Consider an arrangement $A$ of $n$ unit balls in $\mathbb{R}^3$, such that every point is covered by at most $k$ balls. Show that there exists a $t < k$ and a 2-coloring of the balls such that every point that is covered by at least $t$ balls is covered by at least one ball of each color.

*Hint: you may use that every arrangement of $n$ balls in $\mathbb{R}^3$ has at most $n^3$ cells.*