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Sommario/riassunto	The use of natural mineral and synthetic blue pigments in antiquity for wall paintings and illuminated manuscript historiation evolved into the most suitable blue pigments for the decoration of glazed and enamelled wares (ceramics, glass and metal) which required a stability at the high temperatures of the kilns used for glazing and firing.

Historic literature is often vague regarding the blue pigments used for this purpose. The generic term “cobalt blue” covers a wide range of pigments that were actually used for the decoration of faience, majolica, stonewares, earthenwares and porcelains. This book addresses the application of elemental and molecular spectroscopic analytical techniques to a range of diverse problems which arise for decorated ceramics, glass and enamels and related artefacts: a history of techniques, provenance and authentication. The text contains an introduction to the important analytical techniques that are used in destructive and nondestructive analytical measurements and highlights potential future applications based upon novel miniaturised instrumentation for in-situ studies. The book is co-authored by two international experts with many years’ experience in the application of analysis to artworks and archaeological artefacts and in the investigation of materials and sites for cultural heritage preservation. Among 19 chapters one is devoted to an evaluation of the analytical techniques that are used and the pitfalls which can arise in the interpretation of the data. The approach conveys the detailed information which has become available from the adoption of analytical techniques to diverse problems through the scientific interrogation of ceramic and related artefacts. Examples are given of how the pigment analysis and sourcing can provide unique information about ancient trade routes and pigment sourcing historically. A classic instance is provided by the transfer of European enamelling technologies carried out at the beginning of the 17th century in Japan (Arita) and at the turn of the 17th-18th centuries in China by the Jesuits established at the Court of, respectively, the Kyushu island of Daymios and the Chinese Qing Empero Kangxi. It has hence been demonstrated that some of the most beautiful porcelains emanating from Japan and China in this period incorporate blue decoration with pigments supplied from Europe. The interpretation of the analytical data can assist museum curators, archaeologists, art dealers/experts and cultural heritage historians in the preservation and conservation of ancient materials which have applied blue pigment decoration. .
