
Using Frames in Special-Field Lexicography: An Ethnomusicological Case Study*

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Abstract: The distinction between encyclopedic and semantic knowledge is well-known. The influential German metalexigrapher, Wiegand, also identifies a third kind of knowledge, which he calls special-field object-constituting knowledge. It is precisely this kind of knowledge users need in order to know to which object a particular lexical item refers, otherwise they cannot use that lexical item referentially in communication.

This article focuses on Konerding and Wiegand's (1994) discussion of frames and on their suggestions with regard to frame-based dictionary articles. Certain types of information are of great importance if the object-constituting knowledge is to be conveyed in dictionary articles. The article also investigates the possibilities of using frames in special-field lexicography. A sample article from an ethnomusicological database is presented in which the frame for artefacts, as worked out by Konerding, is applied and discussed. By means of frames, lexicographers can systematically ensure that the special-field object-constituting knowledge is indeed present in the articles they write.

Keywords: SPECIAL-FIELD LEXICOGRAPHY, FRAME THEORY, FRAMES, LEARNER'S DICTIONARIES, SPECIAL-FIELD ENCYCLOPEDIA DICTIONARIES, SPECIAL-FIELD OBJECT-CONSTITUTING MEANING KNOWLEDGE, MATRIX FRAMES, MINIMAL FRAMES, ITEM CLASSES, PREDICATE CLASSES

Opsomming: Die gebruik van rame in vakensiklopediese leksikografie: 'n Etnomusikologiese gevallestudie. Die onderskeid tussen ensiklopediese en semantiese kennis is welbekend. Die invloedryke Duitse metaleksikograaf, Wiegand, identifiseer ook 'n derde tipe kennis, wat hy vakensiklopediese objek-konstitutiewe kennis noem. Dit is juis hierdie soort kennis wat gebruikers nodig het om te weet na watter objek 'n bepaalde leksikale item verwys, anders kan hulle nie die leksikale item in 'n verwysende funksie in kommunikasie gebruik nie.

Hierdie artikel fokus op Konerding en Wiegand (1994) se bespreking van rame en hulle voorstelle in verband met raam-gebaseerde woordeboekartikels. Sekere tipes inligting is van uiterste belang om objek-konstitutiewe kennis in woordeboekartikels weer te gee. Die artikel ondersoek ook die moontlikhede om rame in vakleksikografie te gebruik. 'n Voorbeeldartikel uit 'n etnomusikologiese databasis word aangebied, waarin die raam vir artefakte, soos uitgewerk deur Koner-

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ding; toegepas en bespreek word. Deur middel van rame kan leksikograwe op 'n sistematiese wyse seker maak dat die objek-konstitutiewe kennis inderdaad in die artikels wat hulle skryf, aanwesig is.

Sleutelwoorde: VAKLEKSIKOGRAFIE, RAAMTEORIE, RAME, AANLEERDERWOORDE-BOEKE, VAKENSIKLOPEDIËSE WOORDEBOEKE, VAKENSIKLOPEDIËSE OBJEK-KONSTITUTIEWE BETEKENISKENNIS, MATRIKSRAME, MINIMALE RAME, ITEMKLASSE, PREDIKAAATKLASSE

1. Introduction

Sometimes when speakers look up special-field terms, be it in general monolingual dictionaries, special-field dictionaries or in dictionaries for special purposes, they need to know to which object a particular expression refers, otherwise they are unable to use the expression or lexical item referentially during communication. This article discusses Konerding and Wiegand's suggestions on frame-based dictionary articles to meet this specific user need, and a sample article from an electronic ethnomusicological database being compiled at the University of Stellenbosch¹ is shown.

The electronic database can be classified as a hybrid, because it contains features of a special-field encyclopedic dictionary² and a learner's dictionary. Pilegaard (1994: 211) uses the expression "encyclopedic bilingual LSP dictionary"³, because in his view (Pilegaard 1994: 212), users (especially students) need explanations of the meaning of lexical items as well as illustrations of their use.⁴ Users need "subject information and language information", as he (Pilegaard 1994: 215) puts it. If there is no subject information, "it seriously restricts the potential use of the dictionary". Pilegaard (1994: 217) proceeds: "This problem is particularly acute where the user is short of time or does not have competent primary sources of information at hand; a situation which is the rule rather than the exception both for scholars, students and professionals working with LSP communication."

2. Wiegand's typology of special-field dictionaries

In his discussion of special-field lexicography, it seems wrong for Wiegand (1988: 742) that one would try to distinguish between language dictionaries and encyclopedias simply on the basis of the distinction between semantic items and encyclopedic items that the articles might contain. He (Wiegand 1988: 743) claims that researchers have problems with such a distinction, because they only approach it from a linguistic or philological angle. Wiegand suggests it would be more fruitful if one would approach the classification problem from the point of view of social action theory or communication theory. He therefore pleads for a classification of reference works according to their genuine

purposes. The genuine purposes of reference works are that they can be used to obtain information on the object (for example, the language) from the lexicographical data in them.⁵

Wiegand (1994: 105) defines the genuine purpose of a special-field dictionary by stating that it is an object used to obtain information that may be considered as special-field knowledge. He (Wiegand 1988: 745) notes that one could classify all reference works as belonging to two classes, either to class K1 or class K2. Class K1 may be the class of linguistic objects, and class K2 the class of nonlinguistic objects or "things" ("Sachen"). If reference works are classified as classes K'1, 2, 3, etc., class K'1 is the class of all reference works with a genuine language-lexicographical purpose, whereas class K'2 is the class of all reference works with a genuine subject-lexicographical purpose. A genuine language-lexicographical purpose exists when a potential user may obtain information about a linguistic object from the lexicographical data of class K'1.⁶ A genuine subject-lexicographical purpose exists when a potential user may obtain information about an object or "thing" ("Sache") from the lexicographical data of class K'2.⁷

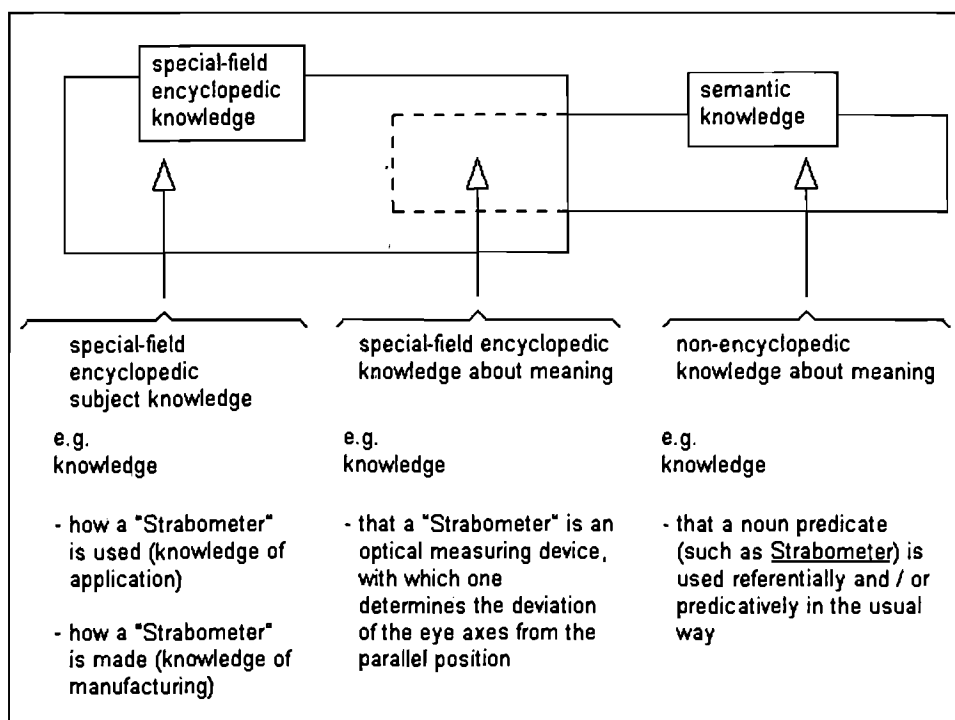
In Wiegand's (1988: 746-747) view there is, however, another possibility which lies between these two distinct classes of reference works. Instead of distinguishing only between semantic data on the one hand and encyclopedic data on the other hand, Wiegand (1994: 125) also distinguishes a third type of data. He hopes that this would contribute to a better understanding of the article structures of special-field dictionaries.

This third possibility can be found in the so-called "Allbuch" in which language lexicography and subject lexicography combine.⁸ Wiegand (1988: 747) argues that this type of reference work forms a class of its own, distinct from language lexicography and subject lexicography. It is now possible to present a typology with three types of reference works, namely: (i) special-field language dictionaries, (ii) special-field subject dictionaries, and (iii) "Allbücher" or encyclopedic dictionaries.⁹ Although these three types will not be discussed in detail, some important distinctions by Wiegand are however highlighted, because of their relevance for this article.

In order to make a finer distinction between linguistic and encyclopedic knowledge, Wiegand (1994: 114-115) explains how a medical student, Oskar, might consult a medical dictionary to find out what the expression *Strabometer* means. Oskar does not know the referential and predication rules for the expression *Strabometer*. This means that Oskar does not know how to use the expression, and therefore does not know the meaning of *Strabometer*. Oskar has a knowledge gap, which can be regarded as a special-field lexical knowledge gap ("fachlexikalische Wissenslücke"). This type of gap does not necessarily imply a special-field knowledge gap of the object ("fachliche Sachkenntnis-lücke") as well, but one may assume that this is the case. Wiegand (1994: 114) explains that according to the latest psycholinguistic perceptions, one may assume that adult native speakers always link the internal representation of

subject knowledge to the internal representation of an expression when an internal representation of the subject knowledge indeed exists. In simple terms this means that if one does not know to which object a particular expression refers, one cannot use the expression referentially or predicatively in a usual way.

Wiegand (1994) therefore not only distinguishes between semantic knowledge or nonencyclopediaic meaning knowledge ("nichtenzklopädisches Bedeutungswissen") and subject knowledge or special-field encyclopediaic subject knowledge ("fachenzklopädisches Sachwissen"), but also identifies a third type of knowledge. This he calls special-field encyclopediaic object-constituting meaning knowledge ("fachenzklopädisches gegenstandskonstitutives Bedeutungswissen"). It is object-constituting because it constitutes the referential object to which the expression refers and enables speakers to refer to the object in written or spoken texts. The following figure illustrates this:



According to Wiegand (1994: 116), this last type of knowledge can be described as knowledge about meaning which enables speakers to know how linguistically to deal with a particular referential lexical expression in a special field, that refers to some object. If one acquires this knowledge from a text as in Oskar's case, this knowledge has no specific visual component. This is why

Wiegand (1994: 116) adds that illustrations in special-field dictionaries are useful.

Wiegand (1994: 118) suggests that all items with meaning paraphrases in dictionary articles of special-field language dictionaries are simultaneously semantic and special-field encyclopedic data. Therefore, they are called semantic special-field encyclopedic data ("semantische-fachenzyklopädische Daten"). From this type of data a user can obtain the special-field object-constituting meaning knowledge belonging to the lemma sign.

In view of his characterisation of the object-constituting meaning knowledge, Wiegand (1994: 125) claims that one can now allocate sets of classes of items with the same genuine purpose to any of these three classes of data. Consequently, one is in the position to plan microstructure programmes for specific types of special-field dictionaries, in which one can treat the different types of dictionary articles in accordance with the dictionary type. Such microstructure programmes can be constructed by means of so-called frames, which Wiegand has researched in detail.¹⁰

3. The frame theory applied to lexicography

According to Wegner (1989: 893), frame theory developed in the domain of artificial intelligence. Its subject domain is the reconstructive explanation of cognitive processes by means of computer simulation. Programmes are developed which can produce utterances, answer questions with regard to the contents of texts, summarise texts or determine the theme of texts. Researchers in text linguistics and lexical semantics who developed the frame theory are, amongst others, C.J. Fillmore and M. Minsky. Konerding (1993: 21) refers to Minsky¹¹ who describes a frame as "a *data structure* for representing a stereotyped situation":

It is a *collection of questions* to be asked about a hypothetical situation. It can be viewed as an *organized matrix* of slots for given states of affairs, assigned with specific terminal values on the basis of the particular states of affairs to which the frame is applied.

Konerding's (1993) systematic and scientific study with regard to the use of frame theory in lexicography accounts for the representation of stereotypical everyday knowledge that dictionary users need when consulting dictionaries. Apart from Hellwig's¹² work on text theory, Konerding also applied Minsky's suggestions in order to establish the predicates which can be employed to describe nouns used in their usual senses. In addition, the study by Balmer und Brennenstuhl¹³ proved to be invaluable in the determination of predicate schemes.

Even though Konerding's examples, which are all nouns, come from general monolingual dictionaries, Konerding and Wiegand (1994: 138) claim that

the results apply to special-field dictionaries as well. They (Konerding and Wiegand 1994: 111-112) also state that, because of the scientific method used in determining the frames, learner's dictionaries can also use these frames to convey semantic knowledge of nouns in a systematic way.

Konerding worked out a typology and also tested this typology by means of computer research. The following types of nouns were identified for standard contemporary German and consequently used in the research: (i) concrete object, subclassified as natural object and artefact, (ii) organism, (iii) person/actor, (iv) event, (v) action/interaction/communication, (vi) institution/social group, (vii) (part of the) environment (of people), (viii) part/piece, (ix) whole/collection/entirety, and (x) condition/feature (of).

For each of these types of nouns, so-called matrix frames have been drawn up by Konerding and tested on several existing dictionary articles. These frames were constructed by means of several questions,¹⁴ which were grouped together according to themes. Konerding then also tested these frames on nominal phrases and different types of texts in which nouns were present. Konerding and Wiegand (1994: 106) claim that the results of Konerding's method concur with the latest results of cognitive psychology.

Out of the matrix frames, Konerding developed so-called minimal frames, which can be used in lexicography. This article focuses only on one of these frames, namely, the frame for artefacts, and applies it to a term from African music in par. 4.

According to Konerding and Wiegand (1994: 118-119), it is precisely the object-constituting meaning knowledge ("gegenstandskonstitutives Bedeutungs-wissen") that users need in order to be able to refer to objects in communicative situations, which can be determined and presented by means of frames. Konerding (1993: 405-410) lists several predicate classes which can be used to describe the object-constituting knowledge of nouns in the class artefacts. Not all of these, however, contribute to convey the object-constituting meaning knowledge to users, according to Konerding and Wiegand (1994: 121-122). Some of them contribute to convey the so-called special-field encyclopedic knowledge (Wiegand 1994: 117).

In par. 4 below, Konerding's predicate classes are adapted to suit the needs of the ethnomusicological database under discussion. Some of the classes have, for example, been grouped together for the sake of a logical flow of information. In addition, this list of predicate classes by Konerding was compared to De Vale's (1990) framework, which deals with all the aspects which she considers important when one wants to classify musical instruments within the field of organology. There is a remarkable resemblance. The predicate classes which, according to Konerding and Wiegand (1994: 121-122), contribute to the object-constituting meaning knowledge, are marked with an asterisk (*). The numbers 1-5 indicate the groups of questions Konerding (1993) used before establishing the predicate classes.

a. Constitutive relationships and features of the object:

1. predicates characterising the form, colour and measurements of the object (*);
 - predicates characterising additional discernible features of the object (*);
2. predicates characterising the hierarchically superordinate whole of which the object is an ingredient/part;
 - predicates characterising the essential parts of the object (*);
 - predicates characterising those objects which are used in the production phase of the object or parts of the object;
 - predicates characterising the arrangement, functional roles and special features of parts of the object;
 - predicates characterising the features of taking the object apart;
 - predicates characterising the applicability of the features of the object; and
 - predicates characterising other exceptional features (*).
- b. Phases of existence and distribution:
3. predicates characterising the conditions under which the object originates/the phases of production of the object;
 - predicates characterising the conditions under which the object originates/the phases of production and the later phases of existence of the object;
 - predicates characterising the distribution of the object; and
 - predicates characterising the availability of the object.
- c. The meaning of the object for people:
 - other names for the object;
4. predicates characterising activities in which the object functions/plays a role (*);
 - predicates characterising roles of the object in such activities (*);
 - predicates characterising the meaning of the object for the people using it;
 - predicates characterising other products of people which are used in the object;
5. predicates characterising similar objects, the differences between such objects and general categories within which the objects falls (*);
 - predicates characterising theories in which the object plays a role; and
 - predicates characterising information which has been published or made available about the object.

Wiegand (1992: 261-265) discusses three options for the presentation of predicate classes as part of a dictionary article.

3.1. The first option

Within the framework of Wiegand's lexicographical theory (Konerding and Wiegand 1994: 125), each of these predicate classes corresponds to a certain

item class ("Angabeklasse").¹⁵ In the examples Konerding and Wiegand (1994: 126) studied there are fewer item classes than predicate classes, because some predicate classes are grouped together. They (Konerding and Wiegand 1994: 139) suggest that ideally, every predicate class should receive its own lexicographical item class, especially in the case of, for example, learner's dictionaries. From a didactical point of view, the measure to which redundancy will occur in such cases, will actually be desirable.

For the noun class artefacts Konerding and Wiegand (1994: 127) recommend, also for the sake of computerising the dictionary, at least the item classes representing the following types of knowledge: (i) class of items concerning the knowledge of categories, (ii) class of items concerning the knowledge of functions, (iii) class of items concerning the knowledge of form and components, and (iv) class of items concerning the knowledge of other features.

3.2. The second option

If one wants to compile a learner's dictionary, it is recommended (Wiegand 1992: 263, and Konerding and Wiegand 1994: 137) that one formulate the parts of dictionary articles in which the object-constituting meaning knowledge appears, without too much text condensation.¹⁶ On the other hand, to obtain standardised condensed dictionary articles, one should formulate rules for lexicographers which prevent them from formulating too freely. These rules can also be based on frames.¹⁷

3.3. The third option

Regarding Wiegand's (1992: 264) interpretation, recent research in cognitive psychology and semiotics indicates that it might be useful to incorporate illustrations into the texts to facilitate the understanding of object-constituting knowledge by users. There are two ways of illustration: by means of language (illustrative examples) and by means of pictures or graphs.

3.4. Concluding remarks on the options

Wiegand (1992: 264) claims that one can formulate dictionary articles which contain items with a meaning paraphrase on the basis of frames. He points out that minimal frames do not distinguish clearly between factual encyclopedic meaning knowledge and object-constituting knowledge in all cases. He adds that this is not always necessary in dictionary articles which aim at conveying semantic knowledge.¹⁸ One should, however, always make sure which predicate classes should be taken into account when conveying object-constituting meaning knowledge. Wiegand (1992: 265) contends one could also systematically form competence examples¹⁹ which describe the use of the lemma sign as

well as further knowledge about the reference object on the basis of these predicate classes. In addition, one could produce texts in which the object-constituting meaning knowledge is systematically supplemented by factual encyclopedic meaning knowledge.

Frame-based dictionary articles have the advantage over traditional dictionary articles in that they are not only formulated on the basis of the individual lexicographer's language or subject competence, on his/her idiosyncratic ways of formulating and writing texts, and on relatively arbitrary descriptive traditions. Rather, the descriptive methods which are used can be regarded as objective and scientifically sound (Konerding and Wiegand 1994: 146).

4. Dictionary articles in the South African ethnomusicological database

In much the same manner as Kammerer's (1999: 232-236, 252-253) exposition of a frame-based dictionary article, a sample article from the ethnomusicological database, that of *uhadi*, is presented and discussed.

It is important to note that Bergenholtz, Tarp and Wiegand (1999: 1780) found encyclopedic data among various types of articles in existing special-field dictionaries. Sometimes a single article contains encyclopedic information, but single articles may also contain cross-references to so-called synoptic articles ("Synopseartikel"). The latter type of article may contain special-field encyclopedic subject knowledge and convey data which does not only refer to the lemma sign of the particular synoptic article, but which is also applicable to the lemma signs of the article(s) cross-referring to it. In addition, encyclopedic data can also be found in appendices such as an introduction to the special field, an overview of the special field, or even grammatical appendices, or illustrations of important items in the special field such as historical tables (Bergenholtz, Tarp and Wiegand 1999: 1787). The advantages of these appendices are that special-field issues can be dealt with in a coherent way and repetition of data in single articles can be avoided. A reference system to guide the user to these appendices is of course necessary.

This type of reference system is also built in in the database under discussion. It is self-evident that the predicate classes which account for the special-field object-constituting meaning knowledge of artefacts, as identified by Konerding and Wiegand (1994: 122), will have to be present in the article itself and not in the synoptic article or the appendices.

In the following table, the suggested information types of the article *uhadi* are listed. The predicate classes of Konerding's frame are presented in the left column, and the actual data of the database in the right column. The predicate classes necessary to convey object-constituting meaning, according to Konerding and Wiegand (1994: 121-122), are marked by an asterisk (*). Apart from the information from the predicate classes of the frame for artefacts, some information types such as items containing information of a grammatical or linguistic nature, are added.

| PREDICATE CLASSES | DATA |
|--|---|
| Lemma sign | uhadi |
| Language of origin | Xhosa |
| Pronunciation | (In the electronic database, the pronunciation is supplied by a sound file.) |
| Translation equivalent | musical bow |
| Short everyday description in the sense of Wiegand (1992: 235) | The uhadi is a stringed instrument made of a wooden bow and a metal string, with a calabash resonator attached to the bow. |
| Other names for the object | Although there may be small differences, the instrument has the following names in different cultures: Tswana: <i>segwana</i> Tsonga: <i>dende</i> Northern Sotho: <i>sekgapa</i> Swazi: <i>ligubu</i> Zulu: <i>ugubu</i> |
| Etymological information | The Xhosa also use the word <i>i-gubu</i> for the calabash resonator (just like the Zulu), but the instrument is called <i>uhadi</i> , which may be compared with <i>umhadi</i> ("a deep pit"). |
| (*) Form, colour and measurements (*) Essential parts of the object Conditions under which the object originates/phases of production and later phases Objects used in the production phase Arrangement, functional roles and special features of the parts of the object Features of dismantling the object Other products of people which are used in the object | <ol style="list-style-type: none"> 1. The bow of the uhadi used to be made of wood of the <i>umbhangandhlela</i>, a small tree with a yellowish flower. The Thembu Xhosa in the Lumko district use the branches of the <i>ulizi</i> tree. Nowadays any type of suitable wood is used. The shaft of the bow is called <i>injikwe</i> or <i>intonga</i>. 2. The string is about 100-115 cm long. The string used to be made of twisted oxsinew, or of cowhair or horsehair. Nowadays it is made of brass wire (<i>icingo</i>), generally taken from an old bracelet. The string is called <i>usinga</i> or sometimes <i>ijijo</i>. 3. The beater is a piece of <i>dobo</i> ("coarse grass") or <i>umcinga</i> ("wheat straw"). The beater is called <i>umcinga</i>. 4. The resonator is a small or medium size calabash. The resonator is called <i>iselwa</i>. 5. Between the calabash and the bow, a piece of cloth is wound. <p>(NOTE: The text is accompanied by a sketch of the uhadi and the animation</p> |

| | |
|--|---|
| | <p>makes it possible for the user to see how the bow is played and to hear what it sounds like. The different parts are also shown clearly.)</p> |
| <p>(*) Additional discernible features</p> | <p>To play the uhadi, it is held to the front of the player, with the opening of the calabash towards her. The string is struck with the beater. The overtones can be heard clearly. Then the calabash is pressed against the player's chest, and struck again. This time the higher overtones will be damped.</p> <p>The player alternatively plays the open string and then stops the string between her thumb and forefinger. This results in two <i>fundamental tones</i> which can be achieved, and therefore two sets of overtones are possible on the uhadi.</p> <p>(NOTE: Here a video clip is added showing a woman playing the uhadi. In addition, a button will be available where the user can go to a synoptic article on <i>polyphony</i> in Xhosa music. This article will explain the use of polyphony in Xhosa music, and can be accessed from other articles such as <i>umqangi</i>, a mouth bow, also using overtones and polyphony techniques.)</p> |
| <p>(*) Other exceptional features; Applicability of the features</p> | <p>When the uhadi is played, <i>overtones</i> can be heard. Some players play more than one rhythm at a time and some play the instrument while singing. Some even dance while they are singing and playing. Tuning of the instrument is important for the overtones to sound clearly.</p> <p>(NOTE: Here the term <i>overtones</i> will be a link which acts as cross-reference to the synoptic article <i>overtones</i>. In this synoptic article, theoretical aspects of the Xhosa use of overtones are discussed and notation examples are shown to illustrate the explanation. This information will also be accessed from other articles such as <i>umngqokolo</i>, a Xhosa singing style which makes use of overtone singing.)</p> |

| | |
|--|---|
| Distribution of the object Availability of the object | (Here a window opens to an appendix, which shows the distribution of the instrument on a map of South Africa.) |
| (*) Activities in which the object functions/plays a role (*) Role(s) of the object in such activities Meaning of the object for the people using it | The uhadi is usually played by women or girls, generally after the evening meal, rarely in daytime. It is used for accompanying the voice and the player usually sits while performing. It is preferable that the calabash comes in direct contact with the skin of the player in order for the overtones to sound more clearly. |
| (*) Similar objects/Classification of the object/Superordinate whole of which the object is a part | (NOTE: Here the user is referred to an appendix in which all Xhosa instruments are listed according to the Hornbostel-Sachs classification system to see the relationship with other stringed instruments within Xhosa culture, but also within an international classification system.) |
| Theories in which the object plays a role | |
| Information published about the object: citations and references | Bibliography: 1. Dargie, D. 1987. <i>Techniques of Xhosa Music</i> . Unpublished Ph.D. thesis. Grahamstown: Rhodes University. 2. Dargie, D. 1988. <i>Xhosa Music</i> . Cape Town: D. Philip. 3. Hansen, D.D. 1981. <i>The Music of the Xhosa-speaking People</i> . Unpublished Ph.D. thesis. Johannesburg: University of the Witwatersrand. 4. Kirby, P.R. 1968. <i>The Musical Instruments of the Native Races of South Africa</i> . Johannesburg: Wits University Press. |

The following notes are important with regard to the article:

- (a) Cross-references to synoptic articles dealing with topics such as (i) the traditional ways of learning to perform, by observation and imitation, and (ii) the origin of all musical bows (hunting bows) will also be possible.
- (b) The database is aimed at high school pupils. It is therefore important to make use of nonstandardised articles and to use "everyday language" in the descriptions. Every technical term or foreign word that is used, will

eventually be accessible in its own right as a lemma so that the user may become acquainted with its meaning and use.

- (c) An attempt is made here to present the data in a linear way. Because of the hypertext nature of the database, the data types are of course accessible in different ways, from different angles. For example, users can access data about the *uhadi* by means of the list of topics, which would be an index in an alphabetical arrangement. They could also access the article by means of a path which runs through the instrument classification (the *uhadi* is part of the Xhosa stringed instruments). In addition, users could access *uhadi* through other articles on stringed instruments, through synoptic articles, such as the ones about the use of overtones, or polyphony, or appendices. Bergenholtz, Tarp and Wiegand (1999: 1788) claim that the user-friendliness of the lexicographical work is much better when users not only access appendices through single articles, but also access single articles through appendices. This can be done by adding buttons called "related articles" to the page of the appendix and listing the single articles there.
- (d) No attempt is made to present the dictionary article in a tree-structured graph as Wiegand usually does, because not all predicate classes have received lexicographical item classes yet. This still has to be done in further research.
- (e) This database is still in its initial stages. It is planned that once a sufficient number of articles has been completely worked out, the database will be tested and scrutinised by potential users for their commentary and feedback. This will be done by means of user protocols (Ripfel 1990, and Ripfel and Wiegand 1986).

In conclusion: In the ethnomusicological database an attempt is made to account for object-constituting meaning knowledge as well as semantic knowledge and special-field encyclopedic knowledge. Because Konerding has ascertained that his system of frames is viable, lexicographers will be wise to take into account these frames in the planning of new dictionaries for special purposes, learner's dictionaries, special-field dictionaries and special-field encyclopedic dictionaries. Much work is still to be done — lemmas of all the noun classes, as well as other types of word classes, will have to be worked on.

Notes

1. Cf. Smit (1997) for a general exposition of Wiegand's metalexical approach. The present article explores the application of frames to special-field lexicography in more detail.
2. Cf. Wiegand (1994: 122) for a description of this type of lexicographical work.

3. Languages for Special Purposes.
4. Wiegand (1984: 22) uses the so-called "theory of meaning-as-use", in which the meaning of an expression is determined by the "usual" rule for the use of that particular expression. Therefore, to know the meaning of an expression, is to know "how to act linguistically with it" (Wiegand 1984: 22). Wiegand's (1992: 237-243) well-known discussion of the word "Kayak" illustrates this issue.
5. Wiegand (1988: 744, note 23) illustrates this as follows: the genuine purpose of a pronunciation dictionary can be identified by its use to obtain information on pronunciation by means of the items in it. Consequently, the users fulfil the goals of the dictionary. A pronunciation dictionary has only one genuine purpose, and therefore belongs to the type of mono-informative dictionaries.
6. Wiegand (1988: 766) explains that linguistic items in a dictionary article are, for example, phonetic items, morphological items on inflection, items on gender, items on parts of speech, items on syllabification, items on verb valency, and many more.
7. According to Wiegand (1988: 767), encyclopedic items in a dictionary article convey information to the user about the object to which one refers by means of the lemma sign in a usual context, as well as knowledge about the social context within which the object is used. He (Wiegand 1988: 768, note 40) further notes that users can also often derive encyclopedic knowledge about objects from lexicographical examples.
8. It is difficult to find an English translation for "Allbuch". According to Wiegand, the French use an expression equivalent to "encyclopedic dictionary". For lack of a better term, this expression is also used in this article to refer to what Wiegand denotes as "Allbuch".
9. Also, cf. Wiegand (1998: 47-58) for a discussion of these three types of special-field dictionaries.
10. Cf. Wiegand (1985b: 86, 1989: 573) and Konerding and Wiegand (1994).
11. Cf., for example, Minsky, M. A Framework for Representing Knowledge. Haugeland, John (Ed.). 1997. *Mind Design II. Philosophy, Psychology, Artificial Intelligence*: 111-142. Cambridge MA / London.
12. Konerding's (1993: 147ff) approach is based, amongst others, on Hellwig's text theory, in which a set of questions can be used to determine the so-called "relevant silent knowledge" ("relevantes stillschweigendes Wissen") (Konerding and Wiegand 1994: 105) that can also be characterised as "object-constituting meaning knowledge" (Konerding and Wiegand 1994: 123). The works by Hellwig to which Wiegand and Konerding (1994: 105) refer are: (a) Hellwig, P. 1984a. Grundzüge einer Theorie des Textzusammenhangs. Rothkegel, A. und B. Sandig (Eds.). *Text — Textsorten — Semantik: Linguistische Modelle und maschinelle Verfahren*: 51-79. Hamburg, and (b) Hellwig, P. 1984b. Titulus oder Über den Zusammenhang von Titeln und Texten. *Zeitschrift für Germanistische Linguistik* 12: 1-20.
13. Balmer, T. and W. Brennenstuhl 1986. *Deutsche Verben: Eine sprachanalytische Untersuchung des deutschen Verbwortschatzes*. Tübingen.
14. Cf. Wiegand (1992: 257-258) for examples of these questions.
15. Cf. also Wiegand (1992: 253-267) for a detailed discussion on how one allocates item classes to specific predicate classes.
16. Wiegand (1977: 104-110) gives an excellent example of information which might be included for the word *Weberei* ("weaver's trade"). Historical facts about the weaver's trade could be

included as well as special vocabulary used in the trade, literature on the trade, etc. One of his ideas is that one could include "lexicographical narration", in which a systematic description could be given of the construction of a weaver's loom, together with an illustration.

17. Cf. Wiegand (1992: 263-264) for an example of this procedure.
18. Cf. also Konerding and Wiegand (1994: 138).
19. These would probably be illustrative examples to enhance linguistic competence.

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