We prove that any region Γ in a homogeneous n-dimensional and locally compact separable metric space cannot be irreducibly separated by a closed $(n-1)$-dimensional subset C with the following property: C is acyclic in dimension $n-1$ and there is a point $b \in C \cap \Gamma$ having a local base $\mathcal{B}_C^b$ in C such that the boundary of each $U \in \mathcal{B}_C^b$ is acyclic in dimension $n-2$. The acyclicity means triviality of the corresponding Čech cohomology groups. This implies all known results concerning the separation of regions in homogeneous spaces.