But this is another story, better left to the reviewer of Volume III. As a preparation to all this new "microlocal" world, Chapter VII of Volume I presents a detailed treatment of the stationary phase formula (and a proof of the Malgrange preparation theorem, eventually needed in the microlocal reduction to standard forms). Chapter VIII is entirely devoted to the wave-front set, which is the central notion of (the first) microlocalization. Chapter IX looks at the analytic wave-front set and introduces a definition of hyperfunctions in the spirit of Martineau.

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Shape theory, by S. Mardešić and J. Segal, North-Holland, Amsterdam, The Netherlands, 1982, xv + 378 pp., $81.50, Dfl 175.00. ISBN 0-4448-6286-2

The appearance of a book on shape theory provides the reviewer with the opportunity of assessing where shape theory came from, and what of value is coming out of it.[1]

1. A little history: Čech homology 1928–1968. In the late twenties, there was point set topology and there was algebraic topology, but the correct relationship between the two subjects had not yet become clear. In those days, algebraic topology meant, in the main, the homology theory of simplicial complexes with integer coefficients. The topological invariance of this theory was more or less established, but the restriction of the theory to polyhedra appeared to the point set topologist to be arbitrary and ugly.

Then, in 1928, Alexandroff [2] discovered a theorem which, with hindsight, can be seen to express the proper relationship between the two subjects. The

[1] References refer to the bibliography of the book under review.