

On the other hand, it would appear that Carathéodory wished to revive certain classical aspects of the theory of analytic functions which generally do not receive much attention nowadays.

Here is a book which will be of permanent interest not only to the specialist but to all who are inclined to graze in function-theoretic pastures.

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Lezioni de geometria moderna. Vol. 1. Fondamenti di geometria sopra un corpo qualsiasi. By B. Segre. Bologna, Zanichelli, 1948. 4+195 pp. 1200L.

This admirable little book comprises a course given by the author at the University of Bologna. It will be followed by two volumes devoted, respectively, to non-linear projective geometry and invariants of birational transformations.

Since an objective is to have the basis of (projective) geometry reflect the great generality achieved in recent years by abstract algebra, almost half of the 180 pages of text (twelve of the seventeen chapters) are exclusively algebraic. In a rapid but clear manner the reader is presented with the essentials of residue classes of integers, groups, rings, corpora and fields, homomorphisms, sub-rings and ideals, zeros and decomposability of polynomials, algebraic and transcendental extensions of fields, finite corpora, and Galois fields.

The word "corpus" (plural, corpora) requires an explanation. The author avoids the contradiction in terms current in English (and other languages) that refers to an algebraic structure which has all the properties of a field except that commutativity of multiplication is not assumed (and may even be denied) as a *noncommutative field*. He calls such a structure a corpus (corpo) and reserves "campo" for a field. The reviewer feels that this terminology might well be generally adopted.

The algebraic preliminaries disposed of, the remaining five chapters proceed at a still brisk but somewhat slower pace. In Chapter 13 a (right) linear space over a corpus γ is defined as a set S of "points" in which certain subsets (subspaces) are distinguished, and the following two properties subsist.

I. There is a one-to-one correspondence between the points ξ of S and ordered (right) homogeneous n -tuples $(x_1, x_2, \dots, x_n)$ of elements of γ (not all zero); that is

$$\xi \sim (x_1, x_2, \dots, x_n) = (x_1c, x_2c, \dots, x_nc) \neq (0, 0, \dots, 0), \quad c \in \gamma.$$

II. A subspace S' of S consists of all points ξ of S representable by