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Middletown, CT 06459. *Portraits of Kuratowski monoid orbits*. Preliminary report.

Some six dozen or so years ago, Kuratowski observed that, given a subset A of a topological space, if one begins with A and repeatedly applies the operations of closure and complement (resp. of closure and interior), as many as 14 (resp. 7) distinct subsets arise, but never more.

From this observation a small cottage industry has arisen, characterizing the cardinalities of these closure-and-complement (resp. closure-and-interior) monoid orbits, and finding minimal cardinalities for the finite spaces capable of realizing them.

In the same vein, we mine the possibilities of classifying the isomorphism types of these orbits as action-sets for the corresponding monoids; and we offer some portraits, in the style of Kerekjarto's famous portrait of Bessel-Hagen, of some of the finite spaces in which they occur. (Received December 01, 2009)