Styles and periods, events, activities and materials**

To fully exploit the wealth of information contained in museum collections, indexes should be set up to retrieve objects by styles, period names, cultural traditions, materials and other subjects. Many sources are available for application of controlled vocabulary in indexing. (See paragraph on availability of vocabularies.)

**Classification systems**

A complementary technique to the alphabetical subject indexing which has been discussed is the assignment of classification notations or codes to object records. Classification notations have the advantage that they allow subject lists to be produced under complex subject headings. These may be specific to the context of the collection; they allow physical
arrangement of objects in store in subject order, like shelf marks in a library; and they allow selection of a predetermined subset of a collection. On the other hand, they have the disadvantages that an alphabetical index to the classification has to be provided, and ideally a searcher needs to have a copy of the classification headings that are relevant (Will 1993:159).

A classification system shares many of the advantages and disadvantages of a thesaurus, and, indeed, the hierarchical relationships of a good thesaurus lead to an implied classification in any case. One classification system quite widely used in the United Kingdom is the Social History and Industrial Classification (SHIC) which uses as its primary principle of division the historical context in which objects were used. This gives a different perspective from the thesaurus systems which focus on what the objects actually are (Will 1993:159). The main classes are

- Community life
- Domestic and family life
- Personal life
- Working life

**Availability of vocabularies**

Apart from the vocabulary tools which have been mentioned above, the indexer will be able to trace many other useful terminologies, covering many different subject areas by accessing the following websites:

- [http://www.mda.org.uk MDA (Formerly the Museum Documentation Association, UK)](http://www.mda.org.uk)
  (Access the resource “wordHoard”.)

**Free text**

As well as controlled indexing terms and classification schemes, a third necessary approach is the indexing of the individual words in object description. Searching on the actual words used in the descriptions is helpful for identifying half-remembered items, and will retrieve by specific terms peculiar to individual objects, trade names, jargon, et cetera (Will 1993:160). On the other hand inconsistencies in description mean that the searcher has to think of all terms which might have been used, including synonyms, grammatical variants, and generic and specific terms. Many existing inventory descriptions are inadequate, and editing them will take a lot of work, generally requiring examination of the objects. When searching free text there is no guarantee that items retrieved represent all items of that type in the museum, because other items may have been differently described (Will 1993:160).

**Conclusion**

Cataloguing and indexing of museum objects form an important part of collections management in museums. First it enables retrieval of information which is necessary
for accountability and security of the collections. Secondly, it facilitates the retrieval of subject information needed for research, publication, education and exhibits. Exchange of information between museums is being promoted in this way and development of common projects regarding research and exhibitions become a possibility.

**BIBLIOGRAPHY**


Immelman, HFL. 2004. Personal communication. [Dr HFL Immelman was a SAMADOC Committee Member and Co-author of the Draft Museum Data Standard in 1987].


Figure 1: List of fields for collections of the Humanities and of Natural Sciences.


<table>
<thead>
<tr>
<th>1 OBJECT MANAGEMENT</th>
<th>2 OBJECT DESCRIPTION</th>
<th>3 HISTORY OF THE OBJECT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Country</td>
<td>2.1 Image</td>
<td>3.1 Producer</td>
</tr>
<tr>
<td>1.2 Institution where the object is located</td>
<td>2.2 Object category by form or function</td>
<td>3.2 Place of production</td>
</tr>
<tr>
<td>1.3 Owner institution name</td>
<td>2.3 Object category by technique</td>
<td>3.3 Group of production</td>
</tr>
<tr>
<td>1.4 Accession number</td>
<td>2.4 Specimen form</td>
<td></td>
</tr>
<tr>
<td>1.5 Acquisition or accession method</td>
<td>2.5 Body part</td>
<td></td>
</tr>
<tr>
<td>1.6 Acquisition or accession date</td>
<td>2.6 Sex</td>
<td></td>
</tr>
<tr>
<td>1.7 Acquisition source</td>
<td>2.7 Age or phase</td>
<td></td>
</tr>
<tr>
<td>1.8 Permanent location of object</td>
<td>2.8 Classified name (taxonomic)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.9 Common name</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.10 Object name</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.11 Local name</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.12 Name in another language</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.13 Title</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.14 Material</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.15 Technique</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.16 Dimensions</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.17 Physical description</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.18 Content</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.19 Inscription</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.20 Condition</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3.1 Producer</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3.2 Place of production</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3.3 Group of production</td>
<td></td>
</tr>
</tbody>
</table>

*All fields of object management are relevant to both Humanities (H) and Natural Sciences (NS).*
3.7 Use
3.8 User
3.9 Place of use
3.10 Group of use
3.11 Date of use

COLLECTION [ All fields of Collection are relevant to both Humanities (H) and Natural Sciences (NS) ]
3.12 Collection or excavation locality
3.13 Site geographical coordinates
3.14 Coordinates of the object within the site
3.15 Site reference or name
3.16 Type of site
3.17 Age
3.18 Geological period of the feature from which the object was collected
3.19 Environmental details
3.20 Group from which the object was collected
3.21 Collector
3.22 Expedition
3.23 Collection or excavation date
3.24 Collection or excavation method
3.25 Collection field number
3.26 Historical comments

4 DOCUMENTATION
Each museum should organize its documentation according to its needs but the references for this documentation should be standardized to facilitate research.

Figure 2: Hierarchical list of preferred terms


CHAPTER IV - HIERARCHICAL LIST OF PREFERRED TERMS
CATEGORY 4: TOOLS & EQUIPMENT FOR MATERIALS

*CULTURAL T&E

Avarancator ... use PRUNER, TREE
BAG, FRUIT PICKING
BALER, COTTON
BALER, HAY
Bar, Planting ... use DIBBLE
BARROW, APPLE
Basket, Berry ... use BASKET, GATHERING
BASKET, COTTON
Basket, Egg-gathering ... use BASKET, GATHERING
Basket, Fruit-picking ... use BASKET, GATHERING
BASKET, GATHERING ... BOWL, GATHERING
Basket, Potato ... use BASKET, GATHERING
BASKET, WINNOWING
BEARDER, BARLEY
BELT, BINDERS
BILLHOOK, Tin HOOK, PRUNING
BINDER, CORN
BINDER, GRAIN
Binder, Row ... use BINDER, CORN
Binder, Twine ... use BINDER, GRAIN
Binder, Wire ... use BINDER, GRAIN
BLOWER, ENSI LAGE
Blower, Forage ... use BLOWER, ENSILAGE
Blower, Impeller ... use BLOWER, ENSILAGE
Blower, Silage ... use BLOWER, Ensilage
Blower, Silo ... use BLOWER, ENSILAGE
Board, Dibble ... use DIBBLE
Board, Spotting ... use DIBBLE
Boat, Stone ... use STONEBOAT

Figure 3: Alphabetical list of preferred terms


CHAPTER V - ALPHABETIC LIST OF PREFERRED TERMS

<table>
<thead>
<tr>
<th>Item</th>
<th>Category</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAG, NEEDLEWORK</td>
<td>TEXTILEWORKING T&amp;E</td>
<td>104</td>
</tr>
<tr>
<td>BAG, ORE</td>
<td>MINING &amp; MINERAL HARVESTING</td>
<td>97</td>
</tr>
<tr>
<td>BAG, PAJAMA</td>
<td>PERSONAL GEAR</td>
<td>35</td>
</tr>
<tr>
<td>BAG, PASTRY</td>
<td>FOOD PROCESSING T&amp;E</td>
<td>58</td>
</tr>
<tr>
<td>BAG, POWDER</td>
<td>ARMAMENT - ACCESSORY</td>
<td>130</td>
</tr>
<tr>
<td>BAG, PUNCHING</td>
<td>SPORTS EQUIPMENT</td>
<td>220</td>
</tr>
<tr>
<td>Bag, Sand</td>
<td>REGULATIVE &amp; PROTECTIVE T&amp;E</td>
<td></td>
</tr>
<tr>
<td>use SANDBAG</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BAG, SCHOOL</td>
<td>PERSONAL GEAR</td>
<td>35</td>
</tr>
<tr>
<td>BAG, SLEEPING</td>
<td>BEDDING</td>
<td>9</td>
</tr>
<tr>
<td>BAG, TAMPARING</td>
<td>MINING &amp; MINERAL HARVESTING T&amp;E</td>
<td>97</td>
</tr>
<tr>
<td>Bag, Tobacco</td>
<td>PERSONAL GEAR</td>
<td></td>
</tr>
<tr>
<td>use POUCH, TOBACCO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BAG, TRICK OR TREAT</td>
<td>CEREMONIAL ARTIFACT</td>
<td>206</td>
</tr>
<tr>
<td>BAG, WATER</td>
<td>LTE - ACCESSORY</td>
<td>193</td>
</tr>
<tr>
<td>BAG, WHALER’S</td>
<td>FISHING &amp; TRAPPING T&amp;E</td>
<td>56</td>
</tr>
<tr>
<td>BAGATELLE</td>
<td>GAME</td>
<td>217</td>
</tr>
<tr>
<td>BAGPIPE</td>
<td>MUSICAL T&amp;E</td>
<td>172</td>
</tr>
<tr>
<td>BAILER</td>
<td>MINING &amp; MINERAL HARVESTING T&amp;E</td>
<td>97</td>
</tr>
<tr>
<td>BAILER</td>
<td>WATER TRANSPORTATION - ACCESSORY</td>
<td>201</td>
</tr>
<tr>
<td>BALALAIAKA</td>
<td>MUSICAL T&amp;E</td>
<td>172</td>
</tr>
<tr>
<td>BALANCE</td>
<td>WEIGHTS &amp; MEASURES T&amp;E</td>
<td>166</td>
</tr>
<tr>
<td>BALANCE, ANALYTICAL</td>
<td>WEIGHTS &amp; MEASURES T&amp;E</td>
<td>166</td>
</tr>
<tr>
<td>BALANCE, ASSAY</td>
<td>MINING &amp; MINERAL HARVESTING T&amp;E</td>
<td>97</td>
</tr>
<tr>
<td>BALANCE, BERANGER</td>
<td>WEIGHTS &amp; MEASURES T&amp;E</td>
<td>166</td>
</tr>
<tr>
<td>BALANCE, BOB</td>
<td>MINING &amp; MINERAL HARVESTING T&amp;E</td>
<td>97</td>
</tr>
<tr>
<td>BALANCE, DEMONSTATION</td>
<td>WEIGHTS &amp; MEASURES T&amp;E</td>
<td>166</td>
</tr>
<tr>
<td>BALANCE, GRAM-CHAIN</td>
<td>WEIGHTS &amp; MEASURES T&amp;E</td>
<td>166</td>
</tr>
<tr>
<td>Term</td>
<td>Category</td>
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Abstract

Early Lesotho bibliography was encompassed within volumes which covered South Africa, but generally omitted items in African languages. An account is given of the origins of a book published in 1980 which attempted to survey with annotations all published literature on Lesotho. The subsequent Lesotho Annotated Bibliography evolved from conventionally published format to a computer database, whose structure and arrangement is described. Details are given of the persons most directly involved in these activities, and the current challenges to make the bibliographic database more comprehensive and accessible. Indexing is discussed in relation to electronic media, hard copy format, and making provision for merging a number of separate indexes. Problems arising from Sesotho orthography and place names are discussed.

Introduction

Many African states have boundaries which were defined by colonial powers. Lesotho, however, has a rather different history. It was already a nineteenth century kingdom, when its monarch King Moshoeshoe sought British protection to avoid conquest from the neighbouring Orange Free State Republic. For 98 years from 1868, Lesotho (known to the British as Basutoland) was under British rule, until independence was restored to the Crown Colony in 1966. (Contrary to the belief of many, its legal status was not that of a protectorate.) The country is unusual in Africa in having a single national language, Sesotho, which shares with English the status of being one of the official languages. It also has the distinction of being an enclave within a larger state, the Republic of South Africa. This is a consequence of the people of Lesotho, the Basotho, specifically requesting Britain to exclude them when four former British colonies became the Union of South Africa in 1910. The Basotho had had a disastrous period (1871-1883) when the British had annexed Basutoland to the Cape Colony. In a period when the franchise excluded black voters, they did not again want to be ruled by a Parliament in which they would not have a voice. There is one other curious feature about Lesotho. Almost all of the early literature about the country is not in either of the official languages but in French, the language of the two main groups of missionaries, the Paris Evangelical Missionary Society (PEMS) and the Oblates of Mary Immaculate, who first established missions, schools and printing works in Lesotho. The PEMS arrived in Lesotho in 1833 and the Catholic Oblates in 1862.
Early Bibliography

As a result of its history and geography, Lesotho occupies an equivocal position bibliographically vis-à-vis South Africa. Early bibliographers such as Mendelssohn (1910) tended to regard Lesotho as an integral part of South Africa. The revision and continuation of Mendelssohn’s work *A South African bibliography to the year 1925* (1979), together with its supplement (Rossouw & Vockerodt 1991) and indexes (Rossouw 1997), provided good coverage of many items published in or about Lesotho up to 1925, but specifically excluded government publications, newspapers, maps and African language items. As a result, the then rapidly growing Sesotho literature was excluded.

Sesotho literature and newspapers to 1907 were fairly comprehensively covered in a manuscript catalogue finally published 80 years later (Ellenberger 1987) and a useful listing of Sesotho books up to 1965 was made by Ferragne (1974). For newspapers, an annotated bibliographic guide covering the period to 1976 was made by Switzer and Switzer (1979). There are a number of other bibliographies exclusively or partially devoted to Lesotho or Sesotho which are listed in Willet and Ambrose (1980). Several of these were bibliographies undertaken by students at the University of Cape Town School of Librarianship and the University of the Witwatersrand Department of Bibliography, Librarianship and Typography over the period 1946 to 1970.

The ‘Comprehensive’ Bibliography

Tertiary education in Lesotho had begun as early as 1945 with the establishment of Pius XII College at Roma. Its assets were acquired by the British Government in 1964 to establish the Roma Campus of what was then known as the University of Basutoland, Bechuanaland Protectorate and Swaziland (UBBS) (renamed in October 1966, when two of the countries it served gained independence, as the University of Botswana, Lesotho and Swaziland [UBLS]).

Among staff recruited to UBBS in 1965 were Shelagh Willet as Deputy Librarian and David Ambrose as Lecturer in Mathematics. Ambrose developed an interest in Lesotho literature to the extent of making a personal collection and keeping an annotated card index of other items about the country which he located in libraries and collections in the region and overseas. Willet in the meantime founded in the University Library the Boleswa (ie Botswana, Lesotho & Swaziland) Collection of materials specially devoted to the three countries which UBLS served.

When an offer came to Willet from the Clio Press to compile an annotated bibliography for Lesotho in their planned World Bibliographic Series, she approached Ambrose, resulting in a collaboration of more than 10 years which led finally to the publication of the volume *Lesotho: a comprehensive bibliography* (Willet & Ambrose 1980). The volume differed from others in the series, which were select bibliographies, because Willet and Ambrose persuaded Clio as an experiment to allow them to compile a ‘comprehensive’ bibliography, arguing that the total literature in Lesotho as a relatively small country could be encompassed within a single volume, even if the book included theses, periodical articles, newspapers and what was then a relatively manageable total corpus of ‘grey literature’. (At
the time desktop publishing was virtually unknown, photocopiers were still relatively rare, and the consultancy business was still in its infancy, so that there was comparatively little informally published grey literature.)

The method of compilation at the time was on cards, which included both annotations and keywords; keywords were divided into primary and second keywords according to importance, although in the final product these keywords were detached from their entries and conflated without distinction into a massive 76-page computer-generated index which also included authors and book titles (although not titles of articles in periodicals).

When they took it on neither Clio nor the compilers realised how much would be involved in a comprehensive bibliography. The final product, which included an extensive publishing history for Lesotho was a book of over 500 pages and 2,562 individually annotated items (Willet & Ambrose, 1980). The book was for a long time the largest in the Clio World Bibliographic Series (larger than those which followed on the United States and on the Soviet Union!) and ultimately, among bibliographies for individual nations, only the World Bibliographic Series volume on Japan was larger.

Eventually Clio required a revised volume, and for this conformity to the select bibliography nature of the rest of the series was a requirement. The bibliography, as will be seen, had meanwhile grown as a comprehensive bibliographic database, so it was left to someone else to produce the select bibliography (Johnston, 1996), which was reduced to 563 entries (a number of them taken from the original work unchanged) and well over 200 pages. On this occasion, separate author (5 pp.), title (15 pp.) and subject (9 pp.) indexes were provided. Another change was that within sections, entries were alphabetical by title rather than by author as in the original work.

### Bibliographic Activities in the 1980s

Because of its size, the bibliography published in 1980 took three years to emerge, and hence only included items up to 1977. Meanwhile the circumstances of its compilers had changed.

Willet had become the founder librarian of the Botswana Campus of UBLS in 1971, but for a number of years left librarianship to manage a Quaker-funded centre for refugees in Botswana. She ultimately returned to bibliography and participated in an ongoing series of volumes on the Khoe and San (Willet, Monageng, Saugestad & Hermans, 2002; Willet, 2003).

Ambrose meanwhile was seconded for the period 1981 to 1985 from the Department of Mathematics at what was now the Roma Campus of the National University of Lesotho to become founder of the Documentation and Publications Division of the university's recently created Institute of Southern African Studies. This gave him the opportunity to set up a publicly available collection of many of the items in the bibliography, together with new items which included many examples of the now rapidly expanding grey literature genre. He also initiated the publishing of bibliographic supplements to the comprehensive bibliography in seven issues of a periodical called *Lesothana* (1982-1984). These published issues both covered new materials, but also added many older items to the original 'comprehensive' bibliography, which had certainly been less than comprehensive in relation to articles in nineteenth century French missionary periodicals. The supplements
covered 700 entries and some 35 per cent of the areas in the 1980 work when Ambrose was reclaimed by the Department of Mathematics which suffered perennial staff shortages.

Bibliographic Activities in the 1990s and Beyond

In 1990, Ambrose was able to negotiate a new status as Honorary Associate Research Professor attached to the National University of Lesotho’s Institute of Education. This unpaid position gave him considerable flexibility to undertake various activities, a number of which resulted in publications in a variety of fields. A few of these activities required bibliographic compilations of which the most notable was an annotated 320-page bibliography for Lesotho water resources management (Ambrose 1996). At the same time, books that had appeared since the 1980 bibliography were systematically listed alphabetically by author in successive issues of the periodical *NUL Journal of Research* (1991-). By 2001 (the most recent issue), there had been nine issues of the periodical and a total of 475 Lesotho-relevant books had been listed, covering authors with names from A to the first part of the letter M.

By the mid-1990s, the Lesotho bibliography database was fragmented between the 1980 published volume, the various published items just mentioned and a card index of over 3,000 cards which had been accumulated since the 1977 cut-off date for the 1980 published book. To facilitate retrieval of items by topic, these cards had all been photocopied and made into a second card index using the same topic headings of the 1980 book. The bibliographic work was however at an important turning point. The amount of material was too great to be published except in a series of volumes, and such a series would in any case not be commercially viable and would soon be out of date.

Up to this point, computers had been used as word processors to facilitate publication, but not for a main database. A computer database for the *The Lesotho annotated bibliography* was first created in 1996, and subsequently the aim has been to merge all earlier activities as well as new items into a single accessible database. The details can be found in the fourth edition of *The Lesotho annotated bibliography: a brief survey* (Ambrose:2003a). As at July 2003, the database was divided into 24 ‘volumes’ subdivided overall into a total of 196 sections, each covering a subject area and each section prefaced (although not all prefaces had yet been written) by a summary of the subject area and its known Lesotho literature. Since many items have content relevant to several sections, it was decided at an early stage to include cross-references between sections. The sections themselves are arranged in orders appropriate to their content. For example, whereas the section ‘Fiction in Sesotho’ is logically arranged alphabetically by author, the section ‘Census Reports’ is arranged chronologically. A few sections are also arranged numerically, for example the section ‘1: 50 000 & 1: 100 000 Scale Maps’ is arranged by map sheet number, while for the section ‘Lesotho Highland Water Project Contracts’ the contract numbers form a logical ordering system. Overall, out of 196 sections, 117 are arranged chronologically, 71 alphabetically and 8 numerically.

As at July 2003, the 196 sections contained a total of 4,882 items, 1,848 cross-references between sections and 3,168 pages of text. Priority was given to putting new items into the database. Consequently transfers from the various complementary bibliographic sources
were still some way from completion, with only 13 per cent of Lesothana items, 61 per cent of NUL Journal of Research items, 64 per cent of the water resources bibliography (Ambrose 1996), and 18 per cent of Lesotho: a comprehensive bibliography (Willet & Ambrose 1980) transferred. These were deemed less urgent because of their availability in another published form. However, it was of some concern that at this point only 41 per cent of the 3,492 unpublished cards covering the period 1977-1996 had so far made it into the bibliography.

The computer database as a whole is not online or widely available. Its appropriate publication may be on CD-ROM, when it is more complete. There are two public access points in Lesotho via Sechaba Consultants in Maseru and the Campus Bureau in Roma. However, sections of the bibliography for which there is a high demand are available published in hard copy, each with an appropriate ISBN; 14 such sections are available so far, of which three have reached second editions.

**Indexing**

The aim of indexing is to provide the user of a book, periodical or other media item fast access to information. Technological developments have both facilitated indexing and at the same time posed questions as to the need for traditional indexes of the type commonly found at the back of a publication. If the item is available in electronic format, a search command with more flexible alternatives than any traditional index can find information very quickly.

In relation to the bibliographic database, the practice of including keywords at two levels has been maintained, so that each item may have principal keywords indicating that for these topics it is an important source of information, and secondary keywords indicating it as a significant but less important source of information on those topics. The principal keywords are distinguished by using boldface type. However, although this has been the continuing convention with the Lesotho bibliographic work, in practice the indexes themselves have not so far distinguished between the two levels of keywords.

The present practice has been to provide indexes only to the published sections of the bibliography. These are compiled in an initial format where each entry is prefixed by a dot, and the ‘dot’ index stored for future use. For example, taking Section 132, Rock paintings (Ambrose 2003b), there are two alphabetical indexes, one for authors, compilers, editors and artists and the other for keywords. An author entry in the dot index may read ‘Inskeep, R R .320’ in the initial dot index which is stored, but reads ‘Inskeep, R R 320’ in the actual printed index. The full bibliography number for the item is 132.320, but within the section, since all items have the prefix 132, it is unnecessary to repeat them. Thus all dots are deleted by a simple exchange command to create the index for the published section. However, when it comes to merging indexes a different exchange command, replacing ‘.’ by ‘132.’ is used, so that the full item number appears and can be merged into an index with items from other sections of the bibliography. At this point, merged indexes have not been generated, but it has seemed important to provide for this possibility.

Any Lesotho index is likely to contain a few Sesotho words or names which can create sorting problems or problems of consistency. Diacritics are illustrated by the name 'Mantšebô, which conforms to the standard 1906 Sesotho orthography used in Lesotho,
although in South African Sesotho orthography would be written *Mmantshebo*. The *ś* provides no problem, because computer sorting usually assigns it to a position immediately after *ś*. However the double M – written ‘*M*’ – will consign such words to the very front of any alphabetical listing whereas they are normally to be sought alphabetically under M. In practice, removal of the initial diacritic before sorting, and restoring it afterwards has been used to achieve the expected alphabetical sequence. The same remarks apply to the double N – written ‘*N*’ – which is of rather rarer occurrence.

Place names constitute another problem. A place may be called *Ha Ramabanta* which is equivalent to ‘Ramabanta’s place’, usually written ‘Ramabanta’s’ in English, but in many cases shortened to ‘Ramabanta’. In such cases, the indexing word is taken to be *Ramabanta, Ha* or *Ramabanta*, if this seems to be the commonest form in use. The one exception to this is the best-known rock paintings site in Lesotho, *Ha Baroana*, which is not a village name, but means ‘place of the little Bushmen’. This name is never found in any other form, and is therefore indexed under H not B.

**The Future**

*The Lesotho annotated bibliography* has a rather precarious future, because of its creation through individual efforts. Even if it had been an officially sponsored activity it is by no means certain that it might have endured as long, given the chequered, indeed rather sad history of such institutions as the National Library, National Archives and National Museum in Lesotho. The bibliography’s usefulness is not in doubt, because sales of hard copies to individuals and libraries are steady, and the electronic database is searched, despite a fee, by many persons undertaking research. In many cases it facilitates a literature search, at least in relation to Lesotho items, for almost any research topic, although it very often provides only a single known location for any particular item, the place where it was in fact seen, and this is often the compiler’s own ‘House 9’ collection. Obviously additional locations ought to be sought, a time-consuming exercise, and the very many items not yet entered need to be added. The problem is that the rate at which new literature, particularly in the ‘grey literature’ category, is emerging makes it increasingly difficult to keep the database reasonably comprehensive. It currently has strengths in subject areas where most documents are included, and weaknesses in subject areas where items, although often collected and sitting in ‘pending’ boxes, may at this point be as little as 10 per cent entered.

No simple solution in relation to the future of the bibliography is offered at present, but it is noted that for the present writer, the bibliography has been a hobby (albeit one which has become almost an obsession) and has had to take its place alongside many other activities. He has now reached retirement age, and finding persons interested in bibliographic work able to write appropriate annotations is not easy, the more so when the rewards are not monetary but rather in the realm of intellectual satisfaction.


