BOOK REVIEWS

"MODERN DIMENSION THEORY"   (Revised and Extended Edition)

By *J. Nagata*

Published by *Heddermann Verlag,* Berlin, 1983, DM68, pp. 284.
ISBN 3-88538-002-1

From the publisher's description:

"This book is a completely revised and extended edition
of "Modern Dimension Theory" published in 1964.   It succeeds
the old edition in spirit and objective and gives a brief
account of modern dimension theory in its present state.
Although the book begins with elementary concepts not req-
uiring any knowledge beyond elementary general topology it is
not only of interest for the beginner but also for the working
mathematician in particular because of its survey character
and its rather complete bibliography of approx. 500 titles.

The developments during the last twenty years have been
so remarkable and extensive that a thorough revision and a
large number of additions had to be made.   Especially the
chapters on the dimension of non-metrizable spaces and of
infinite-dimensional spaces had to be wholly rewritten.   New
sections on the Pontryagin-Schnirelman Theorem, on "Dimension
and Ring", and on "Dimension and Metric Function" were incl-
uded, to mention just a few.   Furthermore, new characterizat-
ion theorems of dimension are presented.

The reader will easily get a good bird's-eye view of the
classical dimension theory, more recent approaches and latest
developments, and is thus provided with a starting point for
his own research.   The working mathematician will appreciate
the comprehensive treatment of the subject and the bibliography
which together make the book an indispensable source."

"WILLIAM ROWAN HAMILTON.   PORTRAIT OF A PRODIGY"

By *Sean O'Donnell*

Published by *Boole Press,* Dublin, 1983, $24.95, pp. xvi + 224,
ISBN 0-906783-06-2

This latest biography of William Rowan Hamilton deals much
more with the man than with his work, but claims that in the
end 'even the most recondite achievements' will seem less mys-
terious in the light of the study of Hamilton's personal dev-
elopment.   Now the portrait of an artist as a man may some-
times throw some light on the way in which he came to exercise
his imagination; but in the case of scientists, and of math-
ematicians especially, the roots of personality and invention
are far too mysteriously entwined for us to disentangle them
with the imperfect insights presently at our command.   When-
ever the evidence is available, it is good to have biographies
of important mathematicians simply because we want to know
what kinds of people our heroes were and what kinds of lives
they led.   Such a biography need not dwell in detail on the
subject's achievements, so long as the reader learns enough
of these to obtain a true measure of the intellectual stature
of the subject, and so long as they are portrayed as vital
components of his life (e.g. Mr Reid's biography of Hilbert).
As T.L. Hankins writes in what Mr O'Donnell acknowledges as
the 'definitive life' of Hamilton (published 1980) "it will
not do to write the life of a mathematician excluding his
mathematics".   Unfortunately, that is what Mr O'Donnell has
done - not intentionally, for he attempts to summarize Hamil-
ton's scientific work; but inevitably, for he does not under-
stand any of the mathematics well enough to convey its import-
ance in any way other than by quoting from time to time what
others have said of it.   Probably Mr O'Donnell wanted this
account of Ireland's greatest scientist to reach a much wider
audience than did the monumental 'Life' of Graves or the sch-
olarly book of Hankins, and of course he may succeed, for he
has a lively style of writing; but if the object was to make