Bochner-Weil-Raikov theorem on positive functionals, and a Plancherel theorem (after Godement). Thus the later proofs of the more familiar form of these theorems for group algebras become spectacularly abrupt.

Haar measure (with a neat treatment of quotient measures) and the Banach algebra of L^1 under convolution over a locally compact group having been disposed of in Chapter VI, the next chapter gives that satisfactory treatment of the theory of characters for the abelian case which the concept of maximal ideals makes possible. Pontrjagin's duality theorem itself is rather ignominiously embedded in a section on miscellaneous theorems, and provides an occasion for remarking that the important structural considerations on which this duality theorem was based in pre-normed ring days are not (as contrasted with A. Weil's book) here presented.

Compact groups and almost periodic functions are next treated by means of Ambrose's H^*-algebras, which were (of course) set up in an earlier chapter. The work closes with a stimulating chapter on further developments. A paper of H. J. Reiter, whose place of publication was indefinite at the time, is in the Trans. Amer. Math. Soc. vol. 73 (1952) pp. 401–427 and further references of interest are in R. Godement's paper, pp. 496–556 in the same volume.

The author is certainly to be thanked for his efforts in producing, in this field, a text which will take its place next to Pontrjagin's and A. Weil's in the literature of locally compact groups. Aesthetic considerations certainly played a large part in shaping the exposition. It is to be hoped that the book will be widely used as a text for graduate courses. I would guess that there was material for about 75 lectures of the usual sort. The instructor will have to consider each lecture carefully in advance, think about adding to the index (an index of symbols would help), and provide alternative motivations with detailed examples. The student will understand that this monograph is not a treatise on the fields partly covered by the chapters on prerequisites (Banach algebras, operator algebras, topological groups, etc.). Nevertheless, after careful study of this book, he should be able to decide whether he shares the ability of some, and the enthusiasm of many, for research in these fields.

<div align="right">RICHARD ARENS</div>

Conformal representation. By C. Carathéodory. 2d ed. Cambridge University Press, 1952. 10+115 pp. $2.50.

Except for the addition of a chapter on the uniformization theorem, this is an exact reprint of the original 1931 edition (which, by an oversight, was never reviewed in this Bulletin).