Glass and rock crystal: a multifaceted relationship

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In a recent article M. Vickers claims that rock crystal is the key to cut glass in Persia and Rome.[1] Based on the premise that in antiquity "the hierarchy of materials was central to the conduct of civilised life," he constructs a hierarchy with precious stones at the top of the scale, followed by metals, and ending with glass and ceramics. Precious materials might be imitated in less valuable materials but "imitation up the hierarchy of materials was unusual." In particular, Vickers describes rock crystal as "the nobler material to which clear glass looked" and discusses the relationship between objects of rock crystal, silver, and glass.

While the existence of a value relationship among precious metals is indisputable, the rôle of glass in this context is not easy to define; it appears to have changed considerably over time. An abundance of archaeological and literary evidence proves that from the beginning glass was regarded as a man-made stone. Egyptian and Greek terms for glass clearly reflect the relationship: "stone from the mountain" indicated natural stone, "molten stone" (*lithos chyte*) indicated glass.[2] There is no doubt that ancient glass-workers tended to copy objects made in other materials. However, the evidence does not suggest to me that ancient craftsmen worked within the confines of a hierarchy of materials. The following considerations focus on the intrinsic value of glass, the imitation of shapes and decoration, and the ancient Greek terms *hyalos* and *krystallos*.

Intrinsic value of glass

The hypothesis that in antiquity glass served as a surrogate for luxury goods appears to be based on the romantic bias, that "natural" materials are more valuable than man-made ones. Yet even that bias does not hold true in all circumstances. In modern medicine, for example, man-made chemicals are often considered purer and more reliable than natural products. Likewise deceptive is the prevalent assumption that glass is inexpensive because its main ingredient is sand (see also below). The costs for running one's own hot shop are so prohibitive that very few artists can afford this. The main cost now is for fuel for melting (usually done at

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* My thanks are due to the editor of JRA for inviting me to respond to M. Vickers' article in *JRA* 1996 (see below). In addition to those listed in *AJA* the following abbreviations are used:

AnnAIHV	*Annales du ... congrès de l'Association Internationale pour l'Histoire du Verre* (Amsterdam)
Glass of the Caesars 1987	D. B. Harden *et al.*, *Glass of the Caesars* (Milan)
Newby & Painter 1991	M. Newby and K. Painter (edd.), *Roman Glass. Two centuries of art and invention* (London)
Stern 1994	E. M. Stern in E. M. Stern and B. Schlick-Nolte, *Early glass of the ancient world* (Ostfildern)
Stern 1995	E. M. Stern, *Roman mold-blown glass. The Toledo Museum of Art* (Rome)
Trowbridge 1930	M. L. Trowbridge, *Philological Studies in Ancient Glass* (University of Illinois Studies in Language and Literature 13)
Vickers 1996	M. Vickers, "Rock crystal: the key to cut glass and diatreta in Persia and Rome," *JRA* 9, 48-65.

1 Vickers 1996.

2 For Egypt: B. Nolte, *Die Glasgefässe im alten Ägypten* (Berlin 1968) 12-17; for Greece: Trowbridge 1930, 21 ff. On *lithos*, see most recently E. M. Stern, in J. Desanges, E. M. Stern, and P. Ballet, *Sur les routes antiques de l'Azanie et de l'Inde* (Mémoires de l'Académie des Inscriptions et Belles-Lettres 13, 1993) 28-31.