The Taylor Series. An Introduction to the Theory of Functions of a Complex Variable. By P. Dienes. Oxford, The Clarendon Press, 1931. xii+552 pp.

This treatise conducts the reader from the elements of real variable theory into some of the furthest reaches of complex analysis. As we feel that the book will find its chief usefulness in connection with modern function theory, we shall describe first the more advanced chapters.

Chapter VIII deals with Picard's theorem and conformal mapping. By the simple method introduced in 1925 by Bloch, the theorems of Landau and Schottky and Picard's theorem are proved in succession. The Riemann mapping theorem for simply connected regions is proved by the most modern methods.

Chapter IX presents Weierstrass' factorization theorem for integral functions, Mittag-Leffler's theorem, Borel's method for the summation of divergent Taylor series and the representations of analytic functions in star domains, due to Mittag-Leffler and Painlevé.

Chapters X and XI deal with questions inspired, directly or indirectly, by Hadamard's dissertation. One finds here Hadamard's condition for the non-existence of essential singularities on a circle of convergence and his theorem on the multiplication of singularities. Ostrowski's hyperconvergence is also presented.

Chapter XIII deals with conditions for a power series to represent a bounded function within its circle of convergence (Nevanlinna), with majorants (Hardy, Landau, Bohr), with convergence at singular points (Riesz), and with radial limits (Fatou).

In Chapter XII there is given an extensive treatment of the summation of divergent series. Applications are made in the final chapter (XIV), to the study of the types of divergence of power series at singular points. This last chapter also presents Hadamard's theory of the order of a singular point.

It would be difficult to overestimate the value, for advanced students, of these later chapters in Dienes' book. They reduce to didactic form a large section of the recent literature on complex analysis. These seven chapters, the second volume of Bieberbach's *Funktionentheorie* and Montel's *Fonctions Entières et Méromorphes*, give together quite a complete account of the more modern contributions to complex variable theory.

The first seven chapters of Dienes' book present what is commonly considered elementary complex variable theory, with the exception that, in Chapter V, one finds such topics as Schwarz's lemma, Hadamard's three-circle theorem, and Vitali's theorem. The elementary chapters contain a great amount of excellent material. One might mention the interesting treatment of hypercomplex numbers and also the valuable collections of exercises. However, we do not think it can be claimed that these chapters furnish a sound introduction to function theory. Let us consider, for instance, the question of analysis situs. Chapter VI contains a detailed proof of the Jordan separation theorem. On the other hand, the notion of sense receives no consideration, so that, in Chapter VII, one finds oneself integrating "with the area on the left," on a purely geometric basis, just as in older, frankly intuitive accounts of the subject. The treatment of the number system in Chapter I does not seem to us to be ade-