The Recognition Problem for Topological Manifolds

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We shall present a historical survey of the geometric topology of generalized manifolds, i.e. ENR homology manifolds, from their early beginnings in 1930's to the present day, concentrating on those geometric properties of these spaces which are particular for dimensions 3 and 4, in comparison with generalized (n > 4)-manifolds.

In the second part of the talk we shall present the current state of the main two problems concerning this class of spaces - the *Resolution problem* (the work of Bestvina-Daverman-Venema-Walsh, Bryant-Lacher, Brin-McMillan, Lacher-Repovš, Thickstun, and others) and the *General position problem* (the work of Bing, Brahm, Lambert-Sher, Daverman-Eaton, Lacher-Repovš, Daverman-Thickstun, Daverman-Repovš, Brahm, and others). We shall list open problems and related conjectures.