Mathematical Geography, the “Use of the Globes,” and Race Theory in Early America

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In the early republic, the now vanished discipline of mathematical geography and the “use of the globes”—space-time problems solved on terrestrial and celestial pairs—provided the intellectual scaffolding for a newly influential, credible, and authoritative explanation of skin color. Theorists steeped in these studies, most prominently Samuel Stanhope Smith, argued for a quantitative correlation between complexion and latitude visible in a regular gradation from the “equator to the poles,” turning to such secondary causes as environmental features and human customs to explain anomalies in the schema. The theory lent support to those who argued for the unitary origins of humankind, but opponents of slavery pushed its implications further, seizing on its understanding of blackness as a neutrally astronomical phenomenon and marshalling the authority of science to complement appeals to sentiment, even as hands-on experiences with globes may have reinforced visceral sympathies with distant peoples. By the antebellum era, however, pole-to-equator narratives, though sometimes cited by black abolitionists, proved no match for the new biological “sciences” of race. In recovering the earlier intellectual tradition, the distinctive design, use, and consumer availability of globes, and the learned and polite contexts of these studies and practices, we recover the impact of the physical sciences and quantitative thinking on race theory in this era.