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How Charles Ehresmann's vision of Geometry developed with time

Abstract. In the mid fifties, Charles Ehresmann defined Geometry as “the theory of more or less rich structures, in which algebraic and topological structures are generally intertwined”. In 1973 he defined it as the theory of differentiable categories, their actions and their prolongations. Here we explain how he progressively formed this conception, from homogeneous spaces to locally homogeneous spaces, to fiber bundles and foliations, to a general notion of local structures, and to a new foundation of differential geometry based on groupoids of jets and their actions. These successive generalizations led him to a turning point in the late fifties toward a categorical framework to which he devoted the rest of his life.