

“appendicular organs”, whether ordinary leaves or floral parts, have a similar mode of development at the growing point (*punctum vegetationis*) of the stem. It was thus *inductively* that he reached the following conclusion (1767): “In the entire plant, whose parts we wonder at as being, at the first glance, so extraordinarily diverse, I finally perceive, after mature consideration, and recognize nothing beyond leaves and stem (for the root may be regarded as a stem). Consequently all parts of the plant, except the stem, are modified leaves.”

What is particularly significant in Wolff's work is that he sought in the study of development to find a secure basis for his theory that the parts of the flower are transformed leaves. “If”, he said, “the organs of a plant, with the exception of the stalk, are thus referable to the leaf, and are mere modifications of it, a theory showing the manner in which plants are generated is obviously not a very difficult one to form, and at the same time the course is indicated which we must follow in propounding it. It must first be ascertained by observation in what way the ordinary leaves are formed, or in other words, how ordinary vegetation takes place, on what basis it rests, and by means of what powers it is brought into existence. Having gained this knowledge, we must investigate the causes which so modify the general mode of growth as to produce, in the place of leaves, the parts of the flower.” His own peculiar theory was that the change from a foliar to a floral organ was due to a diminution of vegetative power (*vegetatio languescens*).

More than twenty years after Wolff, Goethe reached a similar conclusion on independent lines. One may

Goethe. doubt the accuracy of his self-analysis when he said that he had been more influenced by Linnæus than by any one save Shakespeare and Spinoza, but it is certain that he was stimulated by the *Prolepsis*. For several years before he published his famous essay he was pondering over the problem of the flower, and it was doubtless this persistence “through long prosecuted studies” which enabled him to persuade himself that he had reached his conclusion inductively. The