worthwhile work, but a decade later the subject has lost much of its interest. Not every answer deserves a new question. The past ten years have produced a spate of counterexamples in the type of harmonic analysis considered here. No doubt more will be forthcoming, and one can expect that the resolution of some of the unsolved problems listed by Graham and McGehee will show a lot of cleverness and ingenuity. But it is time to do something else. The general questions which can be posed in terms of locally compact abelian groups really come down to **T**, **Z** and **R**. There are still some things to do in $\mathbf{R}^n$. I would rather see some positive results related to nice subsets of $\mathbf{R}^n$ than more counterexamples for perfect nowhere dense subsets of $\mathbf{R}^1$. Also, commutative methods applied to noncommutative Lie groups have yielded some interesting results, but the authors say little about this.

In summary, Graham and McGehee have written an interesting monograph, and written it well, but it is an epitaph for an epoch in Harmonic Analysis, 1940–1980. Rest in peace.

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CARL HERZ

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Operator algebras and quantum statistical mechanics, Volumes I and II, by Ola Bratelli and Derek W. Robinson, Springer-Verlag, New York-Heidelberg-Berlin; Volume I, *C* and W*-algebras, symmetry groups, decomposition of states*, 1979, xii + 500 pp., $36.00; Volume II, *Equilibrium states, models in quantum statistical mechanics*, 1981, xi + 505 pp., $46.00.

The theory of operator algebras was initiated by von Neumann in 1927, and Murray and von Neumann in 1936. One of the principal motivations of Murray and von Neumann for the theory was an application to a quantum