

Pieter Harteveld
Bureau of the WAT, Stellenbosch, South Africa

The Computerization of the Lexicographical Processes at the Bureau of the Woordeboek van die Afrikaanse Taal (WAT)

Abstract

In August 1987 the Bureau of the WAT started computerizing its lexicographical processes. In the first phase (1987–1989) the computer was mainly introduced as a word processor for creating manuscript. The second phase (from 1990 onwards) entails the adaptation of software to editorial needs and the development of an electronic language database from 3,5 million unedited records of word material on card as well as from the yet untagged text of eight older volumes of the WAT. A computer field–structure for the tagging of this text, the on–screen compilation of all new volumes and the multipurpose extraction of information from the resulting running–text database are described. Database building, text editing and internal layout and printing are now well computerized and together form a continuous network–linked process.

1. Background

Since its commencement in 1926, the Bureau of the Woordeboek van die Afrikaanse Taal (WAT) collected, processed and published all its material by hand. This was the cause of much repetitive work and slow progress with the *Woordeboek van die Afrikaanse Taal (WAT)*, an overall–descriptive dictionary of which the ninth volume (L) was published in March 1994 (Van Schalkwyk 1994).

The Bureau has dealt with its progress problems in several ways, of which only the computerization of its lexicographical processes will be treated in this presentation.

Although better progress has been the Bureau's main concern, the following considerations also played a role in the decision to computerize:

- (i) The high production costs of the WAT.
- (ii) The increasingly difficult handling and storing of its expanding lexical database on card, which at present consists of 3,5 million records.
- (iii) The limited reusability of this material. The existing collection represents a large financial investment. The sooner this material is made available in an electronic database for other internal and external projects the sooner the Bureau will reap much–needed

commercial benefits from it and will be able to update it cost-effectively (Swanepoel and Morris 1988: 108).

- (iv) The additional responsibilities which were assigned to the Bureau, e.g. marketing and sales, necessitated some form of automatization in order to lighten the burden.
- (v) The Bureau's gradual course towards autonomy and financial independence.

2. Planning and implementation of phase I

For the Bureau of the WAT, which has always been a relatively small budget-driven, State-dependent organization, a project of this magnitude has serious management, personnel and financial implications. There were no funds available to complete the project in a short time span nor to buy sophisticated commercially available lexicographical computer programs. Therefore, the Bureau had to look for a cheaper option and extend the project over several years.

3. Advantages of computerization for the Bureau

Research for a report on the short- and long-term advantages of computerization and the feasibility of such a project was done (Harteveld 1988: 14–20). It included an enquiry as to the expectations and needs of the editors. The editors had very practical requests, which amounted to having direct access to an electronic lexical database in order to expedite the process of dictionary making and to eliminate routine tasks.

Also other advantages were identified, most of them being familiar to other dictionary projects (cf. Aitken 1978: 29; Jackson 1988: 236; Van Sterkenburg 1984: 115; Landau 1984: 276).

One of them was the possibility of automatically compiling smaller dictionaries to generate funds.

Another was that the period between completion of the manuscript and the publication of the dictionary could be shortened because all corrections have to be made once only – on screen. This could reduce formal proofreading to a bare minimum. Direct electronic transfer of files to a printing house or an internal DTP unit would render time-consuming handsetting unnecessary and prevent errors being made. Desktop publishing could also save considerably on printing expenses.

Furthermore, programs could be incorporated or developed to assist in the training of new editors.

4. Advantages of computerization for the dictionary user

The user will probably be in possession of the completed WAT sooner and at a lower price. The representativeness of the material included and the

overall standard of the dictionary will have improved. Other comparable dictionary projects could benefit from access to the computerized database and the availability of the *WAT* in other media, e.g. on CD-ROM disc (cf. Jackson 1988: 237; Van Sterkenburg 1992: 213).

5. Stage reached with phase I

The first phase of the computerization process, which extended from 1987 to 1989, mainly dealt with the problems of adapting to and becoming proficient with the computer. Computer application was restricted to normal word processing on commercial programs.

6. Planning and implementation of phase II

The second phase, which started in 1990 and is still in progress, mainly comprises the adaptation of programs to the editorial needs, the refinement and development of the computer system, the construction of an electronic lexical database and the optimal incorporation of the computer into the lexicographical processes. The aim of this phase is the computerization of all processes, from data capture to the final printing of the dictionary.

In the meantime, May 1989, the Bureau of the *WAT* was instructed by its Board of Control to do thorough strategic planning of all its activities. Special attention was to be given to the role of computerization in expediting the Bureau's work. This offered an ideal occasion to adjust the editorial and computerization processes to each other. Reports on this planning were brought out in the same year (Editors, Bureau of the *WAT* 1989; Harteveld and Nieuwoudt 1989).

At the end of 1989 the Human Sciences Research Counsel (HSRC), doing research in computer lexicography by means of its *LEXI* project, undertook to develop the software necessary for handling the databases of the Bureau (Alberts and Nieuwoudt 1992).

This resulted in, *inter alia*, the co-developer of the *LEXI* program being seconded by the HSRC to the Bureau for ten months. He had to adapt the program, a *dBASE IV Runtime* version, to the Bureau's needs, as well as assist the editors in using it. *LEXI* is the only locally developed program which permits direct in-house access for updating and extracting lexicographical data. It also allows for easy upgrading to more powerful programs and platforms.

An *Ethernet*-based *Novell NetWare* LAN was installed to connect all the PC's and integrate them in the computer network of the University of Stellenbosch. Hands-on hard disk storage capability amounts to about one gigabyte, with access to many gigabytes more on the main-frame of the University.

All of these tasks have been completed and the programs implemented on time and according to budget.

7. Transfer of new lexical material to DATABANK I

Since January 1990 no new citation material has been excerpted or accepted on card. It is directly encoded on computer into DATABANK I, the database for raw material. This is done with the program version *LEXI-WATI* which is also used for data processing, e.g. complex searching, sorting, displaying, updating and downloading. During trial runs on a 386 PC, *LEXI-WATI* was able to do ten searches in one second through all lemma fields of 250000 records.

8. Transfer of material in the existing card index to DATABANK I

The Bureau's biggest and most expensive computerization task is the transfer of older lexical material on three and a half million cards into DATABANK I. This has to be done by keyboarding into *LEXI-WATI*. At the moment the Bureau lacks the necessary funds and personnel to do this intensively; therefore, it has been decided to do it incrementally as work on *WAT* volume X progresses. This lexical database is calculated to reach the size of about three gigabytes.

9. Concordance of publisher's texts and DATABANK I

An additional, quantitative database or corpus of about 9 million concordanced words in context is envisaged. This will be built up by means of *WordCruncher*, an automatic indexing program, from an assortment of Afrikaans texts in electronic format obtained from a publishing house. The corpus will at first, for certain anticipated statistical purposes (cf. Summers 1993: 190), be kept separately but could later be added to DATABANK I.

10. Transfer of the completed volumes of WAT to DATABANK II

The completed and published volumes of *WAT* contain selected and verified lexical material which had never been available in electronic format. This text has now to a great extent been scanned by means of the *Hewlett Packard ScanJet* and *OmniPage 386*. It will be marked-up according to the developed *LEXI-WAT II* field structure and kept in database format in DATABANK II to facilitate searches and on-line interaction with the existing lexical database DATABANK I.

11. Editorial word processing and DATABANK II

It would have been ideal if *LEXI-WAT I* could have been used for manuscript production and editing as well (cf. Tompa and Raymond 1989: 15). As *dBASE IV* lacks a good word processing module and it would have been too cumbersome to develop one for it, the Bureau decided to do the

opposite by duplicating the field structure it had developed and using it in *MS Word*. This is the word processing program which the Bureau had been using since phase I and with which the editors had become very familiar. The course taken offers a wide scope for multidirectional development. *MS Word* also puts powerful facilities for text control and contents updating at the editors' disposal.

The field structure for volume nine of the *WAT* consists of 111 information fields, including fields for sense and other numbers as well as fields for certain information not meant to be printed in book form (cf. Meijs 1992: 144). It has been tailored to the Bureau's manifold needs. Each field starts with an opening marker and closes on an end marker, both in hidden text format. Information is typed in printable text between these markers. The structure makes use of nesting. This principle implies that one field can encompass another, which also means that the whole structure is recursive in the sense that it can be repeated in itself. Fields typically are of the following configuration:

```
<ARTICLE LEVEL 0/>
<SENSE NUMBER/><SENSE NUMBER\>
<HOMONYM NUMBER/><HOMONYM NUMBER\>
<LEMMA/><LEMMA\>
.....
<ARTICLE LEVEL 0\>
```

Although developed autonomously and not derived from SGML, the field structure of *LEXI-WAT II* (in *MS Word 5*) does work on the same principle as SGML. Like the Centre for the *New OED*, which has omitted the concept of attributes from their model of tagged text (Tompa 1990: 88), the Bureau also does not use attributes but rather nested tags, except in its ARTICLE LEVEL field, where the number '0', as can be seen above, is an attribute.

In its development of the field structure, the Bureau adhered to Darrell R. Raymond's dictum that "a structure's appropriateness is not a property of the data alone, but also of its intended use" (Tompa 1990: 85). Obviously, the Bureau's own needs enjoy priority as far as determining the contents of the database and their structuring are concerned. This priority, however, does not preclude keeping *DATABANK I* open-ended, e.g. to facilitate linguistic research.

The field structure is a dynamic one in the sense that it can easily be adapted to new needs and that editors may delete unused fields to save disc space. It also offers mainly two feasible options for building a processible database from text created within these information fields. The dictionary text (in word-processor format) can either be transferred to corresponding information fields generated in *LEXI-WAT II* (in *dBASE IV*) to constitute a true relational database, or be transformed into the format used by programs like *Pal* in *Editor's Workbench* from Open Text Systems to

constitute a true running-text database. For the latter, some adaptations of the field markers, done automatically by computer, will be necessary.

All new dictionary text produced in *LEXI-WAT II* (in *MS Word 5*) is kept in this word-processor format till the dictionary volume of which it forms part has been finally set and printed. Only then will this text be transferred to *DATABANK II*. This delay ensures that the printed text and the database text will fully correspond.

The editorial processes proceed as follows: Raw data is for the time being selected from both the citation card index and the electronic database (*DATABANK I*). Data from the latter is downloaded with full text formatting and transmitted via network onto the editor's screen in *MS Word5* from where it can be directly imported into the manuscript text. In the future, the corpus of concordanced texts could also form part of *DATABANK I*; in the meanwhile, this data will be selected and downloaded onto the editor's screen in *WordCruncher* format. The field structure, or parts thereof, can be called up by means of macros. The order of the field structure must be strictly adhered to. To form an impression of how the fully formatted text will finally be printed, the editor simply has to press a code to make the field markers in hidden text disappear from the screen. After it has gone through all the refinement processes the finished dictionary text is electronically downloaded from here to the in-house reprographic department for layout and setting.

For the latter processes, the Bureau has standardized on Advent's *3B2* DTP program. Internal printing and the preparation of camera-ready hard copy are done on a laser printer using *PostScript* fonts. Printing masters can also be played out directly on film by high-quality *PostScript* typesetting machines. Mass printing of the *WAT* is done by an external printing house.

12. Advantages of the LEXI-WAT II field structure

Working within this field structure leads to a systematic, uniform and balanced presentation of lexicographical material. This serves both the editor and the user. The former knows in what order to present the information and the latter where to find it in the article. The structure also facilitates team work. Team members can specialize in different fields of information. Also, the field structure has been found to be a better inspiration to start a day's work than a blank sheet of paper.

Once in database format, the field structure practically automatizes the extraction of fully formatted and directly printable text for the compilation of a variety of smaller satellite publications, *inter alia* pronunciation, collocation and synonym dictionaries, and even bilingual products. This facility can develop into a very useful source of additional income.

See the Addenda for a typical application of the Bureau's field structure as well as for camera-ready copy of its dictionary text.

13. Conclusion

With the publication of volume IX of the *WAT*, the point has been reached that all the lexicographical production stages, from material collection to setting, are forming one continuous in-house process. This is what the Bureau planned to achieve.

The success of any project can be determined by the extent to which the expectations or aims are fulfilled, as measured against cost and time. By this reckoning, if the internal results thus far reached are kept in mind, one could claim that the computerization project of the Bureau of the *WAT* has been successful. However, the lexicographical quality of the finished product has to be judged by its users. The first reports in this regard have been very positive.

It is expected that the computer, as no other tool, will increasingly help to expedite the completion of the *WAT*, improve its overall standard and put it on a sound financial basis.

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ADDENDA

1. The article of *leeubos* as compiled within the *LEXI-WAT II* field structure in *MS Word 5* (partially translated from the Afrikaans)

<ARTICLE LEVEL 0/>

<LEMMA/>**leeubos** [lion bush]<LEMMA\>

<SORTING LEMMA/>leeubos<SORTING LEMMA\>

<PRONUNCIATION/>[le:u'bc] <PRONUNCIATION\>

<POS/>s.nw. [noun] <POS\>

<ARTICLE LEVEL 1/>

<ARTICLE LEVEL 1 a/>

<SENSE NUMBER/> **1a** <SENSE NUMBER\>

<ALTERNATIVES/>Ook *leeubossie* [Also in the diminutive form of *lion bush*]. <ALTERNATIVES\>

<DEFINITION/>Inheemse struik, <Taxonomy/>*Zygophyllum morgsana* (fam. *Zygophyllaceae*)<Taxonomy\>, tot 1 m hoog met vlesige liggroen blare, liggeel blomme en viervlerkige doosvrugte

[Indigenous shrub, *Zygophyllum morgsana* (fam. *Zygophyllaceae*), up to 1 m high, with pale green leaves, pale yellow flowers, and four-winged capsules]; <DEFINITION\>

<SYNONYMS/>sin. *skilpadbos*; *vetbos* (minder gebruiklik) [synonyms *tortoise bush*; *fat bush* (less frequent)]. <SYNONYMS\>

<ARTICLE LEVEL 1 a\>

<ARTICLE LEVEL 1 b/>

<SENSE NUMBER/> **b** <SENSE NUMBER\>

<DEFINITION/>Inheemse wydvertakkende bos of goed gevormde boom, <Taxonomy/> *Salvadora angustifolia* (fam. *Salvadoraceae*)<Taxonomy\>, met 'n growwe vaal bas en smal blougroen of vaalgroen effens vlesige blare en ronde vruggies

[Indigenous, wide-branched shrub or well-shaped tree, *Salvadora angustifolia* (fam. *Salvadoraceae*), with a rough grey bark, narrow blueish green or greyish green, slightly succulent leaves, and small round fruit].

<DEFINITION\>

<ARTICLE LEVEL 1 b\>

<ARTICLE LEVEL 1\>

<ARTICLE LEVEL 2/>

<SENSE NUMBER/> **2** <SENSE NUMBER\>

<DEFINITION/>Enige bos waarin leeus graag hou [Any bush where lion prefer to keep]: <DEFINITION\>

<EXAMPLES/><Quotation/>Hulle (die leeus) (*soek*) *skuiling in die doringlose ruie leeubos* <Author/>(O. Pirow: <Author/><Source/>Sjangani, <Year/>1953<Year/>, 31). <Source/><Quotation/>

<Quotation/>Hoe goed het ek die haak-en-steekplate ... later leer ken! Dit was die leeubos van Ngésomit <Author/>(Sangiro: <Author/> <Source/> Simba, <Year/>1944<Year/>, 29). <Source/><Quotation/><EXAMPLES/>

<ARTICLE LEVEL 2/>

<ARTICLE LEVEL 0/>

2. The same article of *leeubos* as published in WAT IX.

leeubos [le:u'bos] s.nw.

1 a Ook *leeubossie*. Inheemse struik, *Zygodphyllum morgsana* (fam. *Zygodphyllaceae*), tot 1 m hoog met vlesige liggroen blare, liggeel blomme en viervlerkige doosvrugte; sin. *skilpadbos*; *vetbos* (minder gebruiklik).

b Inheemse wydvertakkende bos of goed gevormde boom, *Salvadora angustifolia* (fam. *Salvadoraceae*), met 'n growwe vaal bas en smal blougroen of vaalgroen effens vlesige blare en ronde vruggies.

2 Enige bos waarin leeus graag hou: *Hulle* (die leeus) (*soek*) *skuiling in die doringlose ruie leeubos* (O. Pirow: Sjangani, 1953, 31). *Hoe goed het ek die haak-en-steekplate ... later leer ken! Dit was die leeubos van Ngésomit* (Sangiro: Simba, 1944, 29).

3. A page from WAT IX as composed in Advent 3B2

L

¹L (ook *ht. l*) [el] L'e of L's, L'etjie.

1 Twaalfde letter of skryftekke v.d. Afr. alfabet en v.d. meeste verwante moderne alfabete, wat 'n stembekende sbevoelbare lateraal voorstel: In die *Romantse alfabet* verteenwoordig L 'n hoofletter en l 'n klein-letter.

2 a Weergawe v.d. letter L of l geskryf, gedruk, getik, geteken of op 'n ander manier voorgestel: Sy (*het*) ... die rooi L'e van haar klein motorjie se ruitte afgetrek (Sarie, 6 Okt. 1976, 76).

b Drukletter, stempel of ander instrument vir die reprodusie v.d. letter L of l: Die setter het die L'e met die K's laat deurmaak kaarnaak.

3 a Gesamenlike woorde of name in 'n woordeboek, alfabetiese lys, adresboek, kaartreël, e.d. wat met L of l begin: Die L bestaan baie bladsye in die groot woordeboek.

b Woord wat met L of l begin: In die woordeboek het 'n l per abuis onder die K's beland.

4 Noemer twaalf in posisie, gehalte of rang in 'n reeks wat alfabeties met A of a begin: Ons plekke is in ry l bespreek. Hy het al die vragies behalwe l reg gehad.

5 (*slegs ht.*) Iets wat die vorm v.d. letter l het: Hy luiig die pyp sodat daar 'n l in is.

¹L simbool. Die Romantse getal 50.

l afk. (*geldenheid*) (gevolg deur 'n syfer) libra (Lat.), pond: Die boukommissie (*het*) besluit om 'n prys van £25 uit te loof vir die beste plan wat ingelewer sou word vir die bou van die nuwe kerk (C.M. Bakke in Argiefj.b. 1. 1967, 278). 'n Nuwe styfpeeler is nodig (wat in Engeland sowat £500 sal kos ...) (Burg, 21 Okt. 1988, 8).

L (ook met 'n punt L.) [el] Eerste deel van afk. waarvan die vol vorm lid is, waarvan die tweede deel die afk. van 'n vereniging, instituut, komitee of raad is en waarvan elke letter afsonderlik uitgespreek word, om as te loos dat 'n betrokke persoon agter wie se naam die afkorting geskryf is, lid van dié vereniging, instituut, komitee of raad is, bv. L.F. L.F.R. L.V.; L.A.V. (ook met punte L.A.V.) Lid van die Apuleiëervereniging, LISB (ook met punte L.I.S.B.) Lid van die Instituut van Stadsbeplanners, LISS (ook met punte L.I.S.S.) Lid van die Instituut van Stads- en Streetsbeplanners, LSK (ook met punte L.S.K.) Lid van die Korporasie van Sekretarisse, LSASIS (ook met punte L.S.A.I.S.I.) Lid van die Suid-Afrikaanse Instituut van Siviele Ingenieurs.

l [el] l'e of l'a; l'etjie. KJ. van L.

l afk. (*geldenheid*) (voorsgegaan deur 'n syfer) lira; lire of lirass: 'n Bedrag van 12 500 l.

l afk. (*maatshend*) (voorsgegaan deur 'n syfer) liter: Gebruik 60 ml (4 eetlepels) deur of 30 ml (2 eetlepels) kalk per 10 l (2% gellings water) (E. Bezuidenhout: Botel, s.j., 64). Vir meganiese toediening (van outomatiese) is die volgende toerusting nodig: 'n ... spuisloophouer van ongeveer 500 l inhoud ... 'n spuisbalk met gepaste spuitstappe (C.J. Smit in Burger - Drist:

Wingerdhou, 1981, 329).

¹la [la:] a.w. (musiek) Sesde toontrap v.d. diatoniese toonaal v.d. solfaotening wat ooreensiem e.d. toon A: Do, re, me, fa, so, la, te, do.

Vgl. A 8 a.

²la [la:] nw. (*dikw. met herhaling en saam met o*) Uitroep van bewondering, verbasing, verwondering, waarakruwing, e.d.: O la, la, maar die meisie lyk mooi vanaand! O la, jy gaan tog pak bryl 'n Lal Lal ... is dit tog nie jy nie, Rian? Ek het jou nie herken nie (I.D. du Plessis: Boedda', 1948, 74).

La simbool. (*in chemiese formules*) lataan.

laaf [laef] w., gelaaf; byv. en byw. lawende,

lawend, gelaafde, gelaaf. Ook lawe.

1 a Verkwik of versterk veral met water deur die les van dopo; ook, verkwik deur koelte, 'n koeler omgewing of klimaat: Die hongeriese en moets spysig en laaf, Jousef laaf met 'n drankie. Lawende fonteinwater. Lawende koelte. = Solank as wat hy moet wag vir ... 'n uitgeruste perd, gaan hy hom eens laaf met laaf vir die onwaglike mens (B. Conradie: De Kuiten, 1945, 4). Tweemaal het die Engel / Die profeet gelaaf en hom met spys / Versterk (C.J. Langenhoven: Werke XI, 1956, 304). Met 'n w.m. bad sy vermoede liggas ... laaf (P. v. Braam: Mienen, 1925, 253). Hy (*het*) ... gelaaf met mirre en bitter syne ... teen Golgota Sy droeweg gang gestuit (W.E.G. Louw: Adam, 1949, 20). Die groter lewvoor kom klaar sodat die tuin se laafgeaande groente beryds gelaaf kan word (J. Rabie: Sterwe, 1966, 174). Voor hierdie lawende rethou te water ... per ommer verkoop (Pansonna, Nov. 1965, 5). Ruis nie ook in sandwoestyne / koelte, lawende fontein? (Ges. 29:2, 1944). Die lug was mild en sag en lou en lawend (in F. Stegmann: Operettegids, 1973, 150).

b Geseklik verkwik, versterk of vertroos: Hy laaf my stel en lei my swakke strade / In vaste spoor van sy geregtigheid (Ber. Ps. 23: 1, 1976). Die gemeente (*sit*) as 'n familie aan ... (b.d. Nagmaal), om saam deur Christus ... gespysig en gelaaf te word (J.D. du Toit: Werke VII, 1961, 243). Daarna het ons een vir een ná die allasjiese gestree om 'n buiging te maak voor die Jesusheid ... en daar was ons — gelaaf (A.M. Louw: Tier, 1981, 38). Lawende, lawende lefde se mag (J.H. Naudé: Versa, 1936, 4).

2 Uit 'n flout of swisseling probeer by- of regkry met water, vlagspoel of iets dergelike: Toe jy bykom, was ek half mal van gelak ... dat ek die een was wat jou kon help; wat jou water gegee, gelaaf en vasgou het (H. Cillie: Kinderen, 1946, 127). Ná die derigste hou sak Eiko inmekeer. Vergeefs probeer hulle hom laaf (P.C. Schoonees, vert.: Eiko, 1948, 124). Hy het ... vir Skoonloef gaan optel en in die huisie ingedra en gelak en haar woord gewas (C.J. Langenhoven: Werke V, 1956, 164).

laafmiddel [la:'fma:di] s.n.w. (verouderend) Middell waarmee iem. gelaaf kan word: Hy lyk rond en water, dog sien die nuttige laafmiddel nie in 'n sakshend nie (E.R. v. Wielligt: Vrinderburg, 1924, 34). Stuur

hom (die mediaseemester) haastig ... met wyn en laafmiddell (C.J. Langenhoven: Werke XI, 1956, 153).

Vgl. LAPENS 1.

laafnis [la:'fni:s] s.n.w., laafnisse; laafnisie (in bet. 2), (minder gebruiklik)

1 Sied LAPENS 1: Daar is nie 'n lekkerder laafnis op 'n warm dag dan 'n koppie tee nie (I. Rousseau: Soutjokolade, 1979, 2). Die gemiddelde klimaat in die somer is 'n laafnis vir die welligheidsber (K. v. Zyl in M. Scholtz: Wynland, 1969, 204). Nou is hul alreeds dood, alreeds / Maar dis die woord wat laafnis gee (Totius: Werke VIII, 1962, 495).

2 (met mv. en vkw.) Sien LAPENS 2: Die prop (v.d. halfbotellicje) word uitgetrek en weer so 'n enige ingedruk, sodat dit maklik sal wees om die laafnis by te kom (E.B. Grosskopf: Slang', 1933, 53). Stink in, man, stink in. Ná die verbrande genakel ... op die lande is dit darem 'n laafnisie (J.C. Steyn in TL, Aug. 1974, 19). Die rustigheid van die familiekring ... (is) laafnis vir sy stel (H.A. Fagan: Bylspele, 1945, 30).

¹laag [la:] s.n.w., lae; lagie.

1 Hoewelheid van 'n stof of van voorwerpe wat (min of meer) in 'n horisontale rigting oor, tussen of onder iets lê of op dié wysse deel daarvan uitmaak; ook, so iets wat nie noodwendig horisontaal lê nie, maar wat iets anders bedek, daaroor uitgesprei lê of daaroor uitgesprei is: 'n Laag grond, kalk, klip, sand, sement, poelke. 'n Laag room op die melk. 'n Dik, volle laag verf, vernis. 'n Bestermende laag. 'n Koeke wat bestaan uit verskeie lae. 'n Verpakking met 'n vorgestande laag. Metaal met 'n korrosiewerende laag. 'n Film met 'n laag magnetiese materiaal. 'n Lens met 'n sonnerende laag. Die delwer moes deur 'n dik laag klei grawe om by die gruis te kom. 'n Strooi 'n lagie skoosand oor die leemgrond (J.F. de Villiers: Laboratoriumtegn., s.j., 90). Toe ons dié oggend wakker word ... is die ... dakke van die huise ... met 'n dunnerige lagie wit bedek (Buurman, Jun. 1980, 33). Die kani (v.d. dam) waarteen die water lê, (is) met 'n dik laag beton versterk (S.P. Maude: Waters, 1949, 91). Plaas afwisselende lae brood, kaas, sout en peper en Worcesterrosen in 'n ... tertpan (Kaas, s.j., 12). Om ongebreke vertikale voet te voorkom, word driewerkstene al om die ander laag aan die begin van die muur getrukk (H.T.J. Dahms: Steenmessiel, 1951, 65). Laaghou word opgebou deur dan lae hout opmekeer te lym sodat die draad van die aangrensende lae altyd oorkruis met mekaar lê (C.B. Lategan: Handwerkteorie II, 1957, 77). Die lae materiaal (woord) opmekeer gelê ... en dan ... aanmekeergetrukk (S.A.B.S. 0101-1968, 9). Rakke wat een of twee lae (botte) elk kan neem is ideaal (Kaapet Wyde', 1962, 15). Geen beskermende lagie aekuisfaat kan ... om die sinkkorrels gevorm word nie (L.A. Prinsloo, e.a.: Nat. en Skeik. St., s.j., 482). Die moontlikheid dat daar misken aan die binneste gebruik gemak is van ander goedkoper metale en dat daar