

Paperback Re-issue

Plants share most aspects of cell biology with other organisms, yet their embryonic development continues throughout their life, their cells do not move relative to each other and their structure is relatively simple. These traits make plants a particularly advantageous group for the consideration of the development of biological form. The chapters in this book are centered around the structure of tissues, an intermediate and neglected level between overt morphology and biochemistry, and their purpose is to try and predict what should be looked for at a molecular level so as to account for observable forms. Each chapter deals with a defined problem such as the role of hormones as correlative agents, tissue polarization, apical meristems and cell lineages. The final chapter develops an alternative approach to the problem of the specification of biological form, that of "epigenetic selection". For plants, this approach accounts for major observations, such as the role of known, unspecific plant hormones in the organisation of tissues.

This book will be of interest to all those attempting to understand the principles and mechanisms behind plant development.

The front illustration shows the leaf surface of a Begonia. Both patterned and random elements are evident in the configurations of the pores (the stomata) and of the cells that surround them.

Cover design by Ken Vail

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