

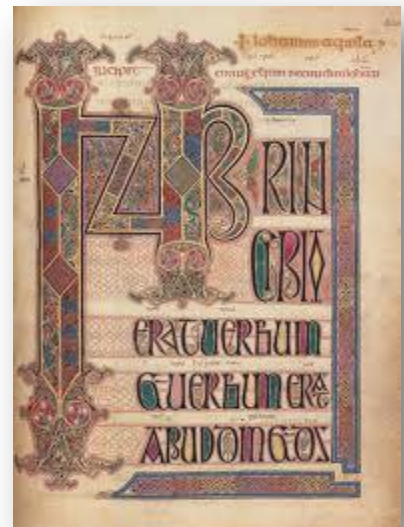
“THE INSULAR MANUSCRIPT PALETTE HAD FOUR MAIN COLORS: ULTRAMARINE BLUE, ORPIMENT YELLOW, MINIUM RED, AND VERDIGRIS GREEN.”

BUSTED!!

(SORTA)

The period of manuscript decoration in the British Isles from 600 A.D. to 1000 A.D. (when it began to merge into the Anglo-Saxon style), is very distinct with its lavish knotwork, zoomorphic designs, and brilliant colors. While the four main colors are in fact blue, red, yellow, and green, only half of this myth is accurate.

Recent Raman spectroscopic and microscopic analyses of early English manuscripts have all agreed firmly that indigo, mixed with gypsum, chalk or lead white, is the only blue pigment found before 970 A.D., where ultramarine is used for the first time to touch up an older manuscript.¹ Out of 104 blue sites analyzed on the Book of Kells², 100 were shades of indigo while the other 4 were not strong enough to give a reading. Indigo grows naturally in the British Isles and throughout Europe, and despite earlier assertions by 20th century analyses done by visual inspection via microscope, the blue is not in fact ultramarine, but the more easily accessible indigo.



Minium (red lead) and orpiment (arsenic sulfide) were indeed the red and yellow colors primarily used. The earliest European manuscript I can find using vermillion to is the “Beato de Valcavado,” 970 AD, from Spain. This is a little strange, since vermillion (mercury sulfide) was known and used since Roman times. Pliny the Elder mentions vermillion (as cinnabar) and a recipe to manufacture it artificially in his *Naturalis Historia*. The complete absence of vermillion on British Isles manuscripts is surprising, given the great deal of evidence supporting trade routes from Rome and Byzantium to the British Isles and strong influences upon Insular art by the Byzantium school.

It has often been a question for artists how some pages in Insular manuscripts were clearly degraded green, and others are still brilliant green and clearly in good shape. The use of vergaut instead of verdigris provides an explanation. Vergaut, a color made by mixing orpiment

with indigo, is found almost twice as often as verdigris on the Insular manuscripts. While verdigris can be found on the Book of Kells² and the Lindisfarne Gospels¹, vergaut was also found on both manuscripts, in far more sites. In fact, the only evidence of verdigris found so far in the Book of Kells is some degraded pigment in the cracks of the pages.

In summary, despite long reported evidence, we are finding that the four “main” colors used in Insular manuscript illumination were indigo, vergaut, minium, and orpiment. While verdigris was occasionally used, it was by no means the most commonly used green. Ultramarine will not appear on English manuscripts until the beginning of the Anglo-Saxon period, and even then rarely.

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- 3) Mark Clarke, “Anglo-Saxon Manuscript Pigments”, *Studies in Conservation*, Vol. 49, No. 4, (2004), pp 231-244.
- 4) Hunt, T., “Early Anglo-Norman receipts for colors”, *Journal of the Warburg and Courtauld Institutes*, Vol. 58, 1995, pp. 203-209.