

should enable positive identification. Additional information about each plant varies among species but includes plant vitamin content, economic uses, place of origin, harvesting tips and folk uses.

The activities are of three types. Hiking activities include bingo, leaf rubbings and predict the pollinator. Activities for the wait during cooking include a crossword puzzle, scrambled words and leaf coloring. The extended activities are mostly for ages 8 or 9 and up. They include a mini-plant press, potpourri and chocolate leaves. The activities emphasize use of natural or recycled materials.

The book also has a glossary of plant terms, a bibliography, an index, directions for drying plants, two pages of plant facts and tips on organizing a group outing. Both authors are naturalists who have been active in teaching about edible wild plants.

While the activities are mostly for elementary age children, the recipes and natural history sections would be applicable at any level. One way to utilize this material in a high school setting would be to collect the plants in biology class and use them in recipes during a home economics class.

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HISTORY OF MEDICINE

Life Before Birth: Reflections on the Embryo Debate. By Robert Edwards. 1990. Basic Books, Inc. (10 East 53rd St., New York, NY 10022). 186 pp. Hardback \$21.95.



"1978. It's not really very long ago, but it seems so to me. Those last anxious weeks of waiting, in July 1978, for the birth of Mr. and Mrs. John Brown's baby seem like another lifetime, another world. We waited, the Browns and our tiny medical team, Jean, Patrick and I, counting the days and biting our nails. And the press waited too, cluttering the hospital corridors, virtually camping in the grounds, for word had got out about this very special pregnancy and each reporter was determined to be first with the exciting news and pictures. (p.1).

In this opening paragraph, Robert Edwards sets the tone of this very personal and dramatic account of the events, personalities and controversies involved in the beginning of a new era in human reproductive tech-

nology. As a member of the team that was responsible for the first "test-tube" baby, Edwards is eminently qualified to write on this subject. His broad-ranging book is part history, part autobiography, part science and part philosophy, ethics and religion. His stated goal is "to provide a frank account of . . . the science of embryology and its many applications. . . together with its implications for humanity, the ethical questions it raises and the political and legal decisions it makes necessary." (p. xi).

Convinced that scientists have an obligation to inform and interpret for the public, he pursues this goal with the enthusiasm of a person with a mission. With obvious pride in his accomplishments and contributions and with a firm belief that advances in reproductive science are good, he skillfully combines his scientific knowledge and unique experiences to produce a thought-provoking and informative book.

The first part of the book focuses primarily on Edward's personal experiences in the 70s and 80s. Beginning with the chapter "Going It Alone," he describes the early struggles that he and his colleagues faced in getting support, both financial and social, for their work. He highlights the media attention, which was often unfair or inaccurate, surrounding the birth of Louise Brown. This is followed by the chapter, "Why Bother with Infertility," in which he acknowledges the concerns of those "who worry about devoting expensive resources to complicated procedures for curing infertility when too many children are being born anyway." (p. 23). However, he goes on vigorously to defend and justify this work with somewhat curious logic: "They [infertile persons] must receive treatment if they ask for it because great dangers lurk in restriction or withholding of any medical procedure on grounds of religion, or expense, or anything else. If the access of my patients to a remedy is impaired, so might the access of others be, with different illnesses." (p. 31). One can hardly be surprised that Edwards is an enthusiastic advocate of therapy for infertility, but this enthusiasm seems to occasionally obscure his reasoning.

The most technical, but still easily understood, chapter is the one titled "The Human Embryo," in which questions about what actually constitutes an embryo and when life begins are considered along with the various methods for donating and storing

eggs, sperm and embryos. The section of this chapter that discusses research on embryos especially reveals Edward's own bias when he writes, "Undeniably, research on human embryos is still desperately needed, and for many purposes." (p. 72). He further supports the necessity for such research by characterizing the consequences of developmental problems in negative terms, such as those describing embryos with chromosome abnormalities: . . . "occasionally one survives, to be born tragically impaired" . . . to "begin their short, forlorn lives," and "a few form severely abnormal children, doomed to a year or two of wretched life." (p. 73). His predictions of the potential good resulting from embryo research continue his advocacy of this activity when he says, "A future medicine can easily be imagined. Rows and rows of stem cells, deep-frozen, waiting to fight our cancers, to restore our paling blood or repair our fading brains . . . or possibly fighting the ravages of old age." (p. 81).

The last chapters of the book deal with many of the ethical, religious and legal issues associated with the "reproduction revolution" and include a separate chapter on questions related to surrogacy. Although these are somewhat diffuse discussions, they do serve to raise consciousness and impress one with the immense complexities of the issues involved. Edwards seems to make a sincere effort to "internationalize" his discussions; however, much of what he says is rather specific to British interests, even to the extent of analyzing personalities of specific members of Parliament!

One would not select this book for "cutting edge" scientific information, as the field of reproductive technology is changing too rapidly. Nor would one find this a particularly objective or thorough review of ethical, religious or legal issues. However, one would want to read *Life Before Birth* for a fascinating historical account of an exciting and confusing time in biomedical history. Illustrated with memorable photographs of some of these events, and written with intense feeling and keen insight by one of the actual participants, it provides an appreciation for the significant scientific accomplishments as well as the real life drama of the persons involved.

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