

The impact of crystals and crystallography in art and culture

Juan Manuel Garcia-Ruiz

Laboratorio de Estudios Cristalográficos. Instituto Andaluz de Ciencias de la Tierra. CSIC-University of Granada, Granada. Spain

juanma.garciaruiz@gmail.com

Along with the invaluable contribution of crystallography to the advancement of science and technology, the very idea of *crystal* has been highly influential in the world of art and culture. This influence has changed throughout history in correlation with increasing scientific knowledge about crystals. Since the origin of consciousness, hundreds of thousands of years ago, human fascination for crystals has been so deeply rooted in our brains as to shape our perception of patterns. During prehistory, crystals had



teleological and theological connotations derived from a hidden power of their singularity among the natural objects. Later on, since the classical world to the emergence of positive science in the eighteenth century, scholars and experts endorsed mineral crystals with healing powers. The sheer beauty of the external forms of crystals and all they evoke fascinated educated people at that time. But the higher impact on mind and cultures started in XIX century. At that time, the extraordinary connection between the external harmony, redundantly beautiful symmetry of crystals, and the perfect internal order, periodic and iterative, was demonstrated. Since then, the word crystal is full of evocations such as purity, transparency, beauty, equilibrium, rationality, intelligence, energy, power . . . The notion of crystal transcended scientific thinking also to inspire the arts, from literature to painting, from architecture to dance, from music to filmmaking. Thus, the existence of a sharp boundary dividing the realm of biology and sensuality and the realm of minerals and cold rationality has pervaded the landscape of arts and philosophy for centuries. Crystals and crystallographic theories have played an important role in the intellectual construction of that proposed

boundary. I will explore how well founded is such a centennial controversy between two opposite ways to understand and practice art and what the future holds. I will base the discussion of well-known historical artistic debates in which crystals were central to the controversy, and the last advances in the morphogenesis of crystalline materials.

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