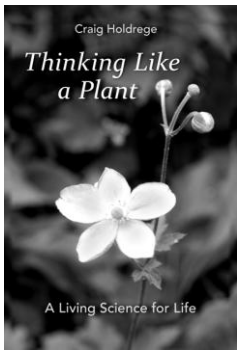
A NEW PERSPECTIVE FOR THINKING

JACQUELINE BORTOFT

'Thinking Like a Plant by Craig Holdrege'



Craig Holdrege has been the director of The Nature Institute in Ghent, Columbia County, New York since 2002. As one of today's foremost Goethean scientists he has carried out a number of remarkable research studies on both animals and plants and published a number of papers and books. `Thinking Like a Plant' is his most recent. It is an exciting practical guide as well as a compendium of descriptions and ideas of his findings as a researcher and an educator.

In the 18th century Weimar Goethe's curiosity about natural phenomena, as well as his observational and practical talents, led him to develop a mode of scientific investigation which sought to bring the livingness of the outer natural world within the realm of experience. He developed his own precise methodology. An undercurrent of Goethean science has continued, principally in the Steiner movement, as Steiner was Goethe's literary executor. In the last 50 years the more subtle and internalised processes of its method have become more appreciated among mainstream scientists and artists. Today the world really needs to look at it again, more closely. Craig Holdrege's book is a beautifully written record of his understanding of the approach, including some updated translations of Goethe's writing in the light of his own experience, for this is an experience-changing scientific method.

Most of us come to recognize certain plants, "that is a dandelion and that is a buttercup" but few realise how the actual shape of the leaf changes during the life-time of the plant as each new leaf forms. The flower appears as a step change, Goethe coined the term metamorphosis for this. But the story is more extraordinary than that. Craig Holdrege, through careful observation of plants, often with student groups, shows how observation can be endless and understanding is cumulative. His metaphor is of a conversation or active progressive interaction between the plant and its environment. He brings together some of the many research projects that now point to this being a reciprocal interaction. So not only is the plant formed by the environment but the environment is progressively altered by plants' growth. By taking observations of the outside world into our inner understanding, we grow in accord with an intention and with the quality of our inner and outer attention. We develop a peripheral attentiveness as he says "the perceptual world is endlessly rich".

The description of the growth changes in a field poppy are so eloquent it calls to mind a musical symphony – what we miss when casually spotting the plant in the field is the sequence and harmony of its parts. Flowering in the plant is a deeply meaningful process which incorporates both growth and simultaneous decay. The whole plant in a sense is never there but at the same time you are always dealing with the whole plant. A subtle shift of appreciation is required to see this, and Craig Holdrege helps the reader wonderfully with these changes. His ideas are often supported by delicate drawings, diagrams and photographs.

To understand the process of cognition, a study group is presented with a previously unseen and unknown object. He describes some of the mental and emotional processes that occur while trying to shoe the mystery, into an external and personal phenomenon which is 'known'. He also draws on the thoughts of David Bohm who spoke of the need to become more self-aware of our thinking processes "Through achieving self-awareness in activity we awaken to our participation."

Starting with the notion of the stream of consciousness Holdrege develops the observation that perceptions are choppy and point-like in their quality and subject, again a consequence of our brain function. But in the flow of a plant development at every point it has a more or less predictable history and future, including in metamorphosis. Any point we observe is rooted in a context.

The qualities of plant-ness can be brought into human consciousness as a possible enrichment of our own way of being. We have a tendency to see plant life as a bit inferior to animals and particularly warmblooded animals, but by coming to understand and appreciate some of the qualities of adaptability and the richness of their growth and development we can reflect on our personal interactions in our immediate world. When the human mind comes to understand the plant's mode of living-being this is a new manifestation of both the plant and of the mind. He reminds us that plant life is a unique capacity on the earth and likewise we have the

ability to do things plants cannot, but when properly seen they do enrich each other. We can learn from the way a plant lives to produce a healthier (for the environment) way of thinking and being.
Much is revealed in a close examination of the milkweed. Like the potato each plant is actually part of a single root system, so genetically actually ONE plant. A shoot emerges from a bud on the rhizome which then grows in a characteristic form producing a number of flower heads each with between 20 and 200 flowers. Of these only 1 or 2 will be fertilised and grow into seed pods but each of these is packed with several hundred seeds. The process brings to light an amazing degree of expansion and contraction within the growth phases of this plant. The mystery of this amazing abundance and paucity, and the several hazards and bottlenecks encountered through the fertilization of its extraordinary flower structure, its interactions with a variety of other animal forms, and how these themselves depend on the plant reads like an adventure story. It filled this reader, yet again, with a sense of wonder at the natural world. This chapter alone gives an overwhelming sense that natural organisms are always embedded in a network of mutually dependent relations and that we misunderstand nature if we consider organisms in isolation from their context and think we understand what is happening. It is probable that the more we look the more we will discover that interdependence is endemic in our world and we need to take it seriously. By treating nature one species at a time we remain ignorant of how we destroy biodiversity through interference with natural networks. “A fuller story of an organism leads to a large web of relations.” “There is no isolation in the living world”.

He begins and ends this brilliant chapter with the remarkable work of Aldo Leopold who said “*there is drama in every bush, if you can see it. When enough men know this, we need fear no indifference to the welfare of bushes, or birds, or soil or trees. We shall have no need of the word 'conservation' for we shall have the thing itself*.”
Leopold’s life was transformed as a young man before the Second World War by a strong experience in the natural world and his writings are a valuable testament to what we still need to come to grips with, though now many more people have been sensitised and the problem is more pressing.
Finally he describes the structure of a day in the work of The Nature Institute giving an overview of the way the courses are intentionally designed to harmonise and complement the various activities in a day of students working together. He shows, using some of the feedback from students, the effects that this can create within their experience. He points to an education which is freed from targets but rather turns on deeply considering the individual potential of each student, to guide and allow their interest to flower and even to hold to a continuing consideration of questions with no simple answer.
The book is rich with immediate experienced examples of what he is trying to communicate. For example, his beautiful introduction to the idea of the importance of a ‘commanding presence’ from the animal world in the experience of a young child is just one of the many obvious, crucial but neglected aspects of our understanding of what it means to be living in the world today, and why so many have a sense of disconnection. My own granddaughter in her third year has spent much time fascinated with the joys and inevitable pitfalls, in spite of many warnings, of too close engagement with the ‘bumbles’ that inhabit the lavender bed in her garden.
He closes the book with some thoughts on where our current education strategy is misguided. He suggests that much education is presented as a more simplified version of the complexity to come. Instead of being a current learning experience the subject matter appears to the student as abstract and distant which tends to lead to confusion or boredom or both. He has many suggestions to make it more real, relevant in the present and so more properly educational. By considering education and describing some remarkable experiences in a long period spent in Steiner schools he sees that understanding education is the key to a better future, for individuals, society and the planet. In Craig Holdrege’s words “By engaging in the concrete we can escape the grasp of the abstract”, his book which is nicely produced and very approachable in its size, mines several rich seams of biological, ecological and psychological reality and I definitely recommend it.

Jacqueline Bortoft was born in Zimbabwe (Rhodesia) trained as a biologist and chemist there and in London. She did several years research in tropical medicine before marrying philosopher Henri Bortoft, travelling widely with him, having 3 children and branching out on numerous interests.