Seeking Transparency

Rock Crystals Across the Medieval Mediterranean

To Jens Kröger

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ROCK CRYSTALS ACROSS THE MEDIEVAL MEDITERRANEAN

Edited by Cynthia Hahn and Avinoam Shalem

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Cynthia Hahn and Avinoam Shalem

INTRODUCTION

Very many people find that a single gemstone alone is enough to provide them with a supreme and perfect aesthetic experience of the wonders of Nature.

Of objects that lie upon the surface of the earth, it is crystals that are most highly esteemed. —Pliny, *Natural History*, 77–79 CE[1]

This volume hopes to reveal rather than solve the secrets of rock crystal (particularly of the premodern period). Although it may seem ironic to term this relatively common hardstone "secretive" when it is the only, so to say, "crystal clear" substance of the Middle Ages, secure knowledge concerning the prestigious and valuable material has been elusive, only recently beginning to come to light. Many questions yet persist concerning sources, trade, manufacture, and meaning of the stone. This volume brings together a rich sampling of new work on the subject.

A first pressing question emerges: Why dedicate a volume to one specific substance? In an age that valorizes intercultural interactions, encourages interdisciplinary approaches, praises the global history of art, and critically discusses the colonial heritage of our postmodern era, such an exclusive and restrictive approach might seem to be a throwback—reminiscent of the nineteenth-century collector's gaze, a desire to organize and control the cosmos by naming its varied materials. Such a motivation might be traced, over the *longue durée*, to a *Natural History* as written by Pliny the Elder, or to the categorizing tradition of cabinets of curiosity. Our approach, however, diverges from such classifying projects and instead is concerned with the investigation of what has been called materiality. These studies offer new insights about the role and possibilities of the social power and distinctive agency of materials; about their meaning and worth.[2]

This approach, as exemplified by the essays here, affords a unique opportunity to bridge disciplines—calling upon work in archaeology, anthropology, sociology, the hard sciences, as well as philosophy, religious studies, and literature.[3] It even transgresses the spatial and temporal borders between different geographies and periodization systems set by art history as a scholarly discipline. One *might* argue this opens up a perspective that is every bit as comprehensive as the cosmic view of older knowledge systems. Indeed, rather than a narrowing of viewpoint, we might imagine each art object as opening a world of its own that sheds light on human knowledge, belief, and desire. As Claude Lévi-Strauss wrote:

> [A]rt lies half-way between scientific knowledge and mythical or magical thought. It is common knowledge that the artist is both something of a scientist and of a "bricoleur." By his craftsmanship he constructs a material object which is also an object of knowledge.[4]

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[1] Pliny, *Natural History*, 37.1 and 37.77.

[2] The field is growing and vibrant and we cannot hope to give more than a small selection of a vast bibliography on materials from valuable to abject, from wax to wood to gold. One excellent group of diverse essays in this field is *The Matter of Art: Materials, Practices, Cultural Logics, c. 1250–1750*, ed. Christy Anderson et al. (Manchester, Manchester University Press, 2015); see the introduction by Anne-Sophie Lehmann, "The Matter of the Medium: Some Tools for an Art Theoretical Interpretation of Materials," 21–41. Also for theory of materials and their meanings, see Aden Kumler and Christopher R. Lakey, "Res et significatio: The Material Sense of Things in the Middle Ages," *Gesta* 51 (2012): 1–17. A stimulating treatment of a single material and its consequences is Ittai Weinryb, *The Bronze Object in the Middle Ages* (Cambridge: Cambridge University Press, 2016). For more, see the "living," that is, crowd-sourced, bibliography at the website of the "The Material Collective."

[3] Important work across disciplines that has shaped materialist concerns include Arjun Appadurai, "Introduction: Commodities and the Politics of Value," in *The Social Life of Things: Commodities in Cultural Perspective*, ed. A. Appadurai (Cambridge: Cambridge University Press, 1986), 3–63; Jane Bennett, *Vibrant Matter: A Political Ecology of Things* (Durham, NC: Duke University Press, 2010); Bill Brown, "Thing Theory," *Critical Inquiry* 28, no. 1 (2001): 1–22; Caroline Walker Bynum, *Christian Materiality: An Essay on Religion in Late Medieval Europe* (New York: Zone Books, 2011); Alfred Gell, *Art and Agency: An Anthropological Theory* (Oxford: Oxford University Press, 1998); Timothy Ingold, "Materials against Materiality," *Archaeological Dialogues* 14 (2007): 1–16, Bruno Latour, *Reassembling the Social: An Introduction to Actor-Network-Theory* (Oxford: Oxford University Press, 2005); and the work of the philosophers on "object-oriented ontology," such as Graham Harman, *The Quadruple Object* (Winchester: Zero Books, 2011).

[4] Claude Lévi-Strauss, *The Savage Mind* (Chicago: University of Chicago Press, 1966), 22.

Following the lead of the anthropologist Timothy Ingold in the pursuit of "things," we aim at a "sensible inquiry" into the material world over against the "critical inquiry," so passionately embraced within literary and semiotic circles. In doing so, we seek to understand not only the materiality of objects but also even the material per se.[5]

Rock crystal is the perfect subject for such an endeavor. One could say that the very substance complicates the rational formation of our thoughts concerning its nature—it presents the challenge of a material oxymoron. At one moment, its beauty foregrounds materiality, as if calling our attention to the particular properties and meaning of the substance, demanding art-historical investigations into the history and symbolism of the precious stone. And yet, at the same instance, these very thoughts are thwarted because rock crystal's materiality is simultaneously immaterial. Its brightness and shine endow it with insistent presence, whereas its transparency makes it seem to disappear. Ultimately, we look through it, as if it does not exist. This most lucid of natural substances allows us to confront and assess the common object-subject or meaning-*mater* dualities in our thinking.

Contributions to our project in this volume come from a wide range of scholars, specialists in matters concerning the ancient Near East, Roman and late antique art, early and high medieval art of Byzantium and the West, as well as those working within the wide field called "Islamic" art history. The studies query formal issues concerning rock crystal (see essays by Jens Kröger and Marcus Pilz), but also issues of trade, manufacture, and dissemination; they treat dating, iconography, and symbolism, artistic use and reuse, as well as material meaning. Rock crystal even finds a role in the history of science as discussed here—its fascinating optical aspect has provided a utility as a substance through which one might profitably fortify the gaze (Farid Benfeghoul).

However, of primary interest: rock crystal's persistent high value in the premodern era remains a subject of inquiry. Today almost valueless, dismissed by gemologists as "clear quartz" and stripped of its mystical worth, it was once placed at the very peak of material preciousness, on a par with or even above gold (as suggested by Pliny the Elder in one of the epigraphs that open this text). That vaunted preciosity demonstrably survived even into the seventeenth century.

This volume will substantiate the parameters of such value, among other topics, tracking the pursuit of quality rock crystal to sources as distant as Madagascar via African trade routes (Stéphane Pradines), investigating the development of artisans able to carve the hard substance, and tracing its presence in luxury objects used, gifted, and reused as *spolia* in medieval courts (see Isabelle Bardiès, Beate Fricke, and Gia Toussaint). [6] Its aesthetic value was praised in poetry and prose from the classical period to medieval romance (see Patrick Crowley and Marisa Galvez).

In the ancient and medieval world, rock crystal was valued in part because of its nature as a hardstone, another material category that in and of itself was highly desirable in the premodern world but is little appreciated today. Such stones had special powers and were particularly useful for seals or amulets (Zainab Bahrani, Venetia Porter, and Genevra Kornbluth). The difficulty of carving hardstones made them all the more precious. As bravura pieces of workmanship, accomplished examples of carved and etched crystal became the product of specialized workshops, few in number and prized by their cities, emperors, viziers, and kings. Indeed, part of the aesthetic appreciation of the stone was rooted in the carved objects' ability to produce astonishment—to cause their beholders to ponder how they were made. The very inability to comprehend a means of manufacture was both part of the viewer's aesthetic experience and at the same time a factor in appreciation—aesthetic value linked to a sense of perplexity.

At the same time, identification of sources, workshops, and carving practices can aid art-historical understanding of use and dating as well as contribute to a social history of art (see Stefania Gerevini, Elise Morero et al., and Avinoam Shalem).

As a material like the other hardstones that were carved into large vessels and displayed in courts, rock crystal gave prestige to the kings and rulers who owned it: the bigger, the better. Brilliant when new, the stone was still gorgeous when reused. Treasured and collected, it was circulated among the wealthiest as a sign of privileged status—of equal importance to Byzantine elite, Muslim caliphs, and kings and noblemen of Western courts. Former ownership was a further sign of status, creating a directive to modern scholars to pursue provenance studies. Knowledge of stones and their powers was a wisdom preserved in the texts of lapidary traditions (see Brigitte Buettner). Furthermore, the ways in which it circulated even in the "darkest of the Middle Ages" and among states that otherwise might be thought to be hostile to one another is a sign of the permeability of the great cultures of the premodern era, at least as far as objects marked by preciousness and splendid workmanship are concerned (Fricke and Toussaint).

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[5] See the interview of Chris Witmore with Tim Ingold: "Tim Ingold on Categories of Material against Materiality," *Archaeolog* (blog), February 24, 2006, https://web.stanford.edu/dept/archaeology/cgi-bin/archaeolog/?p=37 (accessed July 25, 2019). See also Tim Ingold, *Being Alive: Essays on Movement, Knowledge and Description* (London and New York: Routledge, 2011); and Daniel Miller, "Materiality: An Introduction," in *Materiality*, ed. D. Miller (Durham, NC: Duke University Press, 2005), 1–50.

[6] We note only two selections from the vast literature on reuse and spoliation: Dale Kinney, "Ancient Gems in the Middle Ages: Riches and Ready-mades," in *Reuse Value: "Spolia" and Appropriation in Art and Architecture from Constantine to Sherrie Levine*, ed. Richard Brilliant and D. Kinney (Farnham and Burlington, VT: Ashgate, 2011), 97–120; and Finbarr Barry Flood, "Image against Nature: Spolia as Apotropaia in Byzantium and the Dar al-Islam," *The Medieval History Journal* 9, no. 1 (2006): 143–66.

[7] Avinoam Shalem, "Afterlife and Circulation of Objects," in *Gifts of the Sultan: The Arts of Giving at the Islamic Courts*, ed. Linda Komaroff, exh. cat. Los Angeles County Museum of Art (New Haven: Yale University Press, 2011), 92–93.

Given the outsize prestige of rock crystal, it is all the more startling (and revealing) that we have a well-documented instance in the eleventh century when it came to be sold on the open market—a truly remarkable event that overturned the world order of artworks until then based on the clear division between preciousness and pricelessness, as carved rock crystals like those kept at the Fatimid treasury were made solely for the royal court and therefore beyond commercial monetary value. The infamous sale—the dispersion of the Fatimid treasures that were brought out from the palace of the Fatimid caliph al-Mustanṣir Bi'llāh in 1068–69 in order to be sold in the markets of Cairo—raised an uproar, as a moment marked by the appearance of the middle-class clientele, the new socioeconomic strata that emerged between the court and the populace.[7]

Additionally, the arrival around the year 1000 on the Mediterranean "market" of superbly carved Fatimid vessels boosted medieval awareness of how objects could play a role as a source of what was considered universal knowledge. As an encyclopedic collection, the Fatimid treasury displayed objects that exhibited complex techniques of manufacture next to the fauna, flora, and fine substances of the cosmos. No less important, the Fatimid treasury, as well as contemporary medieval church treasuries, presented these collections to their visitors as *'ajā'ib*, that is, as wonders and marvels. Displaying excellently carved rock crystals, cut-glass objects of perfect shape and decoration, minutely carved ivories and woodwork, enameled jewelry, and lavish gold embroideries and fine woven silk textiles, the treasuries and collections of the Mediterranean basin were effectively transformed into a site in which categories of beauty and medieval aesthetic criteria were manifested, at the same time as it transformed the treasury space into a global zone in which objects of different cultural landscapes were gathered and exhibited.

Rather than exploit these many and varied interpretive possibilities, older scholarly work on the dissemination of the Fatimid treasury propagated an unfortunate and persistent misapprehension that this volume seeks to correct. The impact and fame of the treasure's dispersal led scholars to use it as a means of dating. They came to assign almost all accomplished Islamic carved objects to the tenth and early eleventh centuries, namely to the Fatimid era. Essays in this volume provide a nuanced corrective to these issues of dating, based on more careful stylistic examination, exciting technical study, as well as a critical reading of modern historiographies on rock crystals (see Kröger, Pilz, Morero et al., and Shalem).

But again, rock crystal was collected as a material of great value. Of mysterious and celestial qualities, and replete with mythical testimonies, crystal acquired a wealth of associated meanings, symbolisms, and legendary qualities (see Buettner and Toussaint). Assigned magical and curative powers, it was eternal ice, representative of purity of light and therefore fitting for sacred spaces and for use in amulets (see Kornbluth, Porter, and Bahrani). Indeed, only with the invention of clear glass in Venice in the fifteenth century (earlier glass was always colored by impurities) was rock crystal eclipsed as a material that could be used to reveal precious contents in precious containers (see Ingeborg Krueger and Gerevini). Thus, if the history of art can be construed as a history of vision, this material was the premier substance to convey the importance of sight. The transparent "screen" through which relics and other objects of value were observed and venerated, rock crystal was a material equivalent to the stuff of the heavens.

One explanation of the celestial qualities of rock crystal may derive from the persistent belief in the material's means of formation—usually understood to be a sudden petrification from water into stone, the formation of a kind of super-hard ice. This petrification clearly differs from the natural, gradual, and constant transformation into a solid substance through which most precious stones were thought to pass.[8] The instantaneous effect of petrification was, indeed, reminiscent of paradisiac and celestial scenes in which rivers of crystal are described,[9] and especially the description of a "sea of glass, like crystal" in Revelation 4:6. It seems likely that, like Lot's wife, the solid transparent sea around the throne of God was suddenly transformed into solid substance at the appearance of the divine. Thus the petrified status of rock crystal might attest to the material's previous proximity to God, a transformative act memorialized in the substance attesting to divine presence. Not only, therefore, does it document the past presence of the holy, but it also records a singular moment—a moment of Revelation.[10]

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[8] Like the long and gradual processes through which diamonds (congealed smoke) and rubies went through. See Muḥammad ibn Aḥmad al-Bīrūnī, *The Book Most Comprehensive in Knowledge on Precious Stones: Al-Beruni's Book on Mineralogy* (*Kitāb al-Jamāhir fī ma'rifat al-jawāhir*), trans. Hakim Muhammad Said (Islamabad: Pakistan Hijra Council, 1989), 70–71, 79.

[9] See Avinoam Shalem, "Fountains of Light: The Meaning of Medieval Islamic Rock Crystal Lamps," *Muqarnas* 11 (1994): 1–11, esp. 4–5.

One last important quality of the gem demands our attention. Its transparency is a quality that, as above, encourages it to be used as a screen or container that protects but also reveals what lies behind/inside it. For Western art historians, particularly, the relic-viewing experience remains an important issue in research, especially on account of the many objects preserved in church treasuries (albeit so often the vessels containing the relics came from Islamic courts and their artisans). Rather than the unmediated vision of a relic that is so often assumed in medieval and modern descriptions, relics encased in crystal are very often difficult to see. The experience, rather than clear sight, should properly be called a "vision effect." Similar to the way Roland Barthes describes "l'effet de réel," or the "reality effect," of some kinds of literary description, vision as experienced by looking through crystal is not unmediated or unobstructed. In the carefully controlled relic-viewing process orchestrated by the Christian church, the experience might include elements such as distractions and Barthes' "useless details," in an attempt to "void the sign" (deny the very act of representation), in order to simulate the experience of a "pure encounter with an object and its expression."[11] That is, although reliquaries and precious containers take a wide range of inexplicable shapes and include opacities that are not conducive to unmediated viewing, in their materials and shapes and especially their use of crystal, they nonetheless create an experience that enhances the viewer's sense of encountering the divine (see Bissera Pentcheva and Toussaint). Furthermore, because, as above, crystal was thought of as paradisiacal in origin or even heavenly in its very nature, it was believed that the stone allowed a clearer and more true sight even if not perfectly transparent.

In the particular case of viewing relics, there is no doubt that *physical viewing* was essential and the materiality of rock crystal is a key factor in creating this constructed and delimited effect. The stone is of course clear in some instances, but in other cases it is cloudy, has inclusions, fractures, bubbles, and "clouds," some of which are suggestive to medieval viewers of heavenly mysteries, but all of which also surely obscure and redirect vision. Its very structure as a crystal is mysterious and beautiful (see Crowley and Buettner). Catching light, the stone seems to glow from within. Although rock crystal is usually said to be "white" or clear, stones of color are sometimes identified as particularly significant or valuable (see Pentcheva and Kornbluth). These perceived material qualities and actions of the stone, however, have also led to a metaphorical or visionary understanding of rock crystal as an aid to sight and other effects (see Galvez), a particularly striking example being when the fourteenth-century German mystic Henry Suso is instructed by an angel to look into his chest to see his heart, which lies behind a "crystal."[12]

Objects created with these qualities in mind vary remarkably. Lamps, especially Islamic examples, were often made of crystal to project and amplify light.[13] The iconography of the object might also multiply meanings and effects—fish on lamps emphasize a former watery state, a lamb on a liturgical vessel evokes the idea of transubstantiation (see Fricke). Large clear African pieces of crystal could be very purposefully used to proclaim an unusual *clarity* and *certainty* of vision, as in the series of Holy Thorn reliquaries created by the French king Louis IX, who wished to assert that he was distributing individual and powerful thorns while retaining the circlet of the Crown of Thorns in his royal chapel.[14] Pebble-like crystals gathered from northern riverbeds and tumble-polished could stand in as lenses and work as an "oculus" of sorts (see Benfeghoul).

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[10] On the idea of the "frozen gaze" in front of the divine, see Avinoam Shalem, "Resisting Time: On How Temporality Shaped Medieval Choice of Materials," in *Time in the History of Art: Temporality, Chronology, and Anachrony*, ed. Keith Moxey and Dan Karlholm (New York: Routledge, 2018), 184–204, esp. 194–97. See also Jean-Luc Marion, *God Without Being: Hors-Texte*, trans. Thomas A. Carlson (Chicago: University of Chicago Press, 1991), 14–15.

[11] The phrase "vision effect" from Cynthia Hahn, "Reliquaries and the Boundaries of Vision: Relics, Crystals, Mirrors and the 'Vision Effect,'" in *Semantics of Vision: Art Production and Visual Cultures in the Middle Ages*, ed. Raphaèle Preisinger (Turnhout: Brepols, forthcoming); Hahn cites Roland Barthes, "L'effet de réel," *Communications*, no. 11 (1968): 84–89, quotes at 85 and 89.

[12] "The angel said to him, 'Look with joy into yourself and see how dear God plays his games of love with your affectionate soul.' He quickly looked inside and saw that over his heart his body was as clear as crystal, and he saw in the middle of his heart eternal Wisdom." *Henry Suso: The Exemplar, with Two German Sermons*, ed. and trans. Frank Tobin (New York: Paulist Press, 1989), 73.

[13] Shalem, "Fountains of Light."

[14] See Cynthia Hahn, "The Sting of Death is the Thorn, But the Circle of the Crown is Victory over Death: The Making of the Crown of Thorns," in *Saints and Sacred Matter: The Cult of Relics in Byzantium and Beyond*, ed. C. Hahn and Holger A. Klein (Washington, DC: Dumbarton Oaks; Harvard University Press, 2015), 193–214.

As gem and crystal, the convex shape magnifies and fortifies the viewer's gaze, and like an architectural oculus at the peak of a dome, the lenticular shape promotes celestial vision.[15] Furthermore, typically set with a metal backing of silver or gold, cabochons can recall the medieval convex mirror. Not only in Islamic optical theory, as in the treatises on vision by the Muslim thinker Alhazen,[16] but also in biblical understanding, the mirror amplifies sight: in II Corinthians 3:18, "But we all … beholding as in a mirror the glory of the Lord, are being transformed into the same image from glory to glory, just as from the Lord, the Spirit." Gazing into crystal balls, an ancient idea that survived into the Middle Ages, is just one more example in the West of the material's usage to promote the vision of the divine.

A Scottish reliquary pendant of circa 1200 in the British Museum may serve as a fitting conclusion to this essay and an exemplification of the many effects of rock crystal that have been discussed (fig. 1).[17] On its face the pendant exhibits a very clear dome-shaped crystal that magnifies and presents a wooden cross, framed successively by a thin gold border and a "cushion" of wired pearls. Remarkably, although as per its inscription this small pendant contained a relic of the True Cross, the tiny relic fragment is hidden and sealed inside the object. On the jewel's visible surface, instead, we are presented with a "vision effect." The pearls, like so many swelling and glowing stars or incandescent clouds, push in around the cross to create a celestial field. Rather than clarity, and despite the excellent clear crystal, the vision through the cabochon is somehow tinged by an atmosphere, a "pearly" light. As an active material, the stone catches light and reveals its (minor) imperfections. This striking effect is not what one would expect of a tiny object but instead induces a sense of expansion. The end result is a simulation, even an act of enabling of cosmic vision.

Ultimately, even or perhaps particularly, this tiny example justifies the importance of our endeavor in studying the unique substance of rock crystal. Rock crystal is a gem of outsize importance. So powerful, so treasured across the medieval and early modern world, it was imbued with a range of qualities in the ancient and medieval imagination that exceeded the possibilities, the agency, and power of any other natural material. It was a wonder, clearly understood as a precious and unique divine gift.

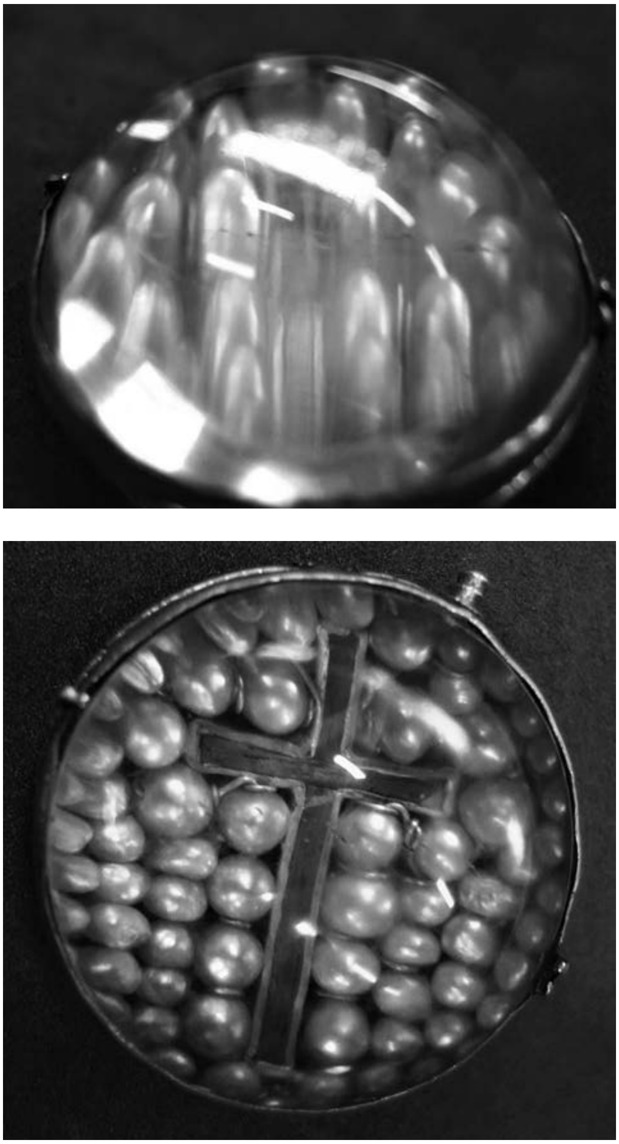

Fig. 1 Two views of the Scottish pendant ("reliquary pendant"), ca. 1200. London, British Museum, inv. no. 1946,0407.1.a

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[15] Hahn, "Reliquaries and Boundaries."

[16] On the concept of the mirror as holding the *ymago*, see A. Mark Smith, "What Is the History of Medieval Optics Really About?," *Proceedings of the American Philosophical Society* 148 (2004): 180–94, esp. 191.

[17] The inscription reads: + *SEXPSTI:NINIAN / ANDREEX MAVRIS:GEORGII:MERG:D(?) NOR:F(?)ERG:B(?)O / NEF(?)SE:MARIE.* (Of Jesus Christ, of Ninian, of Andrew of the Moors, of George, of Margaret [?], of Norbert [?], of Fergus [?], of Boniface [?], of St. Mary.); AN319176001. See the British Museum website, http://www.britishmuseum.org/research/search_the_collection_database/search_object_details.aspx?objectid=44467&partid=1&searchText=rock+crystal+medieval&fromADBC=ad&toADBC=ad&numpages=10&orig=%2fresearch%2fsearch_the_collection_database.aspx&currentPage=2; see also *Treasures of Heaven: Saints, Relics and Devotion in Medieval Europe*, ed. Martina Bagnoli et al., exh. cat. Cleveland Museum of Art et al. (New Haven: Yale University Press, 2010), 131, no. 72.

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