

## **Visual neuroaesthetics: principles and practice**

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Neuroscience has only recently joined empirical aesthetics, a research tradition that dates back to Fechner in the mid-19<sup>th</sup> century. To date, writings in visual neuroaesthetics fall into three categories. First are observations that artists' intent curiously parallel the workings of the brain. While proponents of this approach make very interesting observations, these mapping exercises do not constitute a neuroscience of aesthetics. Second are fascinating anecdotes. For example, neurological damage can produce remarkable changes in artistic proclivities. These intriguing observations are best considered a proto-science. They lack tests of hypotheses and rely on post-hoc explanations. Finally, are attempts to conduct experiments in aesthetics. Here, the challenge is to quantify parameters, and formally test hypotheses rather than rely on intuitions. Such research programs are predicated on the postulate that the brain mediates aesthetics like any other complex human experience or activity, and that complex domains can be broken down into component parts and studied meaningfully. Some might consider quantification, decomposition and statistical analysis anathema to aesthetics. But it is the only approach that takes seriously the "science" implicit in the term neuroaesthetics. I review one such approach that we have adopted in studies of the neuropsychology of art. Whether such an approach robs aesthetics of its special quality remains to be seen and a concern to which scientists should be sensitive.