

Dark Transparencies: Crystal Poetics in Medieval Texts and Beyond

MARISA GALVEZ

RECENT STUDIES ON MEDIEVAL STONES have examined the lithic efficacy and agency inherent in the lapidary tradition dating back to Greece, a tradition that continues in writings about mineral *virtus* in the Middle Ages through authors such as Isidore of Seville and Albertus Magnus. In particular, attention has been paid to how inanimate objects serve as a topos for exploring the engagement of humans with non-humans.¹ Critics such as Bill Brown, Jeffrey Jerome Cohen, and Kellie Robertson have challenged the Heideggerian notion of inert “worldless” (*weltlos*) objects impoverished of animal captivity (*Benommenheit*) or human apprehending (*Vernehmen*) by arguing that such objects or things “matter” and have the potential to be “world-forming”: in Cohen’s assessment, humans are not the “world’s sole meaning-maker,” and Brown argues for “things” as impenetrable objects that resist human utilization for concepts and instead produce a “force as a sensuous presence.”²

This essay proposes a different reading of stones that draws upon these ethical and theoretical reflections on things and objects. A comparative reading of secular medieval literature of the twelfth and thirteenth centuries left out of these studies can nuance our modern preoccupation with things as challenging a human-centered view of the world. Courtly texts that focus on erotic desire show that medieval readers understood the hermeneutic tension between an object such as stone that could hold meaning for the human interpreter, and a formless, transforming thing with various physical effects in particular moments or through time—what I shall call a “substantive” materiality. In this literature, moments when one particular gemstone, rock crystal, should symbolize a transparency associated with universal knowledge are the same moments that are the least transparent. Rather than standing as a symbol of crystalline wisdom, crystal disrupts contemporary frameworks of thinking about stones established in lapidary and iconographic traditions by allowing for the perceived sensual pleasure

of a formless, material substance. In secular representations of rock crystal, one can see lapidary and religious symbolism in tension with an engagement with crystal that registers the heterogeneous experience of various effects—a “dark transparency.”³ In examples that range from descriptions of palaces in the Latin east to vernacular courtly romance and lyric (*Le Roman de la Rose*, Gottfried’s *Tristan*, troubadour lyric), crystal acts as a medium for illusory effects and multiple sensory experiences that often celebrate carnal love. The pursuit of spiritual knowledge mediated by a gemstone becomes a different kind of experience when associated with the crystal effects of water in Solomonic architecture, or crystal as visual and sensual effects mediated by erotic desire in courtly romance or lyric: an engagement with a crystalline substance that animates physical pleasure, corporeality, and love.

In such courtly scenes that involve tropes concerning the quest for the inaccessible, beloved lady, crystal manifests a transformative, transmutative, and fluid nature that resists being reduced to a state of reification: a philosopher’s stone, the duality of the mirror, a state of knowledge and individual metamorphosis symbolized by the crystal as object. Rather, crystal as a *substance* facilitates the sensory perception of diverse physical effects. The pleasure of looking at crystal urges the reader to experience crystal just as its protagonist does—to create what Marie de France would call a *surplus* of sense, the excesses of meaning one cannot talk about but provided by the reader—to let sense or wisdom co-exist and even be subordinate to the sensual and pleasurable experience that crystal allows.⁴ In the medieval courtly tradition, linguistic accounts and descriptions can render the “alterity” of a thing as a phenomenological situation even when a stone should stand for something allegorical; these descriptions indicate what Brown (relying on Theodor Adorno) would call “a somatic moment” of crystal before becoming “a fact of consciousness.”⁵

This kind of crystal experience might be surprising given theories of crystal well established by the twelfth and thirteenth centuries in Western Europe. In medieval literature, we often encounter a religious iconography and lapidary symbolism of rock crystal that follows the exegesis of biblical passages. Crystal’s transparency, hardness, and exceptional ability to carry light among precious metals and stones made it a stone generally held to symbolize purity of faith or innocence. For example, Revelation 21:11 describes New Jerusalem as “having the glory of God, and the light thereof was like to a precious stone, as to the jasper stone, even as crystal.” During late antiquity it was thought that the transparency of crystal manifested transcendence, and its absolute purity preserved the eternal light of the Empyrean.⁶ Gregory the Great saw the firmament as having “the appear-

ance of crystal terrible to behold” (Ezekiel 1:22), as crystal hardened from water stands for Christ made incorruptible through his Resurrection. The art historian Geneva Kornbluth has shown how the iconography of Carolingian engraved gemstones that feature crystal follow the iconography of the material: the purity of crystal signifies the divine origins of Baptism, the Incarnation, and the Passion.⁷

Classical and Christian cosmologists described crystal’s heavenly origin, which was related to its alleged origin in water and co-existence of coldness and heat in primordial matter. For example, elaborating on Empedocles’s idea that the firmament consists of air “frozen” by ethereal fire, later Christian cosmologists surround the cold Crystalline with the hot Empyrean, (the cold *crystallinum* supports the hot Empyrean and explains the presence of cold and heat in the firmament).⁸ *Krystallos*, composed of the Greek words *kryos* “cold” and *systellein* “to draw together,” was as a “coldness drawn together” a kind of ice, and, because of this resemblance, possessed particular performative powers: it could preserve or generate cold as well as emit light as a transparent body.⁹ Further, throughout antiquity crystal was valued for its hardness and coldness as well as its ability to allow the passage of light. In his appraisal of the usefulness and value of stones and minerals in his day, Pliny the Elder values rock crystal above all because of its fragility and believes it to be pure water in a frozen state: “a kind of ice . . . formed of moisture from the sky falling as pure snow.”¹⁰ Jerome, Augustine, Isidore, Bede, and Rabanus Maurus give the same explanation about its formation.¹¹ As a transparent quartz, crystal has the ability to seize sun’s rays and set fire to leaves (*Etymol.* XVI.xiii.1–2).¹² Albertus Magnus and writers of optical science such as Roger Bacon understand how crystal can reflect sunlight to produce a rainbow (*Iris, De mineralibus*, II.ii.8). As such, it is understood as a hexagonal prism that can refract light.¹³ The physical properties of crystal—its hardness and transparency, and capacity to generate heat or refract the heat of the sun—make it exceptional as a gemstone, and explain its iconography in Western Christianity and link to the symbolism of the mirror.

The iconographical tradition of crystal in religious art coincides with the theological and literary tradition of mirrors and conversion. As Herbert Kessler explains, crystal was “a material commonly used for mirrors” and thus “acquired the same symbolic meaning . . . reflecting the person looking into it, it could engage destructive self-admiration; pointing to higher things, it could elevate sight beyond what was present.”¹⁴ In his First Letter to the Corinthians 13:12–13, Saint Paul invoked the mirror as a metaphor for carnal versus spiritual vision, and this duality of the mirror extended to crystals: “We see now through a glass [mirror or *speculum*] in a dark man-

ner; but then face to face. Now I know in part; but then I shall know even as I am known.” One crystal intaglio (crystals with designs sunken below the surface of the background plane) in Kornbluth’s study features Paul as a preacher miraculously converted from his former life as a persecutor of Christians,¹⁵ and specifically his conversion to the spiritual vision symbolized by the crystal-mirror. In this object one can see the purity of the crystal merging with the dual vision of the *speculum* which reflects at once the imperfect earthly realm and things beyond, giving true access to knowledge of the world.

Crystal appears in heightened moments of subjectivity in courtly texts of the twelfth and thirteenth centuries, and readers have productively applied these hermeneutic traditions.¹⁶ However, a comparative examination of these secular texts shows how they deliberately confound the form of crystal and foreground its affects as a material whose form changes according to the sensory perception of the viewer. This *substantive experience* of crystal vexes the conventional subjectivity of human perception upon stones: a human agent over a passive nonhuman thing, an ethical and metaphysical relation that has been taken up by various critics.¹⁷ Mediated by desire and informed by a new conscience of optical science, in *Le Roman de la Rose* crystalline substance enables an ambivalent experience between man and the world that relates to the experience of watery effects in descriptions of palace fountains. In Gottfried’s *Tristan*, the narrator’s fantasies about the crystalline bed foregrounds the physical activity of lovemaking within a framework of transcendent love, and finally in Bertran de Born’s *canço*, the crystal teeth of the desired lady celebrates erotic, sensual love rather than a vision of a distant, idealized beauty.

In exploring the discourse of lithic agency and how secular medieval texts might present another view of objects as precisely nonobjects but substances, it is necessary to engage the Aristotelian physical world inherent in the lapidary tradition, where stones can possess medicinal powers and limited self-motion among other properties. For example, in his *De Mineralibus*, Albertus Magnus explains the powers of precious stones using Aristotle’s concept of form: form holds matter together and is the cause of its activities. Depending upon the “mixture” of their matter, stones can be more or less potent; moreover the specific form of individual stones is mortal (*De mineralibus*, I.i.6; II.i.4).¹⁸ Given this Aristotelian-based understanding of nonhuman agency in gemstones, in courtly descriptions concerning fountains or crystal as a modifier (a crystal bed, or crystal teeth), one sees an emphasis upon crystal’s properties as a “body subject to movement and simple transmutation” rather than a stone (*De mineralibus*,

I.i.6). The uncertain form of crystal or the subject's physical and sensory engagement with the heterogeneous effects of crystal consequentially question the nominal status of the unified stone: for example, as we will see in the fountain scene in *Le Roman de la Rose* crystal exists as simultaneously one and two crystal(s). As the lover does not know what he perceives, and is moreover unsure of the nature of the reflections in the crystal in the water of the fountain, crystal here becomes a figure for questioning the shaping of perception by desire. Forms themselves shift and change according to the sensory and affective status of the perceiver, in turn privileging a material or substantive reading of crystal over a reading of the stone qua stone or allegorical stone. Both perceiver and crystal substance, as bodies in motion, trouble a static relation of unified subject and object. Notably, the developments of optics contemporary with these courtly texts correlate with an experiential reading of crystal. As crystal is associated with refractive vision or with the physiognomy of the eye (the crystalline humor), in Guillaume de Lorris's part of *Le Roman de la Rose* (ca. 1225–30) this new understanding of the visual faculty complements a substance-oriented interpretation of the crystals in the celebrated fountain scene.

Such a substantive and comparative reading of crystal—one that focuses on the experience of crystal as substance rather than allegorical stone—can provide insight into and complicate the medievalism of modern architecture. Although an aside, my essay implicitly responds to an architectural discourse that has fundamentally shaped concepts of crystal. Like medieval authors of secular texts, Expressionist architects and writers of the twentieth century were preoccupied with crystal as a means to explore tensions among sensuality, perception and knowledge, or how an object could embody a paradoxical experience of desire and self-transcendence. They were inspired by the iconography of ancient and premodern literary descriptions of glass, crystal, precious stones, and reflective materials whose translucence and reflective properties symbolized transmutation and divine wisdom. In the “architectural fantasies” of the glass-crystal metaphor in Biblical, Islamic, and secular literary sources, Expressionists envisaged a glass architecture that would signify a transformed society.¹⁹ These architects were attuned to the sensory effects of crystals, “dark transparency” effects that medieval authors were also aware of and that this essay aims to make visible. They were inspired by the glass-crystal metaphor that indicated the translucence and playful reflective effects of crystal and water in various sources: the biblical description of King Solomon's palace that emphasizes its reflective qualities of gold and water (1 Kings 6:30, 1 Kings 7:23) descriptions of the floor overlaid with gold, and a font that looks like a

“molten sea”, becoming in later Arabic and Jewish legends a palace of glass;²⁰ the gold streets of the New Jerusalem that are compared to transparent glass in the Revelation of St. John (Revelation 21:11); as well as the idea of precious stones as carriers of divine light seen in religious objects and secular Grail legends. In Wolfram von Eschenbach’s *Parzival* (ca. 1205–1214), the Holy Grail is a precious stone of pure essence (“*reine*,” *Parzival* IX: 469.4)²¹ that contains Gnostic and alchemical overtones of darkness and lightness in that it emits divine light even as an incorruptible material of the earth.²² Glass admits and reflects light but also “hides strange conceptual spaces and irrational passages.”²³ According to Rosemarie Haag Bletter, the crystal iconography that appears in Expressionist architecture and writings—the duality of crystal, the “dark transparency” of reflective glass, and the mystical Grail quest—corresponded to “the quasi-religious but individualized quest of the medieval alchemist, for whom the philosopher’s stone, a personalized grail, was to bring the discovery of transubstantiation, a transformation of materials promising self-knowledge and individual metamorphosis.”²⁴ Being aware of the modern reception of crystal based on medieval texts makes visible a long-standing experiential, and architecturally oriented reading across various texts. However this essay discusses other accounts of medieval crystal left out of this architectural history.

CRYSTAL AS SUBSTANTIVE EXPERIENCE: THE FOUNTAIN SCENE IN GUILLAUME DE LORRIS’S VERSION OF THE *ROMAN DE LA ROSE*

With this architectural history in mind, medieval descriptions of fountains in palaces privilege crystal effects over crystal symbolism. Western medieval accounts of palaces in the Latin East or Islamic Spain follow the Solomonic architectural tradition in the illusory effects of glass and crystal described above. In one tenth-century account by Abū Mansūr, Solomon built a palace of crystal that elaborated upon the various Jewish and Arabic legends that told of Solomon as a patron of glass/crystal architecture—the evocation of shimmering water and illusory effects emphasized his supernatural powers. In such apocrypha inspired by the biblical account of King Solomon’s Temple in Kings, a glass floor suggests a watery surface, and the king appears to sit in a pool of water.²⁵ Crystal evokes the translucence and fluidity of water in movement. Descriptions of palace fountains in the Latin East inspired by the figure of King Solomon and his palace, as well as analogue accounts of Islamic architecture such as the eleventh-century Alhambra provide a paradigm for interpreting crystal. Even as they certainly represent the material opulence of the palace, and adhere to the Biblical and

Koranic tradition of crystal's reflective and translucent qualities as symbolizing "transcendence, spiritual light, or divine wisdom," they also unmoor crystal's physical properties as a substance from a symbolic value.²⁶

For example, in his early thirteenth-century *Journey in the Holy Land* Wilbrand of Oldenburg, canon of the church of Hildersheim, describes the palace of John of Ibelin in Beirut; after noting how the pavement of the palace simulates water, he sees:

In the middle of the hall, at the central spot, is a pool lined with variegated marble . . . in the centre a dragon, which seems about to devour the animals depicted there, emits a jet of crystalline water [*crystallinum quendam fontem parturit*], pouring it forth in such an abundant quantity that in hot weather, dissolving on high, it may humify and cool the air . . . the same water, resonating throughout the pool and being received into the slenderest of channels, lulls to sleep by agreeable murmurings its lords who sit near by. I would willingly sit by it for all my days.²⁷

An Islamic poet active in eleventh-century Sicily, Ibn Ḥamdīs, describes crouching lions placed upon the edges of a palace pool in Islamic Spain, spurting water:

Lions, living as lords in their lairs / roaring, they leave its murmuring waters
And it was as if gold covered their bodies / and melted the crystals [in Arabic, *billawr*] in
their mouths²⁸

In both examples, the crystalline appearance of water in the fountains represents light refraction, transformation of substances (water into vapor, crystals melting into water from the heat of molten gold), and is paired with images of animalistic consumption and the sound of liquid movement—murmuring. Like the animals who emit and consume crystal, those by the fountain consume the refraction and disembodiment of water—real or perceived—as a pleasurable, sensual experience of sound and touch (murmuring waters, humidity cooled, melting heat) and visual playfulness (molten gold melting crystals). The pleasurable experience comes from the multiple effects of water seen *and felt* in formation and deformation as crystal. Architectural descriptions allude to crystal's properties in a purely sensual fashion, and relate a synaesthesia—water compared to crystal—that would later inspire the Expressionists.²⁹

While there are many interpretations of the celebrated fountain scene in the thirteenth-century *Le Roman de la Rose* (ll. 1423–1652)³⁰ like the scenes of Islamic court palaces, the passage includes the pleasure of viewing crystals in the fountain. Despite its allegorical framework, the romance presents an experience of a person enjoying the sensual effects of a crystalline fountain. This moment afforded by the crystals, one that allows for a pluralistic experience due to the nature of the crystals as simultaneously one

and two, constitutes a substantive experience of crystal(s) in which sensory perception and desire are essentially linked.

In his quest for the rose, the Lover comes upon a fountain where Narcissus died pining after his own image reflected in the water. After hesitating, the Lover approaches the fountain and, gazing into it, sees two crystals at the bottom that reflects many colors and the entire garden. The fountain's association with Narcissus in an *exemplum* previous to the crystal encounter, and the fact that the spring is later called a perilous mirror ("*li miroërs perilleus*," l. 1569), invites an allegorical reading of this scene. I have italicized the most pertinent phrases for discussion in the translation to aid the reader:

El fonz de la fontaine aval
 avoit .II. pierres de cristal
 qu'a grant entente remirai.
 [...]
 Quant li solaus, qui tot aguiete,
 ses rais en la fontaine giete
 et la clarté aval descent,
 lors perent colors plus de cent
 ou cristal, qui par le soleil
 devient inde, jaune et vermeil.
 Si est cil cristaus merveilleus,
 une tel force a que li leus,
 arbres et flors, et quan qu'aorne
 le vergier, i pert tot a orne.
 Et por la chose feire entendre,
 un essample vos voil aprendre :
 ausi con li mireors montre
 les choses qui sont a l'encontre
 et i voit l'en sanz couverture
 et lor color et lor figure,
 tot autresi vos di por voir
 que li cristaus sanz decevoir
 tot l'estre dou vergier encuse
 a celui que en lève muse;
 car torjors, quel que part qu'il soit,
 l'une moitié dou vergier voit;
 et c'il se torne, maintenant
 porra veoir le remenant;
 si n'i a si petite chose,
 tant soit reposte ne enclouse,
 dont demonstrance ne soit faite
 con se le ert ou cristal portrete.
 C'est li miroërs perilleus,
 [...]
 Adés me plot a demorer
 a la fontaine remirer
 et as cristaus, qui me mostroient
 mil choses qui entor estoient.
 [ll. 1535–1604]

[Down at the bottom of the spring were *two crystals* [.ii. *pierres de cristal*] which I gazed at most attentively . . . when the all-seeing sun sends down its rays into the spring, and light descends into its depths, more than a hundred colours appear in the crystal, which turns blue and yellow and red in the sunlight. *The crystal* [*cristaus*] is so marvellous and has such power that the whole place, with its trees and flowers and everything adorning the garden, is revealed there in due order. To help you understand *the phenomenon* [*la chose*] I shall give you an illustration. Just as things placed in front of a mirror are reflected in it, and their appearance and colour are seen quite plainly, exactly so, I assure you, does the crystal truly disclose the whole of the garden to him who gazes into the water. *For whichever side he is on, he can always see half of the garden, and by turning he is at once able to see the remainder*; [*car torjors, que que part qu'il soit, / l'une moitié dou vergier voit; / et c'il torne maintenant / porra veoir le remenant*]; And so there is nothing so small, so secret, or so hidden that it is not displayed there, as if it were etched in the crystal.

This is the perilous mirror...*I was happy then to linger, admiring the spring and the crystals* [*adés me plot a demorer / a la fontaine remirer / et as cristaus*] which revealed to me a thousand things around me. (24–25)]

The pleasure of the crystals works within the allegorical framework which offers multiple readings of the crystals as a symbolic object: from the crystals as the eyes of the lady or of the Lover (or the Lover's reflection of his eyes in those of the Lady) to the crystals as a mirror for active meditation bringing images to the mirror of the mind: images that can lead to knowledge of the self and the world, or can lead to *luxuria* or the dominance of carnal lust and the corporeal sense over reason.³¹ When the crystals act as eyes or mirrors, the sight of them can signify the transformation of the Lover—the eyes as a poetic figure of the Lady's love (different from the rose). As a positive transformation, the Lover can turn to the proper love object, or as a negative one, the eyes could be the Lover's own eyes and end in the fate of Narcissus.³² This kind of crystal experience, where the crystal becomes a mirror in which the Lover sees himself, ultimately makes him entrapped by *Amour*: upon seeing a reflection of rosebuds, he is overwhelmed with his desire for the rose and not content with just a reflection of roses begins his mad pursuit (“*cele rage*,” l. 1621) for his love object.

While I follow previous interpretations of this moment as one of heightened perception that avoids Narcissistic solipsism, I also want to stress the “marvellous” aspects of the crystal experience as a pleasurable one of movement, light effects, and refraction: this particular moment of gazing at the crystals does not necessarily cohere into a clear instance of subject and object or allegory. The emphasis upon the physical qualities of the crystal material rather than crystal as a stone arises in the uncertain philological status of the crystal as at once one and two (“*cristaus*” the crystal, and “*II. pierres de cristal*” two crystal stones) that has perplexed the poem's critics. The inconsistency arises in that the narrator talks about two crystals and then shifts without explanation to the singular. David Hult and Sarah

Kay rightly argue that this philological inconsistency is deliberate, in that it moves our attention from the object of vision to the visual faculty itself, one where, as Kay elaborates, “subject and object, self and other are fused” in the confusion of what the lover sees: alternatively himself, the eyes of the lady, the garden—the darkness and transparency of a crystal or crystals in the water.³³

Looking more closely at the moment of subject/object fusion, one finds the pleasure of the crystal as a material. It is the Lover’s moment of lingering by the fountain—quite frankly, his bedazzlement—that relates to the sensual experience of crystalline effects seen in the Islamic palace fountains. Before the Lover sees himself and the rosebushes that will eventually lead to the rose however, it is a pleasure for him to remain at the fountain gazing at the crystals (“adés me plot a demorer / a la fontaine remirer / et as cristaus,” l. 1601–3), whose reflections reveal a thousand things around him. Can his sensual admiration of the crystal’s “extraordinary reflective properties”—its refraction of colors and reflection of the world according to the position of the viewer—be untethered from the fountain experience as an allegory of self-perception? As Hult explains, the ambiguity afforded by the reflective properties of the crystal(s) becomes a positive experience of heightened or altered perception of the natural world, a moment where the Lover becomes “the reader of his own experience” as he confronts “the image-making poetic faculty figured by the dream/fountain” (145). I would like to elaborate upon this astute observation of “fictional excess” in this scene with a reading of what I call “substantive excess”: the Lover’s active, phenomenological bedazzlement of the crystal’s physical properties adds to our understanding of the fountain scene by emphasizing the sensual qualities of the experience.³⁴

Even if the crystals as “the fleshly eye” embody the “insubstantial physical world,” they depend on the external light of the sun to produce an image and reflect the physical world rather than the “inner eyes of the heart” (Ephesians 1:18).³⁵ Further, the Lover experiences this phenomenon (“chose,” l. 1551) of the crystals according to his changing position. By untethering the physical experience of the “fleshly eye,” the moment when he gazes at and into the fountain, from the moment of the perilous mirror in which the Lover becomes aware of his reflection, we can view a vision transformed by desire—the crystal as “*yeux regardant . . . un regard transformé par le désir*”—as a sensual (related to carnal desire) and sensory perception (related to the physical qualities) of the crystals.³⁶

The philological inconsistency of the appearance of the crystals, and the shift in tenses that coincides with the crystal(s) complicate the allegorical

interpretation. The significance of the scene lies not only in the ambiguity of what the Lover actually sees but of *how* he is seeing—an ambiguity that constitutes more than just a mirror reflection.³⁷ This deliberate crystal/mirror coupling—suggesting the mirror or various “eyes” interpretations while leaving the absolute sense open-ended, consistent with Guillaume’s part of the *Roman*—is a first step to redirecting our attention to an experiential reading of crystal in line with architectural descriptions of crystal’s effects. Hult is right to call our attention to the fact that crystal in the singular is used with the present tense to describe the general properties of the fountain/crystal (ll. 1536–47), and that this shift indicates the reflecting and refracting effects of the crystal in the water as “atemporal and independent of the Lover’s experience” (279). To this point I add that the shift from the singular back to the plural and past tense of the narrative account, indicating the Lover’s unique experience of the “crystals” (“Adés me plot a demorer / a la fontaine remirer/ et as cristaus, qui me mostroient [...], I was happy then to linger, admiring the spring and the crystals which revealed to me a thousand things around me, ll. 1601–3) indicates the Lover’s sensory perception of the crystals, the pleasure of the visual distortion, similar to the Solomonic Ibelin fountain. The philological duality signifies the irreducibility of the crystal’s physical status and effects—its aspect as an atemporal phenomenon (“*chose*”) and as two objects at the bottom of the fountain. In the brief moment that the Lover gazes at the fountain and enjoys the crystals, is it not possible that he experiences both aspects of the crystal: as one—its physical effects—, and as two—objects that allude to a moral meaning? Or that the Lover gazes deep into the fountain and sees two crystals, and also moves around and sees different things in the crystal?

Moreover, the “thingness” or “*chose*”-ness of the crystal is put into question in this experiential reading, to the point that the human subject cannot completely use the silent nonhuman object for his own purposes. The pleasure of the crystals is constituted in a paradoxical situation in which the physical effects of the ambiguously formed crystal and uncertain view of the narrator maintain autonomous positions; in this substantive experience these positions avoid the active-passive relation often seen in the stories that moralize stones, or in Michel Serres’s discussion of “*choses*” as things admitted to reality by humans.³⁸ The uncertainty of the *chose* makes it difficult for us to see the narrator as creating or controlling the thing; rather, what dominates is the heterogeneous sensory experience of the crystal(s).

Refusing a stable nominal status, crystal operates as a “*chose*” or phenomenon acting not just as a mirror of self or other but as substance for multiple perceptions.³⁹ Crystal reflects different things according to the moving gaze

of the perceiver and the evanescent manner in which the sun penetrates its rays into the crystal in the water. The crystal might mirror the garden, or, seen allegorically, reveal wisdom for those with heightened spiritual perception. Yet the fact that the narrator can move around the crystal to see different things, and can look in the water and see many things remind us that the experience (“*chose*”) of the crystal is one mediated by the changing view of the narrator, and how the sun penetrates the water and the crystal (“for whichever side he is on, he can always see half of the garden, and by turning he is at once able to see the remainder”). Here crystal acts as a substance that facilitates experience and self-interpretation, and also allows for a pleasurable experience of different physical effects. Rather than an object, this crystal resists the medieval *speculum* of truth or falsity.

The irreducible physical aspect of crystal—its physical properties and pleasurable effects—invites a reading of crystal qua crystal, as a sensory experience that does not result in spiritual transcendence. Nor does Guillaume reduce the Lover’s experience of the crystal to a perilous mirror of the carnal eye. Instead Guillaume complicates figural crystal by foregrounding physical effects, subjective movement in space, and the changing appearance and status of the crystals in the water. Thus one can untether the physical properties from an allegorical or even narrative function in two ways. The irreducible duality of the philological/temporal situation of crystal translates the physical properties of the crystal as substance; and the experiential active quality of the Lover’s admiration of the crystal(s) represents the Lover’s appropriation of the physical properties as a pleasurable (and not morally negative) experience. Despite the story’s return to the topos of the mirror directly after this moment, and a shift in the narrative mode from present to past, this experiential reading of crystal accounts for the pleasurable, physical perception inherent in what previous critics have seen as the unstable subjectivity of this scene.⁴⁰

Further, this experiential reading of crystal as a substance correlates with the optical theory and visual perspectivism associated with this passage. Stephen G. Nichols and Suzanne Conklin Akbari have demonstrated how much thirteenth-century optical theory influenced the description of visual refraction in this passage.⁴¹ Akbari applies William of Conches’s use of optical phenomena for allegorical interpretation to explain how the effect of the sun hitting the crystals in the water produces a rainbow of colors; an allegory of vision occurs where the poet passes from a reflected vision to a refracted one, produces a multiplication of the self and the object of his desire.⁴² Nichols discusses how Roger Bacon (ca. 1215–ca. 1292) in his *Perspectiva* distinguishes between the perspectival physics of vision and the “contin-

gent, situational, subjective, and therefore highly variable” visual judgment that results from any experience of sight.⁴³ Using geometrical diagrams to illustrate how the eye processes images of an object arriving from different angles, Bacon emphasizes how what one sees depends on the position of the viewer in relation to the object. The eye might focus on one image of an object whose rays are stronger than others because of its perpendicular angle for instance, blocking out other rays that arrive from acute angles.⁴⁴ The facticity of these angles of perception, however, does not prevent the viewer from focusing on weaker images as a visual judgment and experience shaped by psychic interference, as implied in his description of the processing of stronger and weaker images: “and since perpendicular species [likenesses] are arranged distinctly and in proper order on the surface of the visual organ, therefore distinctions [among the parts of the visible object] can be made.”⁴⁵ This distinction of visual judgment can be applied to the fountain scene: the lover’s eye sees the crystal reflect and refract the sun and objects in the garden, yet what the lover sees in the crystal in the water depends upon his physical position, how he processes the different images he sees reflected and refracted in the crystal, and upon what he chooses to focus.⁴⁶

Moreover, Bacon’s observations about the indeterminacy of visual perception—how the individual perceiver interprets what he sees as an image of the objects before him rather than the unchanging nature of perception—corresponds to the multiplication of likenesses (of the garden, the lady, the narrator) that the crystal occasions.⁴⁷ Bacon observed that visual perspective was a sensual processing of coded visual data, “species” or images that are material beings encoded with data from the object whence it comes.⁴⁸ In his discussion of the link between Bacon’s perspectivism and hermeneutics with significant critical results, Nichols explains how visual perspectivism is the sensory processing of a “text” (coded likenesses of the object) “prone to error and misprision.”⁴⁹ Following this idea, it seems worth asking if Guillaume allows the poet/reader to pause and linger with the Lover by the fountain, not only to make a point about the possibility of morally dangerous misprision but to dwell on the pleasurable aspects of a physical perspectivism through crystal—in a way similar to the sensory effects of the Solomonic fountains.

THE CRYSTAL BED IN GOTTFRIED’S *TRISTAN*:
SYMBOL OF LOVE, LOCUS OF PLEASURE

Just as the crystal in the *Rose* appears as an experiential substance that occasions a “*chose*” or phenomenon rather than results in a “*dinc*” [*Ding*,

thing]—the Holy Grail as a precious stone in *Parzival*—,⁵⁰ similarly the crystal bed in Gottfried von Strassburg's *Tristan* of the early thirteenth century cannot be reduced to a symbol or stone of transcendent love. Gottfried's commentary makes the crystal bed in the grotto a platform for physical pleasure and, like the fountain scene of the *Rose*, is another example of sensual interaction with crystal as substance despite the narrator's suggestions that the crystal bed symbolizes transcendent love.

The emphasis upon sensual experience is set up from the beginning, where, even before they eventually consummate their love on the crystal bed of the Goddess of Love, the narrator describes the lovers as feeding on their desire for each other as exiles in the grotto. For Tristan and Isolde, love is self-sustenance:

si sâhen beide ein ander an,
 dâ generten si sich van.
 der wuocher, den daz ouge bar,
 daz was ir zweier lîpnar.
 si enâzen niht dar inne
 wan muot unde minne.
 (16815–20)⁵¹

[They looked at one another and nourished themselves with that! Their sustenance was the eye's increase. They fed in their grotto on nothing but love and desire. (262)]

The diction of the lover's carnal appetite for each other is framed by the symbol of the dark grotto suggestive of the Gnostic and alchemical traditions of divine light in incorruptible earth. The spark of divine light in the darkness of earth follows the mystical dualism of the Grail legends such as *Parzival* that depicts the Holy Grail as a precious stone dislodged from Lucifer's lance and then hidden by Adam in a cave.⁵² Here this dualism becomes the courtly tradition of the crystal bed in the grotto, symbolizing the pure and transparent love of illicit lovers:

Daz bette inmitten inne
 Der cristallinen minne,
 daz was vil rehte ir namen benant
 er haete ir reht vil rehte erkant,
 der ir die cristallinen sneit
 z'ir legere und s'ir gelegenheit.
 diu minne sol ouch cristallîn,
 durchsihtic und duchlûter sîn.
 (16976–84)

[At the center, the bed of crystalline Love was dedicated to her name most fittingly. The man who had cut the crystal for her couch and her observance had divined her nature unerringly: Love should be of crystal—transparent and translucent! (264)]

While the transparent and translucent crystal bed signifies the pure and transcendent “crystalline love” of Tristan and Isolde, it is also the physical place of lovemaking. Indeed as critics have noted, Gottfried’s allegorical commentary thinly veils the physical eroticism of the crystal bed, especially the description of the door of the grotto and the method of opening “Love’s House.”⁵³ Here the medium of crystal in the cave facilitates carnal pleasure. Although the nominal status of the crystal bed within the dark grotto is certainly operative, the commentary foregrounds the physical experience upon the crystal bed through a fantasy of expectation. As a locus of physical pleasure in space, it encourages erotic anticipation clearly manifested in the mechanical allegory of movement and action, and is something to be experienced—a “*chose*” rather than an object. The narrator describes the tin lever and the gold latch that gives access to the bed:

sîn andâht mag ein ieclich man
 nâch sînem willen leiten,
 smalen oder breiten,
 kürzen oder lengen,
 vrîen oder twengen
 sus oder sô, her oder hin [...]
 swer aber mit rehter güete kan
 ze minnen wesen gedanchaft,
 den treit binamen dirre haft
 von zine, dem swachen dinge,
 ze guldiner linge
 und ze lieber âventure.
 (17044–57)

[Any man can guide his Intent to his pleasures, narrow, broaden, shorten, lengthen it, free it, or confine it, here or there, this way or that . . . but if a man can set his thoughts to love with a true will, this lever of humble tin will carry him on to golden success and the tender transports of love. (265)]

The tin lever can move in various ways in the latch to access physical consummation. In addition to this active description, the narrator stresses the physical pleasures that await those who enter the grotto and attain the bed by wistfully regretting that although he has “often at times danced there and back . . . even been yoked or bound to the bed of crystal [or in the crystalline yoke],” (“ich bin ze der cristallen /ouch under stunden geweten. / ich hân den reien getreten / dick dar und ofte dan,” 17112–15) he has never had “repose on it” (“ine geruowet aber nie dar an,” 17116, my trans.). Like in the *Rose*, an ambiguity associated with an eroticized crystal material exists within the allegorical structure: the symbolic nature of the crystal bed in the grotto coexists with the physical action *against*, *upon*, or *on* the bed as a physical locus within the grotto; further, the relation between the crystal

material and narrator is deliberately unclear, “cristallen” being an adjective rather than noun.⁵⁴ As with the crystals in the *Rose*, there is an excess of sensory stimulation occasioned by crystal but not fully subsumed by allegory of the crystal bed of Love (or the image of being bound to the bed as a metaphor for the bonds of love). As a durable substance, a surplus, crystal is a vehicle for various sensory pleasures such as repose and lovemaking.

In contrast to this depiction of pure, transcendent love existing in dark matter, pure and earthly love will eventually become segregated in its association with “translucent matter and love” seen in the different abodes of Venus: Chaucer’s *House of Fame* (ca. 1381) depicts a temple of Glass as the temple of Venus while folk legends attributed to the minnesinger Tannhäuser depicts the abode of Venus as the interior of a mountain (Venusberg) (ca. 1300 onwards).⁵⁵ Yet thirteenth-century texts such as the *Roman de la Rose* and Gottfried’s *Tristan* show how dark-transparency crystal elevates love and perception while allowing for sensory perception of physical effects occasioned by the crystal as substance: the dual nature of the *Rose* crystal(s); the physical medium of the crystal bed or the crystal in the fountain; or the phenomenon as the desirous experience of crystal. In the dark grotto, the crystal bed is a place to which one dances, to which one is physically bonded, or upon which one lies upon for lovemaking. Just as the *Rose* allows for a complex sensual experience of heightened self-perception, here the bed of crystal becomes a locus for physical pleasure and hidden fantasy even as it stands for pure, transparent love.

Further, corresponding to the textual process of visual judgment in the optical phenomenon of the *Rose* crystal, here the allegorical reading of the crystal bed—the visual judgment of the crystal bed as object—facilitates erotic fantasy, a perception shaped by desire and position (outside or close to the bed). As an experiential medium rather than transcendent stone, crystal in these texts enables a courtly situation as a paradoxical “*chose*”: readers can interpret a bed of crystal as both earthly and pure love. The architectural structure of the crystal bed within the dark cave produces the experience of physical pleasure as the narrator imagines himself entering the cave and physically bound to the bed. Again, crystal as architectural medium and as substance rather than transcendent object allows for the physical registration of carnal pleasure.

CRYSTAL TEETH: COURTLY LOVE AS SENSORY EXPERIENCE

The *Rose*’s fountain scene reflects the medieval Ovidian tradition of love as a blow to the heart that enters through the eye. Just as the crystals as eyes

can stand for the windows into the lady's soul, they also figure the impression of physical beauty that, entering into the lover's eyes travels to his heart. Further, the lady herself can resemble the precious stone in that she can be distant and cold but emit fire—the lady's image carried by her light that the lover's heart receives through the eye.⁵⁶ Her transcendent beauty and virtue may be compared to crystal's clarity and brightness: Alice Colby describes how in twelfth-century physical descriptions a lady's face, neck, or teeth might be compared to the *claritas* of crystal—a lady possesses a brightness and clarity comparable to a crystal, qualities of beauty based on the influential texts of Pseudo-Dionysus during the twelfth and thirteenth centuries.⁵⁷ Whether used to describe her distant coldness whose effect is felt by the lover's eyes, or her transcendent beauty, the comparison of the lady to crystal occurs in medieval poetry about unrequited love. In such love songs, the poet vacillates between praising and trying to merit her crystalline beauty and criticizing its cold loftiness—she can refuse to grant a just reward for his service as loyal lover.

I end this essay with a discussion of a late twelfth-century troubadour poem that features the image of a beloved lady with crystal teeth as a sensual image of consumption associated with carnal pleasures. In Bertran de Born's *canço* that prominently features eating and the material luxury of the east, crystal cultivates an erotic appetite despite being an image of chaste courtly admiration. Bertran refuses the visual duality inherent in the courtly tradition of the lady's eyes or face as crystal—this image signifying transcendent beauty or cold vanity. Bertran's use of crystal can be productively compared to the poetics of crystal transcendence supported by a new understanding of the physical world seen in Dante's late thirteenth-century *Rime Petrose*. In contrast to the *Rime Petrose*, Bertran's lyrical mode of crystal acts as a medium for the consumption of earthly delights. The lover's consumption of crystal teeth rejects crystal as a symbol of spiritual transcendence. Thus although the crystal experience is different in each of the texts, collectively they illuminate a sensory perception of the crystal that is in tension with the iconographical and lapidary traditions, and demonstrate two different kinds of crystal poetics working within this courtly tradition. Where Bertran uses the image of crystal teeth substantively to embody the carnal pleasure of courtly visual and verbal exchange between lovers, and to imply the pursuit of physical lovemaking, Dante's uses crystal ontologically: through the lyric form of the *Rime Petrose*, he transcends the coldness of the lady that makes his blood crystallize through the creation of a crystal poem.

In troubadour poetry of the twelfth and thirteenth centuries, crystal teeth is a trope for unsurpassed beauty, and the troubadour tries to make himself worthy of her perfection as well as make it clear that he demands reward for his praise and devotion. For example, the troubadour Uc de Saint-Circ describes how his lady's teeth are like crystal in a typical portrait of unsurpassed beauty: her "teeth more white than crystal" ("denz plus blancas c'us cristals") match her worthiness above all women. Raimbaut d'Aurenga praises his lady's "crystal-white colouring" mingled with ruby ("color de robin ab cristal"), but makes it clear that he will not accept unrequited love in return for his service.⁵⁸

Dante transforms this trope of praise for the inaccessible lady into a spiritualized crystal poetics that celebrates an understanding of the cosmos over the temporal and contingent qualities of erotic love. Composed at the end of the thirteenth century, the *Rime Petrose* are a group of four *canzoni* that treat Dante's frustrated love for a lady who is compared to a stone—sometimes a precious stone because of her beauty following the trope of crystal beauty, and other times an ordinary stone because of her coldness towards him. It explores the natural world, and, in its metrical form, Dante seeks to imitate the movements of the cosmos, as we see in this passage from "Amor, tu vedi ben che questa donna" (Love, you see perfectly well that this lady):

Segnor, tu sai che per argente freddo
l'acqua diventa cristallina petra
là sotto tramontana ovè il gran freddo,
e l'aere sempre in elemento freddo
vi si converte, sì che l'acqua è donna
in quella parte per cagion del freddo:
così dinanzi al sembiante freddo
mi ghiaccia sopra il sangue d'ogne tempo
e quel pensiero che m'accorcia il tempo
mi si converte tutto in corpo freddo,
che m'esce poi per mezzo de la luce
là ond'entrò la dispietata luce.

(3. 25–36)

[Lord, you know that in the freezing cold
water becomes crystalline stone
under the mountain wind where the great cold is,
and the air always turns into the cold
element there, so that water is queen
there, because of the cold.

Just so, before her expression that is all cold,
my blood freezes over always, in all weather,
and the care that so shortens my time for me
turns everything into fluid cold
that issues from me through the lights
where her pitiless light came in.]⁵⁹

Dante draws a parallel between the effect of winter in the north and the lady's coldness towards him. The repetition of "*freddo*" or cold, as the final word in six out of twelve lines, stresses the effect of cold on water and then air, and Dante means to metrically and linguistically express the effect of the lady's coldness on him—his blood freezes over as does his thought, "*pensiero*." The lady's cold stoniness towards him makes him turn into crystal, and her cold gaze burns into him with a "pitiless light," referring to the cold and fire of the lady's eye that refuses the light of love in his eyes.⁶⁰

By comparing the process of crystal formation to the coldness of the lady and its effects on his heart, and metrically imitating nature's effects through lyric form (the repetition of *freddo*, the symmetrical analogies), Dante seeks to overcome his unrequited love by lyrically crystallizing his lady's stoniness into a philosopher's stone, transcending his frustrated love by giving it metaphysical transparency: he places it within the context of the divine movements of the cosmos. In this sense, Dante joins the lapidary, iconographic, and courtly traditions to create an entirely new crystal poetics that transcends earthly desire. He creates a poetics that transfigures earthly petrification into the wisdom of crystal as knowledge of the divine cosmos.

In the lyric "Ges de disnar non for'oimais maitis" (From now on, you shouldn't spend a whole morning eating), Bertran de Born uses crystal to signify the sensual pleasures of courtship: good conversation that can lead to more intimate interaction. Like other troubadours, Bertran's praise of crystal beauty in this song does not remain in the realm of visual admiration and anticipates requited physical consummation. In contrast to the other troubadours and Dante, though, he goes farther in his use of the crystalline beauty of the lady in that he gestures at without subscribing to the courtly duality of crystal as vain self-reflection and transcendent beauty. And rather than constructing a transcendent poem of crystalline wisdom like Dante, he maintains crystal as a substance of erotic consumption by associating it with eastern material luxury and gustatory appetite (recalling the lovers in the *Tristan's* cave). Knowing that Dante put Bertran in hell in his *Commedia* for advocating political strife and warfare through his poetry, it is hardly surprising that Bertran would offer a substantive rather than ontological crystal poetics seen in the *Petrose*. In his lyric corpus, Bertran celebrates material and physical engagement—warfare, the pursuit of ladies—as a sensual and erotic experience that proves the worthiness of a lord, while in his *Commedia* (where troubadours such as Bertran and especially Arnaut Daniel are concerned), Dante criticizes such desires as opposed to Christian community and values of *caritas*.

In the opening stanza of his *canso*, Bertran claims that because he has found a lady of highest worth, his joy in her is greater than the pleasures of eating and bodily comfort:

Ges de disnar non for'ormais maitis,
qui agues pres bon ostau
e fos dedinz la carns e-l pans e-l vis
e-l focs fos clars cum de fau.

[From now on, even if you take a good lodging and inside there are meat, bread, and wine and the fire is bright with beechwood, you shouldn't spend a whole morning just eating. (9.1–4)]⁶¹

We might take him at his word as he tells us that he “submits to her as a slave” when she looks at him and he celebrates her manners and conversation worthy of the nicest imperial furnishings:

Ab doutz esgar qu-m fetz et ab clar vis
mi fetz amors son esclau.
E mos seigner m'ac pres de lieis assis
son brun feltr'emperiau,
e-il paraula fon doussa et humana
e-il dich cortes e soau.
E de solatz mi semblet Catalana
E d'acuellir de Fanjau.

[By the gentle look she gave me and her bright face, love made me her slave. My lord had set her dark imperial cushion near her for me, and the conversation was gentle and friendly and the talk polite and sweet. In her hospitality she seemed a Catalan, and in her welcome a lady from Makejoy.]

At first glance Bertran seems to convince us of his restraint and delight in chaste courtly conversation by associating her chaste virtue and beauty with the imperial luxury (“son brun feltr'emperiau”) of a cushion bestowed by Henry II (“mos seigner”) and praising her manners as dignified as those of a Catalan. But in the stanza that follows her crystal teeth give him a joy compared to the joy of Eastern luxury, and crystal becomes medium for him to celebrate the visual consumption of her body that signifies erotic consummation:

Al gen parlar qe-m fetz et al bel ris
qan vi las denz de cristau
e-l cors graile, delgat e fresc e lis,
trop benestan en bliau—
e la colors fo fresca e rosana—
retinc mon cor dinz sa clau.
Mas aic de joi que qi-m des Corrozana
car a son grat m'en esgau.

[By the charming conversation and the beautiful smile she gave me, when I saw her teeth of crystal and her body, slim, delicate, and fresh and smooth, so pretty in her tunic—and her color was fresh and rosy—she locked up my heart. I have had more joy than if someone had given me Khorassan because, at her pleasure, I rejoice in her.]

The “teeth of crystal” image reveals Bertran’s false pretense of restraint. By comparing her teeth to crystal in a manner that becomes a consumption of her body, he refuses the lady as crystal topos and its inherent duality of distant coldness and the inaccessible passion she triggers through her glance. Rather than crystal teeth aligning with transcendent beauty, crystal teeth are situated in a conversational exchange which leads to the visual part-by-part consumption of her body. The allusion to her teeth of crystal leads to a paratactical, serial listing of her body, “e-l cors graile, delgat e fresc e lis” (her body, slim, delicate, and fresh and smooth); this line metrically parallels the supposed restraint from a carnal appetite in line 3, revealing its erotic subtext, “e fos dedinz la carns e-l pans e-l vis” inside there are meat, bread, and wine. Crystal acts as a medium towards erotic intimacy—the word “joi” can have this meaning. “Crystal teeth” brings our attention back to other senses: the glitter of teeth that connects to carnal appetite, and that leads to intimate bodily contact. The reference to Khorossan in Persia, which as gateway to Baghdad for crusaders is a symbol of immense wealth, reinforces crystal’s function here as signifying material and physical pleasures rather than distant love. The teeth of crystal facilitate the joyous consumption of her body like food and material wealth by refusing the specular and ontological status of crystal: knowledge detached from sensual experience. The Khorossan reference also makes us reinterpret earlier references: the imperial cushion as a marker of social status and the luxury that comes with it, and finally “Fanjau” as a pun on the toponym Fanjeaux, “Make Joy,” suggest material luxury and chaste “joy,” but they can also be understood otherwise as erotic consumption/consummation of material and physical pleasures. The opacity of “crystal teeth” as just substance and material flash returns us to Solomonic architecture where we saw crystalline water as an experience of illusory and sensual effects that also “makes joy”. Here “crystal teeth” functions as the phenomenological bedazzlement of the “*chose*” moment of the *Rose* fountain, “making joy” as good conversation that anticipates the pleasure of having a “slim, delicate, fresh, and smooth” body.

Bertran’s present-oriented experience of “crystal teeth” resides in the courtly moment of sensual admiration—of being in her presence in addition to the pleasure of looking at her—and like Tristan and Isolde in the cave that feed on each other’s looks, Bertran’s fixation on teeth directs our attention to a sensual experience that resists visual allegory. Even if one does not read crystal teeth in this way, at the very least the materiality of the

lady's teeth associated with material luxury articulates the value of refined, pure love or *fin'amor* as a lyrical experience of substantive opulence. The momentary joy of crystal teeth also resists the classical topos of Devouring Time (Ovid, *Tristia*, IV.vi, 10–15, and *Metamorphoses* XV.234–36), later taken up by Boccaccio using crystal teeth:

Equē in eorum detrimentum quorundam principum detestabile accessit odium, nec aliter quam in hostes ab eis adversus ea conspiratum est. Et quot hoc deleverit odium non solum fabularum, sed quarumcunque facultatum volumina, non leviter exprimeretur numerus. Ceterum si cetera pepercissent, non eis, restauratore carentibus, pepercisset labile tempus, cui et taciti et *adamantini sunt dentes*, nedum libros, sed saxa corrodentes durissima et ferum ipsum, domans cetera. Hoc hercle tam Greca quam Latina multa redegit in pulverem!⁶² (*my emphasis*)

[Equally detrimental was the detestable animosity of certain rulers, conspiring against books no differently than against their enemies. And no number could easily express how many—not only book of fables but of various subjects—this animosity destroyed. But even if they had been spared, the passing of time, with its silent but *adamantine teeth*, and which is the master of not just books but other things—eating away at the hardest stone and even iron—would not have spared the other books, which lacked anyone to repair them. By Hercules this reduced many Greek and Latin volumes to dust! (15)]

Through the image of adamantine or diamond teeth for the Ovidian Devouring Time (in Latin, *adamas*, which according to Pliny and Isidore is a kind of crystal⁶³), Boccaccio underscores the resilience of time over human behavior and deeds, and the books that record them. The teeth of Bertran represent an erotic sensual pleasure in the moment (like the moment by the Islamic and *Rose* fountains, and the erotic fantasy of being *with* the crystal bed in *Tristan*), contradicting a vision of crystal teeth that would eventually remind us that time devours all things. By focusing on the pleasurable aspect of crystal teeth as representing varied sensory consumption (crystal teeth a metonymy for eating, as well as an erotic visual pleasure, or as a flashy substance), Bertran directs us towards a reading of crystal away from Dante's poetics of crystal stone that emphasizes crystalline petrification in a negative carnal sense. While Bertran engages with crystalline effects of the lady as a prelude to lovemaking, Dante becomes a crystal apart from the lady.

Finally from a formal perspective, in the troubadour corpus Bertran was known as the inventor of the *sirventes*, in which he set new lyrics of a different theme (satirical rather than love) to preestablished metrical forms and melodies. Can we consider it significant that his substantive poetics celebrates nonmetaphysical crystal as both bodily enjoyment and the transmutation of lyric form? This poem borrows a melody from a pessimistic love song by Conon de Béthune, a contemporary trouvère; while Dante creates a stable crystal poetic object, Bertran shows lyric as a form in flux,

borrowed and shared, thus affirming the crystalline water effects of the Islamic palaces, the one and two phenomenon of the *Rose* crystal, and the sensual saturation of crystal teeth: crystal as not object of joy but making joy, “fan jau” but also “esjau” the last word of the crystal teeth stanza, enjoying crystal as a medium or *chose*, as phenomenon in which one revels in the sensual “joy” of dark transparency.

In conclusion, medieval literature reflects an iconography of crystal in which the stone symbolizes the timeless purity of faith, hope, and love, the true Christian soul who resists temptation. Lapidary understandings support this crystal iconography by defining physical properties that make it available for allegories of transformation and transcendence. However, my readings of secular texts aim to show how crystal can function as an experiential medium. Crystal functions as a substance that resists the hermeneutic duality of the symbolic mirror: carnal vs. spiritual, sensual vs. intellectual. In the vernacular literary traditions of my study, another set of understandings leads to a poetics of crystal in tension with the iconography and lapidary definitions of an agentive gemstone or to a narrative of a moralized passive stone as reflecting human desire. Instead, crystal acts as a substantive locus for the sensory registration of diverse physical effects. The fountain scene from the *Roman de la Rose*, a central text to the Middle Ages, instructs us to read crystal phenomenologically: the moment of the lover’s lingering by the fountain represents a sensory experience outside of a pursued object or mirror reflection. It relates the lover’s experience of light reflection and refraction, and his relative view of the garden according to his position vis-à-vis the crystal. Through this irreducible, pleasurable, and changing experience of crystal that recalls the Ibelin palace fountain, Guillaume shows the pleasure in the courtly quest as at once a spiritual, physical, and imaginative experience. The sensory perception and sensual experience of crystal registers as something more than a static, specular understanding that ultimately becomes about self-transcendence and universal knowledge. Rather than the acquisition of crystalline wisdom, crystal manifests or incites earthly experiences such as changing bodily movement in space, and the changing sensory apprehension of a particular situation (touch, taste, multiple perspectives); this crystal experience suspends a paradoxical situation that can be read in potentially different ways and without an allegorical resolution. Such a substantive experience of crystal correlates with contemporary developments in optical science. My comparative analysis hopes to have been suggestive with the purpose of linking various secular texts, traditions, and historical periods concerning the interpretation of crystal.

Stanford University

NOTES

Thanks are due to, amongst others, Tili Boon Cuillé, Julie Singer, Eric Gidal, Alexander Key, Kathryn Starkey, David Lummus, and the anonymous reviewers for *PQ*.

- 1 See essays by Jeffrey Jerome Cohen and Kellie Robertson in *Animal, Vegetable, Mineral: Ethics and Objects*, ed. Jeffrey Jerome Cohen (Washington, DC: Oliphaunt Books, 2012).
- 2 See Martin Heidegger, *Fundamental Concepts of Metaphysics: World, Solitude, Finitude* (Indiana U. Press, 2001); Cohen, *Animal, Vegetable, Mineral*, 7, and Robertson in same volume, 92–93; Bill Brown, “Thing Theory,” *Critical Inquiry* 28, no.1 (2001): 1–22, 5.
- 3 I take this phrase from Rosemary Haag Bletter, “Mies and Dark Transparency,” in Terence Riley, Barry Bergdoll, et al., *Mies in Berlin* (New York: Museum of Modern Art, 2001), 350; see also her article “The Interpretation of the Glass Dream-Expressionist Architecture and the History of the Crystal Metaphor,” *Journal of the Society of Architectural Historians* 40 (1981): 20–43. As readers will see, I elaborate upon this concept through my comparative reading of secular medieval literature.
- 4 See Roger Dragonetti, “Le lai narratif de Marie de France,” in *La musique et les lettres* (Geneva: Droz, 1986), 33.
- 5 See Brown, 12; Theodor W. Adorno, *Negative Dialectics*, trans. E. B. Ashton (New York: The Seabury Press, 1997), 189–94.
- 6 Erkinger Schwarzenberg, “Colour, Light, and Transparency in the Greek World” in *Medieval Mosaics: Light Color, Materials*, ed. Eve Borsook, Fiorella Giffredi Superbi, and Giovanni Pagliarulo (Milan: Silvana Editoriale, 2000), 15–34, 29.
- 7 Genevra Kornbluth, *Engraved Gems of the Carolingian Empire* (Pennsylvania State U. Press, 1995), 17.
- 8 Schwarzenberg, “Cristallo,” in *Vitrum: Il vetro fra arte e scienza nel mondo romano*, ed. Marco Beretta and Giovanni di Pasquale (Florence: Giunti, 2004), 61–70, 63.
- 9 *Ibid.*, “Colour, Light,” 15–16, 27–29.
- 10 D. E. Eicholz, *Pliny: A Natural History, with an English Translation*, Vol. 10, Loeb Classical Library (Harvard U. Press, 1962), book 37, chap. 9 and 10, 180–85.
- 11 Kornbluth, *Engraved Gems*, 16–18.
- 12 *The Etymologies of Isidore of Seville*, trans. Stephen A. Barney, et al. (Cambridge U. Press, 2006), 325–26. See also Pliny’s discussion of the Indian diamond, “adamas,” which has an affinity with rock crystal in its transparency and hardness, book 37, chap. 15: 207.
- 13 *Alberti Magni opera omnia*, ed. Auguste Borgnet and E. Borgnet, 38 vols. (Paris: L. Vivies, 1890–99), II.ii.3, “crystallus” and II.ii.8, “iris”; English translation Dorothy Wyckoff, *Book of Minerals* (Oxford: Clarendon Press, 1967), 64–67, 83.
- 14 Herbert Kessler, “Speculum,” *Speculum* 86 (2011): 11.

- 15 Kornbluth, *Engraved Gems*, 17.
- 16 See notes to the discussion of *Romance of the Rose* further on in the essay.
- 17 See note 1, and Michel Serres's discussion of a "thing" ("chose," "causa," "cosa," "Ding") as something that emerges in the tribunal, "comme si la seule réalité humaine venait des seuls tribunaux," in *Statues: Le second livre des fondations* (Paris: François Bourin, 1987), 294, 307.
- 18 See Robertson's discussion in *Animal, Vegetable, Mineral: Ethics and Objects*, 96–97.
- 19 Rosemarie Haag Bletter, "The Interpretation of the Glass Dream-Expressionist Architecture and the History of the Crystal Metaphor," *Journal of the Society of Architectural Historians* 40 (1981): 20–43, 22.
- 20 Bletter, "Interpretation," 23.
- 21 Wolfram von Eschenbach, *Parzival*, ed. Karl Lachmann, Eberhard Nellman (Frankfurt: Deutscher Klassiker Verlag, 1994), I:776.
- 22 Bletter, "Interpretation," 26.
- 23 Bletter, "Mies and Dark Transparency," 350.
- 24 Bletter, "Mies and Dark Transparency," 350–51.
- 25 For a full discussion of this apocrypha concerning Solomon as a patron of glass architecture see Bletter, "Interpretation," 23.
- 26 Bletter, "Interpretation," 27.
- 27 Wilbrand of Oldenburg, *Itinerarium terrae sanctae* (1211–12), *Peregrinatores Medii Aevi Quatuor*, ed. J. C. M. Laurent (1864), 167; Denys Pringle, trans., *Pilgrimage to Jerusalem and the Holy Land, 1187–1291*, Crusade Texts in Translation 23 (Burlington, VT: Ashgate, 2012), 66.
- 28 Frederick P. Bargebuhr, "The Alhambra Palace of the Eleventh Century," *Journal of the Warburg and Courtauld Institutes* 19 (1956): 192–258, 234, trans. Alexander Key.
- 29 For other accounts of crystalline effects of materials related to Islamic fountains, such as marble used in medieval churches to evoke a "frozen sea" that could be seen as a mirror of the "divine plan," and the modern fascination with such mystical floors, see Fabio Barry, "Walking on Water: Cosmic Floors in Antiquity and the Middle Ages," *Art Bulletin* 89.4 (2007): 627–56.
- 30 Guillaume de Lorris and Jean de Meun, *Le Roman de la Rose*, ed. Félix Lecoy, vol. 1 (1973; Paris: Champion, 2009); translation from *The Romance of the Rose*, trans. Frances Horgan (Oxford U. Press, 1994), cited by page number.

- 31 D. W. Robertson Jr., *A Preface to Chaucer: Studies in Medieval Perspectives* (Princeton U. Press, 1962), 95.
- 32 C. S. Lewis, *The Allegory of Love: A Study in Medieval Tradition* (Oxford U. Press, 1936), 128–29.
- 33 Sarah Kay, *Subjectivity in Troubadour Poetry* (Cambridge U. Press, 1990), 179; David Hult, *Self-Fulfilling Prophecies: Readership and Authority in the First “Roman de la Rose”* (Cambridge U. Press, 1986), 279.
- 34 David Hult, “The Allegorical Fountain: Narcissus in the Roman de la Rose,” *Romanic Review* 72 (1981):125–48, 145; Hult, *Self-Fulfilling Prophecies*, 289.
- 35 John V. Fleming, *The “Roman de la Rose”: A Study in Allegory and Iconography* (Princeton U. Press, 1969), 94.
- 36 Jean Rychner, “Le Mythe de la Fontaine de Narcisse dans le *Roman de la Rose* de Guillaume de Lorris” in *Le Lieu et la Formule: Hommage à Marc Eigeldinger* (Neuchâtel: Editions de la Baconnière, 1978), 43.
- 37 Hult sees a deliberate “grammatical ambiguity or distortion” that “parallel[s] the Lover’s own visual distortion.” Moreover, “to suppress the mention of eyes for the sake of the crystal(s) is a way of transferring our attention from the object of vision to the visual faculty itself, the manner *by which* things are perceived”. *Self-Fulfilling Prophecies*, 279.
- 38 See note 17.
- 39 Félix Lecoy anticipated this difference when he observed that the two and one crystal indicates a substance (“*matière*”) rather than an object. Lecoy 275.
- 40 See Kay’s merging of self and other, Daniel Heller-Roazen’s poetics of contingency in which the self is “simultaneously constituted and deconstituted,” and Suzanne Conklin Akbari’s interpretation of this scene using optical theory of the multiple images and experiences of the self, Daniel Heller-Roazen, *Fortune’s Faces: The “Roman de la Rose” and the Poetics of Contingency* (The Johns Hopkins U. Press, 2003), 28, 58; Suzanne Conklin Akbari, *Seeing through the Veil: Optical Theory and Medieval Allegory* (U. of Toronto Press, 2004).
- 41 Stephen G. Nichols, “‘The Pupil of Your Eye’: Vision, Language, and Poetry in Thirteenth-Century Paris,” in *Rethinking the Medieval Senses: Heritage, Fascinations, Frames*, ed. Stephen G. Nichols, Andreas Kablitz, and Alison Calhoun (Johns Hopkins U. Press, 2008), 286–307; Suzanne Conklin Akbari, *Seeing Through the Veil: Optical Theory and Medieval Allegory* (U. of Toronto Press, 2004).
- 42 Akbari, *Seeing Through the Veil*, 55–66.
- 43 Nichols, “*Pupil of Your Eye*,” 293; David C. Lindberg, *Roger Bacon and the Origins of “Perspectiva” in the Middle Ages: A Critical Edition and English Translation of Bacon’s “Perspectiva” with Introduction and Notes* (Oxford U. Press, 1996).
- 44 Lindberg, *Roger Bacon*, 75–79.

- 45 Lindberg, *Roger Bacon*, 77.
- 46 Nichols, "Pupil of your eye," 293.
- 47 Nichols, "Pupil of your eye," 292–97; Lindberg, *Roger Bacon*, 71.
- 48 Nichols, "Pupil of your eye," 290; Lindberg, *Roger Bacon*, 57–63.
- 49 Nichols, "Pupil of your eye," 302.
- 50 Bletter, "Interpretation," 26; *Parzival* V: 235.23–24: "daz was ein dinc, daz hiez der Grâl, / erden wunsches überwal" (a thing called the "the Grail," transcending all earthly perfection).
- 51 Gottfried von Strassburg, *Tristan*, ed. Friedrich Ranke and Rüdiger Krohn, 3 vols. (Stuttgart: Reclam, 1980); *Tristan*, trans. Arthur T. Hatto (Harmondsworth: Penguin, 1960; repr., London: Penguin, 2004), cited by page numbers.
- 52 Bletter, "Interpretation," 26.
- 53 Paul Frankl, *The Gothic: Literary Sources and Interpretations through Eight Centuries* (Princeton U. Press, 1960), 174.
- 54 I thank Kathryn Starkey for advice about the sense of "geweten"/"weten" here, and for also informing me of the possibility of reading "ouch" as "joch" according to the Ulrich von Türheim continuation of *Tristan*, which would mean in this context "bound to a crystalline yoke."
- 55 Bletter, "Interpretation," 27
- 56 Robert M. Durling and Ronald L. Martinez, *Time and the Crystal: Studies in Dante's Rime Petrose* (Berkeley: U. of California Press, 1980), 153.
- 57 Alice M. Colby, *The Portrait in Twelfth-Century French Literature* (Geneva: Droz, 1965); Durling and Martinez, *Time and the Crystal* 153; 384n6.
- 58 A. Jeanroy and J. J. Salverda de Grave, ed., *Poésies de Uc de Saint-Circ* (Toulouse: Privat, 1913), 32; *The Poems of the Troubadour Raimbaut de Vaqueiras*, ed. Joseph Linskill (The Hague: Mouton, 1964), 128–29. Citations are by song number and lines in the editions. English translation of Uc is my own.
- 59 Dante, *Rime Petrose*, ed., Gianfranco Contini, in Durling and Martinez, *Time and the Crystal*, 284–85.
- 60 Durling and Martinez, *Time and the Crystal*, 153.
- 61 William D. Paden Jr., Tilde Sankovitch, and Patricia H. Stäblein, ed., *The Poems of the Troubadour Bertran de Born* (U. of California Press, 1986), 170–73. Citation by song number and lines in this edition.

- 62 Giovanni Boccaccio, *Genealogy of the Pagan Gods*, trans. Jon Solomon, Vol. 1: books I–V/ preface 1, 30–32. (Harvard U. Press, 2011).
- 63 Eicholz, *Pliny*, book 37, chap. 15:207.