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CONCORDANCES AND INDICES TO MIDDLE HIGH GERMAN

Kurt GÄRTNER

In their first generation, between 1938 and 1958. Middle High German (MHG) word indices were compiled by hand and published by the University of Wisconsin Press. The index makers of that time among them outstanding scholars like W.P. Lehmann and H. Weigand – were very industrious but also very modest; they did not regard a word index 'as a major achievement of independent scientific research'; for them it was simply 'an indispensable tool for investigations dealing with words, their frequency, form, meaning, and accent' (Senn and Lehmann, 1938, p. 2). In those days it took the scholar years to comcompile an index, and in some cases it involved all the members of his family who offered him practical help or, at least, moral support (cf. Valk, 1958, p. viii). The University of Wisconsin Press word indices have in fact become 'indispensable tools' because their compilers were fully aware of what authors and texts were worth their efforts as well as for whom and what purposes they were drudging. Therefore the word indices of that period are still being used widely, even by those who do not hold them in high esteem, and by others who want to replace them by better ones.

Contrasted with the index-maker in the United States between 1938 and 1958, the scholar of the Seventies working with the computer seems to be in a superior position: the index makers of today do not even have to know the alphabet or MHG; everything smacking of labor and drudgery they can leave to the machine and some typists in their departments. What still remains to be done, one might suppose, is the writing of meaningless prefaces, which cannot but betray an attitude of detachment from the text on which the concordance or index is based as well as from the principles of lexicography. 'The death of the handmade concordance'¹ seems to have brought about a loosening of the vital relation between concorder or index-maker and his text, as he does not always exactly know what sort of text he is indexing and what his products are for. Whether so harsh a judgement is justified will be proved by examining computer-generated concordances and indices to MHG published in the Seventies, and by casting a retrospective glance at the past.

The pre-electronic Wisconsin Press indices to Tristan or to the works of Wolfram von Eschenbach were purely mechanical indices; they listed all graphic forms in alphabetical order, and added line references. The first electronic index. A Word Index to the Nibelungenklage by Scholler (1966) stays within this tradition. As a basis for these indices the best and most readily available texts were chosen. Some of the Wisconsin indices, however, were fully parsed; those to Walther von der Vogelweide (Heffner and Lehmann 1940) and Minnesangs Frühling (Heffner and Petersen 1942), for example, differed fundamentally from their unparsed companions. After some experience in index-making, Heffner (1961b, Preface) admitted that his ultimate aim was a parsed index, because "one does not learn much from a purely mechanical index." In the tradition of the parsed Wisconsin indices stands Tulasiewicz's (1972) index to the Early MHG (EMHG) Kaiserchronik, which is fully parsed. That this excellent index was prepared manually, although its compiler was well aware of the possibilities provided by the computer, should remind everyone tempted to parse that - even with the help of a computer – parsing remains a long and laborious task.

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When Wisbey (1963 ff., cf. Schröder, 1969) produced his first electronic concordances to MHG in the early Sixties, the time-consuming process of parsing was abandoned in favor of generating in quick succession a number of concordances to the principal works of 12th-century German literature, making accessible without delay the lexicographical data of a relatively neglected period justified (as the success of Wisbey's concordances has shown) the choice of a fast index over a parsed one. Besides, a certain amount of context in the concordance made parsing easier for the user. To further compensate for the lack of parsing in the concordance itself. Wisbey (1969) added to his Rolandslied-Concordance a manually compiled verb-finding list which facilitated the location of all forms of a specific verb. This major step forward not only compensated for the disadvantages of an unparsed concordance, but also made the concordance useful to scholars not very familiar with the strange linguistic features of EMHG and its inconsistent spelling. Such a considerable enhancement of the concordance was achieved however, not by the computer but by a philologist, and it required a profound knowledge of lexicographical and linguistic problems.

The Rolandslied-Concordance, in more than one respect the best concordance of its type, contains in addition a reverse index and a rhyme index. The unnormalized text deliberately chosen as its basis represents the main manuscript, all deviations of which were indicated in the concordance. Indexing all the existing fragments of manuscripts also made accessible for detailed and specific lexicographical and philological research the whole transmission of a literary work. Of the same type as the Rolandslied-Concordance is a tiny volume containing concordances to the EMHG Vorauer Bücher Moses, the Altdeutsche Exodus and the Angegenge by Wells, Wisbey and Murdoch (1976). It differs from Wisbey's previous ones in being published on microfiche to reduce considerably the costs of publishing, and also to save space on bookshelves. Given the limited interest in this particular field of EMHG literature, such cheaper publishing of a concordance will undoubtedly be justified. With concordances to more important works, however, publication in book form is more convenient for the scholar.

The high standards set by the Rolandslied-Con-

cordance towards the end of the 1960s were not always maintained thereafter, mainly because some concorders and index-makers lacked sufficient training in philology and lexicography. They did not hesitate, however, to blame the computer for their failures. It is rather sad to see that some of those would-be philologists, seduced by the fashionable image of the machine, printed their utterly useless products, which revealed only the incompetence of the producer and were of little or no help to the potential user.

The difference between such works and those of quality and usefulness depends generally on two factors: the text chosen as a basis, and the degree of parsing of the aids compensating for the lack of it. Although there might sometimes be little choice of basic text, the editorial preparation of the basic text still deserves every effort (cf. Ingram and Swaim, 1972, p.v., Gärtner and Wisbey, 1974, p. 345 f., Müller, 1974 and 1976, Spechtler, 1976). It seems easier to prepare a normalized text for the computer. and it requires obviously less parsing effort or what might compensate for it, like lemmatization, crossreferences, or word-finding lists. The purely mechanical Wisconsin index to Wolfram von Eschenbach's works (Heffner, 1961a), although lacking parsing as well as cross-references, proved to be useful because it was based on the highly normalized edition by Leitzmann. A computer-generated index based on a normalized but badly prepared text (e.g., circumflexes disregarded, upper and lower case not distinguished, alphabetization mishandled) can ruin all the advantages of normalization as is shown by von der Burg's index to Stricker's Karl der Grosse (1974).

In the tradition of the unparsed Wisconsin indices stands the *Lanzelet*-Index by Kinnear and Lofmark (1972). It has been improved beyond the Wisconsin indices by the addition of cross-references whenever an uncommon compound or variant form is displaced from the normal alphabetical order. This index, which is unpretentious and modest in price (is is still available at \pounds 1.50), can be afforded by all those interested and it will certainly serve them well.

Also modest in price, but very pretentious, are two small unparsed frequency indices by Gellinek (1973, 1971): one to a collection of EMHG prose writings, presumptuously called *Häufigkeitswörterbuch zur* deutschen Prosa des 11. und 12. Jahrhunderts, and the other with a similar title. Häufigkeitswörterbuch zum Minnesang des 13. Jahrhunderts. Unlemmatized or unparsed frequency indces are not of much use when published without a concordance or at least a word-index. That to the 13th-century Minnesang, based on a small and therefore unrepresentative selection of normalized texts, reveals the author's limited knowledge of MHG when it comes to details, while the index to EMHG prose is symptomatic of his wrong attitude towards computer application in philology. This frequency index is based on some 40 prose texts with highly irregular orthography and different dialect features. The index maker did nothing to signpost this orthographical wilderness by appropriate pre-editing, cross-references or any kind of lemmatization. It is therefore difficult, or often impossible, to find out what or how many meanings are hidden behind the enigmatic graphic forms listed in this index. A frequency index to such odd and inconsistent material, if it is not to be useless, requires full lemmatization. Gellinek's frequency indices may be of some use only to those studying word-lengths by counting letters, but even they must be on their guard because the index maker does not know how to deal properly with superscripts (for detailed criticism see Gärtner, 1975a).

Neat in print, but not very useful is Anderson's (1975) Wortindex und Reimregister zu Moriz von Craûn, based on an extremely normalized edition of this novella composed around 1200, which does not bear much resemblance to the unique 16th-century manuscript preserving the text. The critical edition by Pretzel, rewritten in classical MHG spelling, is therefore not very suitable as a basis for an index (cf. Müller, 1976/1977). Anderson has added an index of rhymes but this is probably useless because the rhyme words are alphabetized from left to right. The most fundamental defect of this index is that its figures do not refer to line numbers of the text but to page numbers of the edition, the revision of which has already changed the page numbering once and undoubtedly will again. For libraries in possession of the first edition only, this index based on the third edition is therefore of no use because its page numbering differs from the third.

Before his publication of the Moriz von Craûnindex, Anderson had already published with Thomas (1973/74) an elegant and expensive two-volume Index Verborum zum Ackermann aus Böhmen, based not on one but on ten modern editions. All orthographic forms or 'glosses' - as the index-makers call them in their strange terminology – are arranged in strictly alphabetical order. As the number of modern editions shows, there has always been considerable activity in establishing a critical text of the Ackermann aus Böhmen, the most famous work of late Medieval German literature. Anderson's index will, unfortunately be of little or no use to the textual critic to whom it is obviously directed, who will base his critical text not on the readings of other textual critics but on the manuscripts themselves. Therefore, neither the textual critics nor anyone else is likely to benefit much from this index, which is basically illconceived and therefore disappointing.

The major deficiency in most of these indices is a neglect of the needs of the scholars for whom they are prepared. Better concorders or index-makers are the lexicographers, textual critics, editors and linguists who have acquired a sufficient knowledge of the computer's capability (cf. Busa, 1976). The Verskonkordanz zu den Liedern Oswalds von Wolkenstein by Jones et al. (1973) and the Verskonkordanz zu den geistlichen Liedern des Mönchs von Salzburg by Jones et al. (1975) show an appropriate awareness of philological problems neglected by Anderson. These concordances are based on editions which are close to the manuscripts, and the deviations are clearly marked. All graphic forms are alphabetically arranged, with all occurrences listed in a one-line context. All homographs are discriminated, and a sophisticated but suitable system of cross-references secures full information. The major disadvantage is that the punctuation (and in the case of the Oswald-Concordance also the umlaut) has not been preserved. After photoreproduction of extensively post-edited computer printout in upper case, the typographical quality is not always satisfactory. In any case, publishing in the 1970s an all-upper-case concordance – that dinosaur of the past (Ingram, 1974, p. 277) - is no longer justified.

Concorders and index-makers striving in various ways to compensate for the lack of parsing have turned to lemmatizing. A less demanding job, which has become a kind of password in computer-assisted lexicographic research in MHG. Even this process of bringing together under one heading the inflectional

forms and variant forms of a word requires, nevertheless, a fair amount of linguistic knowledge, and in the case of medieval vernacular texts the job can by no means be entirely left to the computer. The stranger and more inconsistent the spelling of the text, the more demanding the process. In 1974 a lemmatized Wortindex zum 1. Band des Corpus der altdeutschen Originalurkunden, published by Goebel (1974). was based on a diplomatic edition of 13th-century German charters and deeds which differ substantially in spelling and dialect. As so often, this index has grown out of a research project, and although a considerable effort has gone into it, it is nevertheless unreliable because of the countless errors in lemmatizing. Also the homographs are not discriminated but merely listed in a badly compiled appendix, the last pages of which obviously got lost on the way to the printer. The many diacritical marks are not reproduced suitably, and (of course) the computer has to take the blame for it (p. 6 *: 'Ein Computer kann aber solche diakritischen Zeichen nicht drucken'); see the devastating review by Ursula Schulze (1976).

Goebel (1975) has also produced a lemmatized index to the Lucidarius, a prose text of the 13th century. Here again he has bravely fought the difficulties of lemmatization but has succeeded only partly. Again there are too many errors in lemmatizing, some of which could have been avoided if the special glossary to the edition had been consulted. The numerous Latin words are not lemmatized but occur under their various inflectional forms. A number of other basic mistakes could also have been avoided by prior consideration of some details. This index is, nevertheless, far superior to Anderson's Moriz von Craûn-Index, with which it opens a new series of indices (see Goebel 1976). The laconic prefaces to both indices lack all the essentials about methods, programming, etc. which one usually expects from a scholarly work of this kind. These indices, although elegantly printed, could have been regarded as a rather disappointing start of a pretentious series.

After all, however, the third volume of the series, the Wortindex und Reimregister zum sogenannten Heinrich von Melk by Anderson and Goebel (1976), turned out to be an acceptable lemmatized index which had been thoroughly checked; only a few errors in lemmatizing remained undiscovered. On the whole this word-index is a reliable work of reference; so much the more regrettable is the wholly unsatisfactory crucial choice of the basic text. The indexmakers preferred the normalized edition by R. Kienast of 1946, which is out of print, to the modern edition by F. Maurer of 1970, which is much closer to the manuscript and has become the standard edition; Maurer's text was in any case a much better basis for an index. Two more objections have to be raised: first, that the differences between the only manuscript preserving Heinrich von Melk's works and the critical text by Kienast have been ignored. although the editor's readings and conjectures are clearly marked; and second, that the few Latin words have not been lemmatized. The rhyme-index, taking one third of the volume, is by no means a proper 'Reimregister' but again only an index of rhyme words alphabetized from left to right. If it could not be a proper 'Reimregister', then the needs of the scholar would have been served far better by indicating within the main index the lemma and its forms (incl. reference numbers) which occur in rhyming position; this action would have required virtually no additional space, but would have enabled the user to discover at a glance which forms occur only or mainly as rhyme words. Apart from this, the word-index itself has to be welcomed because of its reliability, although the unfortunate choice of the wrong edition will severely restrict its usefulness.

Devised as a research tool for specialists only is the Verskonkordanz zur Weingartner-Stuttgarter Liederhandschrift (Lyrikhandschrift B) by Jones et al. (1978). It is based not on an edition but on a manuscript, the text of which has been preserved as faithfully as possible. The concorders leave no doubt about their intention to present the material objectively and without any sort of interference from a lexicographer or philologist. They chose, therefore, to produce a purely mechanical concordance to all graphic forms of the manuscript; they also recorded all scribal conventions, inconsistencies, and errors. The occurrences are listed with their context as marked by the rhyming points in the manuscript; suitable reference numbers to the manuscript, authors and modern editions are placed at the left and right of an entry. The upper-case printout used for reproduction runs somewhat against the intention of the concorders, which is justified on the grounds of low cost and better readability; in 1978 this was an even

less convincing argument than in 1975. A reverse index offers guidance through the variety of scribal forms. Perhaps a concise survey of the main dialect features of the different scribes might also have been helpful, even to a specialist. Although this type of concordance is not an easy and quick means of reference, the linguist and textual critic will appreciate the way it facilitates collecting evidence which cannot be obtained from the dictionaries. Added to similar concordances to the other main Minnesang-manuscripts (see Müller, 1974 and 1978), these concordances should benefit research in Minnesang because they have to be consulted once they are on the shelves.

Another new type of concordance has been established by F.H. Bäuml and Eva-Maria Fallone (1976) in their Concordance to the Nibelungenlied, especially devised for research into the formulaic style of the classical work of German epic literature. The text, the critical edition by K. Bartsch and H. de Boor, has been extensively pre-edited with all graphic forms classified by index numbers according to the traditional system of the ten word classes. This type of classification, which has nothing to do with lemmatization, was employed for grouping together and locating all hemistichs of identical structural or syntactic patterns as defined by Parry and Lord. As there exists, however, a basic difference between word class and its syntactic functions, the pre-editing according to word classes does not always result in groups of proper syntactic patterns in the concordance. Nevertheless, this concordance with its structural pattern index is certainly of use, especially to scholars interested in stylistic features of the Nibelungenlied.

The considerable number of projects related to medieval German works (cf. Hirschmann, 1974; Hirschmann and Lenders, 1974; Lenders and Moser, 1978a and 1978b; Gärtner, 1977) shows increased activity in the field of Middle High German lexicography. One of these projects, which has been accomplished in the meantime and just published is R. Boggs's fully lemmatized concordance to the complete works of Hartmann von Aue. As not all of the works of this major author have been sufficiently explored by lexicographers, this concordance will be welcome to a fairly large community of scholars.

The concordance to Hartmann's epic works is based on the consistent editions by L. Wolff, a choice

justified by an irregular and sophisticated manuscript transmission. To save space and reduce costs, highfrequency words have been indexed only; for the same reasons and because of a concentration on semantically significant words, all personal pronouns and forms for der (der. diu. daz) have been compiled in separate indexes. Not include in the main concordance and, for various reasons indexed only, are Hartmann's lyrical works: the lemmatized index to the lyrics is based on the new edition of Minnesangs Frühling by H. Moser and H. Tervooren (Stuttgart: S. Hirzel Verlag, 1977). The 'Reimindex' to the complete works, arranged in rhyme types, does not much differ therefore from a traditional rhyme dictionary. There are also reverse indices to the lemmata of both the main concordance and the index to the lyrics. As one learns from the somewhat poor and laconic introduction, the editor's lemmatizing has undergone a thorough checking by other scholars; Boggs enjoyed also competent assistance from Paul Sappler (Tübingen) for the photocomposition of the concordance and its attractive typographical layout. The result of Boggs's efforts, very close to what a user might expect from a computer-generated research tool, will gather little dust.

Whether many concordances which are to be published in the near future will outshine their predecessors remains to be seen. While already-published ones are not always satisfactory, as I have demonstrated, there is at least one example of index-making in the field of medieval German which is superior in every respect, Sappler's (1974) indices to his edition of Heinrich Kaufringer's works. Not only the edition but also the indices were photocomposed using W. Ott's programs, a fully computerized printing technique which yielded satisfying results in layout, typographic quality and correctness. Lemmatized and classified, with lexical phrases and discontinuous parts of verbal phrases grouped together as in a dictionary, the index excludes from parsing only a few high-frequency words, and for obvious reasons a few homographs have not been discriminated. Clearly marked are conjectures and emendations of the critical text, and all important variant readings of the critical apparatus are recorded. Problems of alphabetization and the choice of appropriate lemmata have been overcome without resort to the normalized lemmata of Lexer's Mittelhochdeutsches Handwörterbuch. To further facilitate quick and easy use by those not very familiar with late medieval German, Sappler gives also an index of graphic forms similar to Wisbey's verb-finding lists. There are also a reverse index, an index of proper names, and a frequency list. Finally, for the rhymes, the volume contains not only a rhyme index arranged in types like a traditional rhyme dictionary, but also a separate index in alphabetical order (for a detailed evaluation see Gärtner 1975b).

Sappler was less interested in the method of indexmaking than in making a useful work of reference for philological research. Although he did a fair amount of programming himself, he regards it as impossible to leave everything to the computer but advocates a sensible balance between the machine and the philologist. His approach is accounted for in detail in his preface: "By using the computer in this manner, I tried to avoid some of the weaknesses of automatically produced indices, namely the restrictions on graphic forms and their purely mechanical processing. At the same time I tried to get nearer to actual dictionary making, while avoiding the immense drudgery usually required for it" (p. xxiv). Although Sappler calls his aims "modest," he has nevertheless set an example. While others have produced bad indices and have talked much about methods of index-making, he has made an index satisfying all requirements, "a thoroughly efficient means of locating reliable, accurate and full information with a minimum of difficulty" (Ingram, 1974, p. 275). To achieve success in this effort, one has to know how to make use of the computer and also what philology and lexicography are all about.

Footnotes

[1] This is the programmatic title of an article by J. Raben in *Scholarly Publishing* 1 (1969) 61-69.

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