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Review of *The Wild Oat Inflorescence and Seed: Anatomy, Development and Morphology*, M. V. S. Raju

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to a close with comparisons of Lakota healers with other shamans, and recounts the evolution of the role of the traditional medicine man from the indigenous healer to the new role of mediator and "pastoral counselor."

Overall, the book's contribution lies in its intense and probing exploration of the Oglala Lakota healers' knowledge of the cosmos and rituals required to manipulate the universe. These data are a rich, historical resource and will be increasingly valued as sources disappear from our grasp. **Elizabeth S. Grobsmith**, *Department of Anthropology, University of Nebraska-Lincoln*.

The Wild Oat Inflorescence and Seed: Anatomy, Development and Morphology. By M. V. S. Raju. Regina, Saskatchewan: Canadian Plains Research Center, 1990. Illustrations, references, and figures. xv + 183 pp. \$25.00 paper (ISBN 0-88977-062-X).

This slim volume describes a detailed study of the reproductive parts of *Avena fatua*, the wild oat plant—a common weed in the northern plains and the probable ancestor of the cultivated oat. The book integrates the author's own work with information from available literature and includes lengthy technical descriptions of the structure and the growth of the inflorescence, the floret, the ovule, the pollen grain, the embryo, the seed, and the young seedling. Throughout the work, the author relates the wild oat's structure and development to other grasses, other monocotyledons, and other seed plants, offering evolutionary interpretations of many of the features observed. He places particular emphasis on the relationship of structure to the onset and breaking of seed dormancy.

In many cases Raju offers evidence that traditional views about the relationship of parts in grasses may be wrong. For example, the grass floret is usually regarded as small flower enclosed by two floral bracts, the lemma and the palea; this flower is considered to be essentially naked, its perianth (sepals and petals) represented only by two tiny structures, the lodicules, which function in opening the floret. Raju, however, finds evidence in wild oats of tiny floral bracts which form just below the florets but do not persist in development, and he interprets the lemma and palea not as bracts but as remnants of a three-parted perianth (three-parted because the palea originates from two separate primordia). He suggests that the lodicules represent an outer whorl of three stamens, one stamen having been lost and two greatly reduced and modified. Thus in Raju's opinion the "floret" of the wild oat can be considered a flower, whereas the traditional view regarded it as a flower enveloped within bracts.

He also points out (as have certain other authors studying other grasses) that many of the terms that are customarily used to describe the grass inflorescence are not technically correct. The whole inflorescence, since it blooms from the top down and from the outside in, should be considered "cymose" rather than "paniculate," and the small inflorescence unit that is normally called a "spikelet," should probably be called a "cymelet," since, in Raju's interpretation, its development is more similar to that of a small scorpioid cyme (as in the Borage family) than it is to that of a small spike.

Raju also offers an unusual assessment of the wild oat embryo. He agrees with most morphologists that the scutellum (the suctorial organ which carries nutrients from the endosperm to the embryo) is homologous to the single cotyledon of other monocots but states that the first leaf arises precisely opposite the scutellum and should therefore be regarded as a second cotyledon. Thus, in Raju's view, the wild oat may be added to the growing list of monocots with dicotyledonous embryos.

This work will appeal to the grass specialist and others with an interest in evolutionary interpretations of anatomical structures. A minor criticism is that many of the drawings and photographs would have been more intelligible if printed larger. The text also contains some unnecessary repetition of information and a small number of printer's and proof-reader's errors. **David M. Sutherland**, *Department of Biology, University of Nebraska-Omaha*.

Harvest of Opportunity: New Horizons for Farm Women. Lois L. Ross. Saskatoon: Western Producer Prairie Books, 1990. Bibliography. viii + 164 pp. \$16.95 paper (ISBN)88833-311-0).

Journalist Lois Ross has organized interviews with twenty-four contemporary farm women of the Canadian prairie provinces into four categories of women's entrepreneurship in the face of the farm crisis of the 1980s. With only a six-page introduction to the volume and briefer chapter prefaces, it is in many ways a book ready to be written. The author defended the interviews, edited only for length and redundancy, in the same ways I have often argued for "qualitative" research in saying that the words of the women themselves speak better to the "feelings or frustrations, apprehension or optimism, barriers and breakthroughs" than statistical information does. Yet the book left me wanting some analysis, or at least a summary chapter.

Although Ross divided the book into four sections, "From Field to Storefront," "On Farm Enterprises," "Toward Community and Beyond,"