

## Exhibits

### Lichtenberg on Mayer's Triangle

Initio animum induxeram triangulum Tab. III. coloribus pingere ex tribus pigmentis angularibus Mayerianis, cinnabari scilicet, coeruleo montano et flauo regio mixtis. Pigmenta haec apte mixta tot vasculis, quot sunt triangulo areolae indere decreueram, e quibus ita dispositis, vt trianguli speciem referrent, facile a quouis artis pictoriae vel minus perito pigmenta depromi et suis areolis illini potuissent. Sed ab hoc incepto me non solum deterruerunt sordidi colores virides et violacei, qui ex mistionibus illis prodibant, sed et imprimis illud, quod, ob differentes pigmentorum grauitates specificas et inaequalem cum aqua cohaesionem, et ab artis perito magni errores facile committi poterant. Nam coeruleum montanum, licet saepius decantatum et pencillio, antequam chartae illinitur, bene agitatum, tamen non ita cum cinnabari, et flauo regio misceri potest, vt mixtio sibi constet, nec, vbi saepius ex eodem vasculo hauseris, paulatim a colore, quem primo habuerat, deflectat, aliumque, areolae ad quam pertinuerat, non amplius quadrantem, induat. Praeterea coeruleum montanum, licet ob hilaritatem, elegantiam et imprimis ob aptitudinem sui coloris, [98] quippe qui =  $b^0$  [i.e.,  $b^{12}$ ], prae reliquis pigmentis coeruleis eligendum, non a quouis ita tractari potest, vt colore aequabili chartam inducat. Consilio itaque eiusmodi triangulum pro bibliopola pigendi reiecto, vt mihi, quae mistiones pigmentis angularibus Mayerianis producantur videre cupienti satisfacere, triangulum e siccis illis pigmentis, sicut *Mayerus* sub sinem §10, suadet, construxi, in vires illorum tigendi methodo Lambertiana ita inquirens. Ope staterae sidae ponduscula mihi confeci in ratione dupla progredientia, quorum minium grani tritici pondus no superabat. His equales pigmentorum in puluerem subtilissimum redactorum portiones statera, quantum potui, accurate exploratas, tenui et sicco penicillo miscui.

**Source:** Georg Christoph Lichtenberg, Commentary to *Tobiae Mayeri... Opera inedita* (Göttingen, 1775), 97–98.

### Translation

At first I had the intention of painting the triangle in Tab. III [i.e., the illustration] with colours mixed from Mayer's three angular pigments, i.e., cinnabar, mountain blue, and royal yellow. I had decided to put these pigments suitably mixed into as many little containers as there are areas in the triangle. Since they were arranged in this way so as to form a replica of the triangle, the pigments could easily have been produced by anyone little skilled in the art of painting, and spread over their respective areas. But I was deterred from this plan not only by the dirty greens and violets which resulted from these mixtures, but in particular by the fact that, on account of the different specific gravities of the pigments, and the irregularity

of their cohesion with water, large errors could easily be made even by someone skilled in art. Although mountain blue is often decanted and well stirred up with a brush before it is spread on the paper, it can nevertheless not be mixed with cinnabar or royal yellow in such a way that the mixture is consistent; and when drawn frequently from the same little container, it gradually changes from the colour which it possessed to begin with, and takes on another which does not correspond sufficiently accurately to the area to which it belonged. Moreover, although mountain blue must be given preference over the rest of the blue pigments because of its brightness and fineness, and especially because of its suitability, since it =  $b^{12}$ , yet it cannot be manipulated by anyone in such a way as to produce paper with a consistent colouring. And so, having abandoned my plan of painting a triangle of this kind for the bookseller, in order to satisfy my desire to see what mixtures can be produced from Mayer's angular pigments, I constructed a triangle from those dry pigments, as Mayer recommends at the end of §10, thus investigating their strengths of colouring by Lambert's method. With the help of a reliable set of scales, I obtained for myself small weights increasing in a double ratio, the least of which did not amount to more than the weight of a grain of wheat. When I had discovered portions of pigments (reduced to the finest dust) as accurately equal to these weights as I could make them, I mixed them with a thin dry brush.

**Source:** Eric Forbes, translator, "Treatise on the Relationship of Colors," *Tobias Mayer's Opera Inedita the First Translation of the Lichtenberg Edition of 1775* (New York, 1971), 127–128.

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