COLVILLE-OKANAGAN DICTIONARY. Compiled by Anthony Mattina. University of Montana Occasional Papers in Linguistics, no. 5. Missoula: University of Montana, 1987. Pp. viii + 354. \$18.00 (paper).

This important work is the first modern linguistic dictionary of the Colville-Okanagan language to be published. The language name reflects the fact that this Interior Salish language is spoken in both eastern Washington and British Columbia: the cover has a useful map of the language's territory from the Colville Reservation in Washington north through the Okanagan Valley in B.C. Mattina is careful to mention that it actually is a language continuum, with some dialect differentiation still to be worked out in detail.

Acknowledgments for grant support (N.S.F. and N.E.H.), native speakers, and computer experts begin the book. A graceful introduction describes the language territory, the native speakers, and Mattina's work with them. It then discusses the written sources used, the computer processing which produced the dictionary, its organization and references. Mattina's approach is modest; he notes a number of improvements that he intends to make in a subsequent edition; the present edition is preliminary and information, additions, and corrections from speakers and others will be incorporated in any later edition.

The contributors to the dictionary, listed on the cover and the title page, are mostly speakers the author worked with, but the list also includes speakers and linguists whose published work is used. The contributors are Peter J. Seymour, Madeline DeSautel, Clara Jack, Dora DeSautel, Edna Jack, Herb Manuel, Helen Toulou, Sophie McDonald, Mary Lemery, Julia Quintasket, Cecelia Smith, Cecelia Andrews, George Quintasket, Charlie Quintasket, Albert Louie, Larry Pierre, Martin Louie, George Lazard, Randy Bouchard, et alii.

Thanks to the use of an ethnogeography (Bouchard and Kennedy 1979) and an ethnobotany (Turner, Bouchard, and Kennedy 1980), the dictionary is very rich in place-names and botanical terms, thoroughly identified and with interesting literal meanings in many cases. Mattina has included this information because he found Bouchard's transcriptions quite accurate; the ethnogeography and ethnobotany work of the authors is also known to be very thorough and accurate.

It is important to mention that Mattina has followed the Boasian technique of basing the dictionary primarily on textual materials. And this he has done in a

marvelous way. He entered the texts into a computer in 1977, along with paradigmatic materials in sentences as well as file-slip materials. The texts are not only legendary and ethnographic in character but also conversational, thanks to the help of one of the contributors who set up and recorded conversational texts. Tim Montler then devised a concordance program to run a concordance of the texts and other materials; this produced the core of the dictionary. The results were processed into the band format that Lexware can operate on to produce its sorts. Lexware programs produced the English to Colville-Okanagan finder-list and formatted both parts of the dictionary. The result was then printed out cameraready on a Sanders printer. Of course, in between each of these steps there were discoveries, corrections, additions, and the working out of glitches by Mattina, Montler, and Hsu.

Mattina further notes, "The forms listed in the examples do not always match the (main) entries which they follow. I have not regularized all my transcriptions thinking that I prefer to be inconsistent rather than factually wrong." This is candid and refreshing. Boas would have approved. When dialect variation or phonological nuances remain to be worked out, it is best not to regularize or regularize prematurely. Inconsistencies sometimes provide the clues to deeper analysis.

The dictionary is in two parts, Colville-Okanagan to English (pp. 1–289), then English to Colville-Okanagan, a finder-list (pp. 293–354). Don't be misled by the number of pages: this is a large dictionary, printed in very small but very clear type. Definitions and analytical terms are spare, as Mattina acknowledges, but there is a great deal of information to be found here. I believe this is the first Salish language dictionary to be published using Bob Hsu's Lexware programs. Some comments are therefore in order about the computer aspects as well as the content and organization of the dictionary.

In the Colville-Okanagan to English section, which forms the bulk of the dictionary, there are five types of entries: roots, particle skeletons, affix skeletons, full affixes, and words. The first three of these have the vowels omitted, since as with other Salish languages, the consonants are quite stable but the vowels and their positions in derivations from a given root can be quite variable. At first this makes these entries seem a bit forbidding, especially since this language, like many of its siblings, encourages long consonant clusters and a minimum number of vowels per word. (One is tempted to say, in tones reminiscent of an ad of several years ago, "Where's the Vowels?") The vowels attested are fully spelled out within each entry, yet without selecting base vowels—often a difficult task in Salish. In fact, roots and skeletons without vowels might be seen as respecting Salish sensibilities. Furthermore, the fully spelled-out words and affixes are also consistently cross-referenced to these root, particle, and affix shapes; this has been done with another computer program. So the five types of entries quite usefully enable easy access to the data by several routes.

Homophonous roots, especially when listed without vowels, are differentiated by subscript numerals. As is becoming common among Salishanists and some

others, an equals sign sets off lexical affixes from inflectional affixes; the latter employ traditional hyphens. In fact, all words in every appearance, even in sentence examples, are fully segmented by equals signs or hyphens as appropriate. Thus the main entries comprise morphophonemic analyses, and the examples range between phonemic and morphophonemic; adjustments across morpheme boundaries are to be spelled out in rules in a supplemental grammatical sketch which is planned to follow. Such rules are said to be fairly straightforward (e.g.,  $n-n \rightarrow n$ ) in most situations.

The main entries, but not the cross-references, are formatted using a pleasing variety of boldface, italics, serif, and sans serif fonts in several different point sizes, thus making the entries fairly readable. The only detraction from readability is the lack of paragraphing or indenting within long entries, to show subderivations or to group examples. That is done by using grammatical labels and punctuation, but I have often wished for indenting to aid in finding information within long entries.

A typical main entry might begin with a root sign and the consonants of the root, this followed by the phonemic form of the word with the vowels attested, all in boldface serif largest point type. Next comes the gloss, in italic san serif unbolded. Sometimes word class labels precede, sometimes style or register comments ("in allegro speech often reduced to cakw"), qualifications, or semantic details (as with place-names or scientific names for plants) follow—all of these are in a smaller size (point) of sans serif type. Sentence examples then may follow with the Colville-Okanagan unbolded, the gloss in reduced point size not italics, and the speaker or dialect in parentheses, all united within double angle brackets, «».

Other stems or uses derived from the same root are quoted in the same larger boldface type used for the root and first entry, and the gloss is in the same larger italic sans serif font used for the gloss of the first entry. Fonts are used to structure the entries and subentries, and succeed pretty well. With the Lexware programs the consistency of fonts, abbreviations, and details to be printed or suppressed for each "band" is accommodated by a program designed for each dictionary to the author's specifications by Hsu, Montler, or others at home in Lexware.

Each page has a useful running head and two columns of information which can be specified in Lexware programs. The average page has roughly one column of from one to three main entries with sentence examples, and one column of single-line cross-reference or other brief entries, such as borrowed words, personal names, etc.; about 40 such single-line entries fit in one column. An approximation of the number of entries found in the Colville-Okanagan section, then, would be about  $40 \times 289$  or 11,560 words.

The English to Colville-Okanagan section is also quite useful. The first key word of each entry is boldface sans serif, followed by the full gloss unbolded sans serif, then the Colville-Okanagan forms unbolded serif. A typical entry begins:

road xwił, s-c'wis; =aqs, =qs, -áqa's, a mark in the road  $n-tx^w-m=aqs$ . bad roads n-k's=aqs. built road s-n-k'wal'-qs-m. close to the road n-k'-k't=áqa's. cross a road  $n-tx^w-m=aqs$ . . . .

Thus the independent words as well as lexical affixes are grouped under the same key word if the key word contains the whole gloss Mattina wishes to specify. If

further semantic information is present in other glosses but the focus of the gloss is still the key word, then those glosses and words are shown as subentries. It is a direct and easy referencing system, especially where long, involved glosses are rare. It works well for this dictionary, though, as Mattina says, he feels the glosses should be fleshed out in the next edition and seeks the participation of readers to help in this task. That is a desirable goal, since there are very few true synonyms, and since some progress is being made in finding semantic rules to predict allosemes or variant meanings of words; I've been particularly interested in that area myself.

The English to Colville-Okanagan section is similarly in two columns with running head. The average page contains about 48 lines per column since subentry lines are about a 1.5 lines apart, while keyword entries are separated from each other by double-spacing. There are a variable number of lines per keyword entry; but since subentries under each keyword average two words per line like the single-line keyword entries, there seem to be roughly 192 entries per page  $\times$  62 pages or roughly 11,904 entries in the English to Colville-Okanagan section.

Mattina has succeeded admirably in completing this dictionary. It is based on a varied corpus, contains an impressive number of entries and sentence examples, and has spare but adequate analysis of the Colville-Okanagan forms. It is clearly presented and allows one to look up items quickly except in long main entries. Mattina wanted to get this first version out to the speakers and teachers, who have urgent need of it since the language is somewhat endangered, and to linguists, who will applaud this rich storehouse of invaluable information.

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