The theme of the talk is the use of Hodge theory to study questions in algebraic geometry. The specific question that will be addressed is: How can Hodge theory guide us to an understanding of the singular surfaces that appear on the boundary of the moduli space of surfaces of general type? Following a discussion of the classical case of algebraic curves and the relevant background in Hodge theory, we will give the beginning of an answer to the above question for regular surfaces $X$ of general type with $p_g(X) = 2$ and $K_X^2 = 2$, which is the first non-classical case that one encounters.