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Kathryn McCormick* (kathryn.mccormick@csulb.edu). *Holomorphic subalgebras of n -homogeneous C^* -algebras*. Preliminary report.

There is a long tradition of analyzing a C^* -algebra through some topological invariant. One such result is Tomiyama and Takesaki's 1961 proof that an n -homogeneous C^* -algebra A is determined up to $*$ -isomorphism by an underlying continuous matrix bundle, and A is an algebra of continuous cross-sections of the bundle. Suppose that the base space of the bundle is a bordered Riemann surface with finitely many smooth boundary components. Then for each such realization of an n -homogeneous C^* -algebra, one can define a subalgebra of holomorphic cross-sections. We will describe a partial result towards classifying these subalgebras up to complete isometric isomorphism based on topological invariants. (Received September 01, 2020)