In comparison with other great painters of the European tradition, our understanding of Leonardo da Vinci’s technical practices for his easel paintings has advanced quite slowly in the 20th and 21st centuries. This is partly because of the rarity of his autograph works, their often unfinished nature, and the relative infrequency of conservation treatments of Leonardo’s paintings and, therefore, a lack of opportunity for accompanying scientific study under favourable conditions. The full-scale conservation treatments of the *Virgin of the Rocks* in London (at the National Gallery between 2009–11) and the *Virgin and Child with St Anne* (at the Musée du Louvre, carried out at Centre de Recherche et de Restauration des Musées de France [C2RMF] between 2010 –2012), both of which involved comprehensive technical study in support of conservation, have changed the state of this knowledge decisively. At the same time further recent studies of Leonardo’s painted work by technical experts around the world have intensified and the results of these investigations, many of which have now appeared in print, have contributed significantly to a more integrated and scientifically-grounded view of Leonardo as a practitioner. This talk will deal with recent developments and newer assessments of Leonardo’s technical procedures.