luxurious objects from the East played no role in reconciling Christianity with Islam, for which Jacques and most of his Western contemporaries maintained great contempt. Nevertheless, despite Jacques' critique of the avarice and luxurious lifestyle of Mohammed, Muslims, Oriental Christians, and Westerners who assimilated in the Middle East, Jacques, like other Westerners, both desired and consumed the treasures of the East, many of which came their way through Muslim intermediaries. Desire and the consumption of luxurious goods were acceptable, in Jacques' system of values, if they were turned to religious ends. His secular contemporaries, however, were not always so religious in their reasons for bringing home, or demanding, Oriental goods. Indeed, even the canons of Oignies probably had more material reasons for honoring Marie's burial place with dazzling luxurious objects: after all, the greater Marie's prestige, the greater the profits from pilgrims to her place of burial.

While there was no paradox, for Jacques de Vitry and his contemporaries, in the way in which the luxuries of the East met the ascetic West in the burial place of Marie of Oignies, there was a paradox in the distribution of the wealth that came to Oignies because of Marie. Unlike the canons of Oignies, the women who shared Marie's informal religious life—in huts just outside the priory—did *not* benefit from the presence of her relics, nor did they benefit from Jacques de Vitry's generous gifts to the priory. The property records of Oignies make it very clear that gifts to the women were rare and extremely modest. In fact the community of women lasted as long as it did—which wasn't very long—because they passed their huts and personal possessions on from one woman to another.[90]

By the middle of the thirteenth century the Church at large had grown relatively intolerant of informal women's communities, and of the proximity of women's communities to men's. The women of Oignies—the real heiresses to Marie's way of life—were forced, around 1250, to move further away from the priory. And in the first decades of the fourteenth century their community disappeared altogether.[91] Locally, then, Marie had come to be valued as a saintly relic, but not as a role model for other women to follow.

[18]

CRYSTALLINE WOMBS AND PREGNANT HEARTS

THE EXUBERANT BODIES OF THE KATHARINENTHAL VISITATION GROUP

Jacqueline E. Jung

Of the many splendid objects to survive from medieval convents, one of the most enchanting is a small sculpture of the Virgin Mary and St. Elizabeth from the Swiss Dominican foundation of St. Katharinenthal, currently housed in the Metropolitan Museum of Art (fig. 18.1).[1] Made during the first decade of the fourteenth century by the workshop of Henry of Constance, the "Visitation Group" will doubtless be familiar to this volume's readers as one of the many late medieval devotional images that, in Caroline Bynum's words, "reflect[ed] and sanctif[ied] women's domestic and biological experience."[2] Citing Jeffrey Hamburger's now-seminal study of monastic visual practices, Bynum linked the sculpture to a vision experienced by the thirteenth-century mystic Gertrude of Helfta, who once witnessed

> the immaculate womb of the glorious virgin, as transparent as the purest crystal, through which her internal organs, penetrated and filled with divinity, shone brightly, just as gold, wrapped in silk of various colors, shines through a crystal. Indeed, one saw the little blossoming boy, the only Son of the highest Father, nurse avidly in delight at the heart of His virgin mother.[3]

The vision's fusion of pregnancy motifs with the theme of seeing through solid bodies makes it an appropriate counterpart to the sculpted figures, with their luminous crystal stones. Yet significant differences persist. Gertrude's vision posits a continuity between the Virgin's inner body and its external surface, asserting an organic unity of parts that may reveal itself, however

FIGURE 18.1 Workshop of Henry of Constance. Visitation Group from St. Katharinenthal bei Diessenhofen, ca. 1310. New York, Metropolitan Museum of Art, Gift of J. Pierpont Morgan, 1917 (17.190.724).

PHOTO COURTESY OF THE METROPOLITAN MUSEUM OF ART.

briefly, to the sensitive beholder. The crystals on the Visitation figures, by contrast, assert themselves radically as fragments. Set exceedingly high on the chests and framed from below by the figures' interlocked right hands, they press forward between the viewer and the bodies' interiors, suggesting but ultimately refusing to show what lies beneath. Like the brooches often affixed to the collars of sculpted saints, the crystals surprise and delight; as references to human anatomy, they are incongruous and strange.

Taking these gleaming fragments as emblematic of the "comic mode," my paper interweaves strands of scientific, visionary, and visual discourses to expand the range of meanings the Visitation Group may have held for the women of Katharinenthal. Keeping in mind the role of devotional images in sparking empathy and identification with characters of sacred history,[4] I seek to understand what this depiction of two expectant mothers could have meant to viewers whose social identity was largely predicated upon

FIGURE 18.2 Visitation Group from St. Katharinenthal, *detail:* chest cavity on figure of Elizabeth.

PHOTO COURTESY OF THE METROPOLITAN MUSEUM OF ART.

their rejection of physical pregnancy. The obverse of this question concerns the object's material and formal qualities: namely, how the distinctive medium and eccentric positioning of the "wombs" may have imbued the biblical episode with particular relevance to the nuns, making it into a mirror and model of their own spiritual exercises.

From the outset it must be acknowledged that the stones we see today, affixed to metal clasps with solid backings, may not be original to the sculpture.[5] However, given the predilection for crystal embellishments in devotional and liturgical objects at this time,[6] and the frequency with which Christian writers likened the bodies of the blessed to precious stones, there is no reason to doubt that these figures always bore a similar stone or glass piece.[7] Each crystal nestles in a smoothly carved cavity more than one-half inch deep, within the torso (fig. 18.2). Although no traces of figural painting survive on the cavities' red-painted surfaces, the presence there of more pinholes—and even several tiny metal pegs—suggests that these once

formed some kind of miniature exhibition space, whose erstwhile contents must remain a mystery.[8] Whether the original stones provided direct visual access to the bodies' interiors or, as today, were displayed in settings that obscured them, their solidity and transparency would have called attention to the viewing process itself, the ability (or inability) of optical rays to meet and pass through certain physical obstructions.[9] The familiar trope of the Virgin's womb as a glass that remained intact while admitting light allowed each act of looking at and through these stones to recall the moment of Christ's conception.[10]

In medieval natural-philosophical exegesis, precious stones possessed many features—such as hardness, malleability, beautiful colors, luminosity, and healing temperatures—that made them appropriate symbols for all manner of virtues.[11] Rock crystals, believed to originate as water slowly frozen into permanent ice, embodied the very paradoxes often ascribed to the glorified bodies of the blessed—solidity and transparency, hardness and fluidity—and were a favorite metaphor of purity, especially that of the Virgin Mary.[12] The promise of crystalline rivers in the Heavenly Jerusalem (Rev 22:1) reinforced commentators' beliefs that these stones, despite their firmness, retained a close connection to their liquid origins, to which they might always return.[13] This idea underlies the prescription of crystal-based remedies to sufferers of chronic thirst or stomach ailments, as well as to women who had difficulties nursing: the drinking of crystal-steeped water or honey was thought to stimulate the flow of liquids within dry breasts.[14]

This underlying conception of the human body as a vessel subject to continual replenishment was doubtless encouraged by the long-standing use of figural sculptures as receptacles for holy objects, from reliquaries that encased shreds of flesh and bone to anthropomorphic tabernacles that housed liturgical paraphernalia.[15] Although it left behind no physical remains, Mary's body offered image-makers a special opportunity to depict this aspect of the human form, for example in the shrine-Madonnas that contained figures of the Trinity.[16] Luke's account of the Visitation (1:39–56), which describes Jesus and John communicating from within their mothers' wombs, also provided room for artists to demonstrate the connection between interior life and external appearances. In most later medieval depictions of this scene, the wombs, in the form of tiny mandorlas, were transplanted to the surface of the women's clothing, just over their swelling abdomens.[17] Less frequently, as in the Katharinenthal figures, they appeared at chest-level.[18] The association of crystals with lactation gave this high placement special significance; by replacing the figures' breasts, the stones call attention not only to the women's role as vessels bearing something within themselves but also to

their power to nurture beings outside themselves. In the Visitation Group, each crystal thus elides the successive views of the maternal body offered by the shrine-Madonnas: the introverted body that shelters and the extroverted body that feeds.

The crystals' evocation of both wombs and breasts was enriched by the ancient association of the chest area with the heart, itself conceived as a person's vital center and the dwelling place of her or his soul.[19] The literary trope of a favored friend or idea being "inscribed on the heart" was often pictured as an image of the beloved subject affixed in a roundel to the center of a larger figure's chest.[20] In this respect the high placement of the Visitation figures' crystal-wombs elevates their pregnancy both literally and figuratively: in contrast to ordinary mothers, these women bear their progeny in their hearts. This conflation of organs, also present in Gertrude's vision, departed from contemporary understandings of pregnancy. Whereas Gertrude beheld the baby nursing pure blood directly from his mother's heart, ordinary children were thought to be nourished by a low substance, menstrual blood, both *in utero* and, transformed into milk through the filters of their mothers' breasts, *post partum*.[21]

The conceptual conflation of hearts and wombs meant that conventual people, though vowed to celibacy, were not prevented from experiencing in their bodies the fullness of new life. As Bynum and others have shown, physical pregnancy offered a model through which many monastics, both male and female, conceived of union with God.[22] In light of the growing attention to Christ's childhood in the thirteenth and fourteenth centuries, it is understandable that experiences described as "spiritual pregnancy" were also widespread in those years. Many conventual women and their male advisors enjoyed all the swelling and sweetness involved in physically containing the divine—but with none of the mess and pain that married women endured.[23] So pervasive was such imagery that the Flemish beguine Hadewijch could use the stages of fetal development as an extended metaphor for the nurturing of Love in a devout person's soul.[24] And for most writers, both secular and religious, such conception took place upon the entrance of a beloved into the lover's heart.[25]

This idea found expression in the devotional pictures made by a nun of St. Walburga in Eichstätt, in which the heart of the crucified Christ and that of the loving subject appear as enclosures both containing and revealing the embrace of person and God.[26] Such images correspond beautifully with other religious women's understandings of their bodies' capacity to hold the divine. The sister-book of Katharinenthal, which chronicles the extraordinary virtues of the convent's inhabitants from its establishment in 1242 until

around 1422,[27] describes Anne von Ramschwag being "lifted up in a divine light" during one Christmas Mass, whereupon

> it seemed to her that her body split open so that she could look into herself. There she saw two beautiful babies embracing each other sweetly and lovingly. . . . [S]he recognized that one child was our Lord and the other her soul, and that she and God were united. Then her body closed together again.[28]

Although this splitting may more readily recall sculpted shrine-Madonnas than the Visitation Group, the reception of divine light into the nun's body nonetheless associates her with the latter figures, from whose torsos light spills.[29] More often, Anne's contemporaries peered into their hearts or souls through chests turned temporarily transparent. A formative incident in the life of the German Dominican Henry Suso exemplifies this phenomenon with special vividness.[30] During one meditation Suso

> looked inside [himself] and saw that over his heart his body was as clear as a crystal, and he saw in the middle of his heart eternal Wisdom sitting quietly with a pleasing appearance. Nearby the soul of the servant [Suso] was sitting and longing for heaven. It was inclined in love at God's side, embraced by his arms, and pressed to his divine heart.[31]

The resulting image evokes something like a series of nested dolls: Suso peers into his own heart to find his soul pressed against the heart of God. In the corresponding illustration, the frontally seated author pulls aside his garment to reveal a small embracing couple (fig. 18.3).[32] The figures' ambiguous placement—seated just above the dark area between Suso's spread knees and circumscribed, against his chest, by the edges of his open cloak—invites us to understand them as both encased within the heart and contained in (or emerging from) a kind of womb.

Although this illustration does not suggest the mechanics of self-perception—offering a view of the mystic's heart to *beholders,* but not to the seated Suso—the text stresses that only by peering through his own suddenly transparent, though still intact, flesh could Suso behold his soul embraced by Wisdom. The chest as locus of a person's spiritual core is highlighted in Suso's well-known diagram of the soul's journey "from its origins in the Trinity . . . to its ultimate destination, reunion with the Godhead" (fig. 18.4).[33] Here, a roundel in the center of each human figure's chest indicates the linkage between person and divine, whereas God the Father, who bears the human soul before and after its incarnation, displays on his torso a bust-length image of the person. At the upper left-hand corner of the page, the

FIGURE 18.3 Henry Suso with Divine Wisdom, from Suso, *Exemplar,* ca. 1370. Strasbourg, Bibliothèque Nationale et Universitaire, MS 2929, fol. 8v.

PHOTO COURTESY OF THE BIBLIOTHÈQUE NATIONALE ET UNIVERSITAIRE, STRASBOURG.

end of the journey is marked by a shiny roundel that reflected the reader's visage back to her or his own eyes,[34] thereby transforming the page into a counterpart of God's body. Such images, and the labile concepts of the body-soul relationship they visualize, enable us to imagine the nuns seeing in the gleaming chests of their Visitation figures not only miraculously pregnant wombs but also grace-filled hearts or souls, reflecting back on one another as the women touch.

The conflation of glorified hearts with precious stones also appears in the famous episode in which Suso carved the initials IHS into his chest with a stylus.[35] Despite the proclaimed spiritual motivation behind this act, Suso's concern with its materiality in his written account is striking; he informs us that, although the bloody wounds eventually healed, the scars remained, "as thick as a flattened blade of grass and as long as a section of the little finger," and "as often as his heart beat, the name moved." Dozing in his chair one night, Suso sensed "some kind of light flood[ing] out of his heart"; upon inspection, he discovered there "a golden cross into which many precious jewels had been skillfully inlaid." Not wishing to call attention to his state, Suso

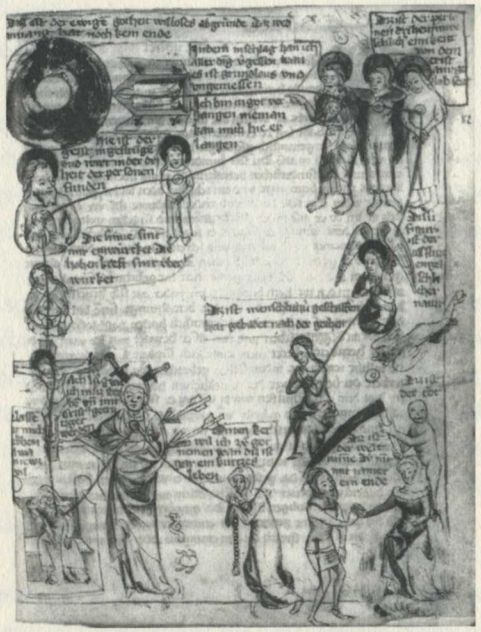

FIGURE 18.4 Diagram of the soul's journey from and to the Godhead, from Suso, *Exemplar,* ca. 1370. Strasbourg, Bibliothèque Nationale et Universitaire, MS 2929, fol. 82r.

PHOTO COURTESY OF THE BIBLIOTHÈQUE NATIONALE ET UNIVERSITAIRE, STRASBOURG.

covered his chest with a blanket—but still "the light flooding forth glowed so brilliantly that nothing could diminish its powerful beauty."

Suso presents his glorified heart here as solid, sculptural matter that, once re-formed through his own devotional exertions, transforms his chest into a window or conduit for divine light. In this he was hardly alone; when examined after death, the hearts of many saintly women likewise revealed themselves to resemble—if not actually to be—artfully shaped stones.[36] Like these, and the heart of the Virgin Mary, which one thirteenth-century poet compared to "a pure altar embellished with gold and precious stones,"[37] Christ's heart was also imagined to possess the attributes of finely crafted metalwork. Contemplating the gifts God had lavished on her and his formal confirmation of them, Gertrude of Helfta once admonished the Lord for "not having sealed this pact in the customary way, by clasping hands."[38] Rather than offering his right hand for the expected *dextrarum iunctio*—the gesture also performed by the Visitation figures—Christ surprised Gertrude by

> opening with both hands the wound of [his] deified heart, . . . and commanding me to stretch forth my right hand. Then, contracting the aperture of the wound in which my right hand was enclosed, [he] said, "See, I promise to keep intact the gifts which I have given you. . . ." After these words of sweetest love, which I withdrew my hand, there appeared on it seven circles of gold, like seven rings.[39]

On another occasion, as Gertrude lay sick in bed, Christ appeared at her side and showed her,

> issuing from his left side as though from the innermost depths of his blessed heart, a stream of flowing water as pure as crystal and as solid [cf. Rev 22.1]. It proceeded to cover his adorable chest like a jewel. I saw that it was transparent, colored in hues of gold and rose, alternating in various ways.[40]

Christ explained that the streams represented the "sanctifying" power of Gertrude's illness, and elucidated the other elements with reference to their visual and material properties: "[J]ust as the gold and rose colors gleam through the purity of the crystal and are enhanced by it, so will your intentions be pleasing, seen through the cooperation of the gold of my divinity and the perfecting power of the patience of the rose of my humanity." Here, Christ's crystalline breast assumes the characteristics of the Virgin's womb as Gertrude had beheld it in her vision of the nursing child. The similarity of the two visions—the marvelous transparency of the solid body that draws the gaze in, the presence within the body of gleaming gold that radiates light back out—is striking. It points to concerns beyond (though certainly including) the interest in biological experience, concerns about materiality, vision, and the relation between the outer body and the soul brimming over with grace.

The Katharinenthal sister-book furnishes ample evidence that extraordinary writers such as Gertrude and Suso were not exceptional in their fascination with bodies that were at once solid, transparent, and radiant. Like many conventual women of the time, the sisters of Katharinenthal often revealed states of spiritual grace by turning transparent before the eyes of their friends.[41] A large sculpture of Christ embracing St. John in the nuns' choir, produced in the same decade and by the same masters as the Visitation, was especially effective in sparking this and other marvelous corporeal displays (fig. 18.5);[42] while praying before this image, Anne von Ramschwag was observed to become "as clear as a crystal," and "a glow of light emerged from within her."[43] When Mechthild von Eschenz left the choir during Mass

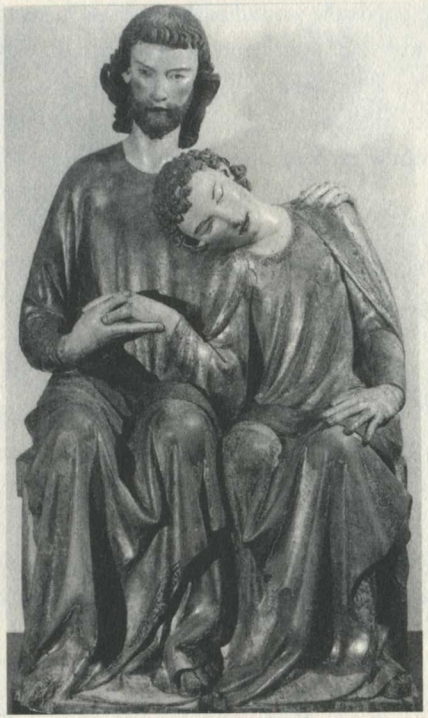

FIGURE 18.5 Henry of Constance. Christ and St. John Group from St. Katharinenthal, ca. 1305–1310. Antwerp, Meyer van den Bergh Museum.

PHOTO © COLLECTIEBELEID .

to proceed to the kitchen at the prioress's request, she became "as clear as a crystal, so that [a companion] saw straight through her." Asked "what she was thinking as she left the choir," Mechthild explained, "I was thinking that obedience is better than doing whatever I should like to do."[44] Here transparency is connected with the preeminent monastic quality, obedience—a leitmotif in the sister-book.

It is important to note the continued solidity of the respective bodies in these visions: the person does not turn invisible, but rather, "like a crystal," she becomes transparent *despite* her material presence.[45] A vision experienced by Berta von Herten thematizes this paradox while also demonstrating the fluidity of visual images within the nuns' imaginations. Troubled by a desire to leave Katharinenthal and dwell with a local recluse called Guta, Berta beheld the Lord "sitting high up in the refectory, his face glowing like the sun, and waving to her with his hand."[46] When she approached him and

flung herself at his feet, Christ "took her up and lay her head upon his lap and treated her all sweetly and lovingly." Suddenly Berta noticed that the refectory wall had changed "as if to glass," and she saw a person peering into it from outside "as if her heart would break, so gladly would she pass through the wall to meet our Lord." Identifying this person as Guta, Christ assured Berta that her own situation within the convent, subject to rules of obedience and the suppression of individual desires, allowed her intimate access to him that a recluse could never enjoy.

Although depictions of Christ and St. John clearly provided a starting point for this vision, the account proceeded to use the experience of looking through a crystalline surface to probe notions of interiority and exclusion, yearning and satisfaction. Cradled in Christ's arms while watching Guta look on, Berta assumes the role of the souls enjoying God's company in the spacious hearts of the Eichstätt drawings or embraced by Divine Wisdom in Suso's lap: contented figures who look out of the picture at others—us!—who watch them from outside. This consideration of standpoint has important implications for our understanding of ocular vision within late medieval religious practice. On the one hand, Guta's gaze confirms the dynamic role ascribed to vision in contemporary texts and pictures; the text posits her as a model viewer, intensely focused on a subject visible through a transparent medium. Yet her gaze is problematic. For whereas Berta's experience of union is physical—conveyed first in Christ's gestural language inviting her to join him, then in his tender manipulations of her body—Guta's strictly visual contact places her in a site of desire always unfulfilled. Like the grids used by fifteenth-century painters to define illusionistic spaces, the wall of glass admits sight but holds the viewer far from the object of her gaze.[47] This, the tale implies, is a loss; the goal of the soul's desire is to efface that distance and become part of the picture, to find oneself embraced by God *within* the crystalline enclosure.

The relegation of the gaze to secondary status in this account, inferior to touch, points to the importance of the *material* aspects of "visual culture" in late medieval convents.[48] It demonstrates how pictorial motifs (in this case, the embrace of two figures) could conjoin with the physical medium (the tangible but transparent object) to shape and guide imaginative devotions. This merging recurs in one "good person's" vision of Adelhait Pfefferhartin.[49] Curious about Adelhait's spiritual status, the visionary prayed to Mary and "the beloved Saint John, thinking about the loving repose he took on the sweet heart of our Lord Jesus Christ . . . , that she come to learn in what degree of nobility this blessed sister stood before God." Having begun her meditation by envisioning Christ's embrace of his Beloved—before whose

sculptural depiction Adelheit was once seen to levitate[50]—the seer's mind swiftly moved to another image, as

> she beheld this sister enveloped in as clear a light, exploding out of her in streams of vivid radiance, as when the morning sun rises and its clear brilliance spills across the earth. Inside and outside, this sister was so vividly illuminated and gleaming that [the seer] had never seen anything resembling her in clarity and beauty, and she marveled greatly. . . . Then it was said to her: "You should know that [Adelheit] is a thousand times more beautiful and clearer before God than you could ever perceive."

It is important to note that, despite the continuity posited here between interior virtue and exterior illumination, this body does not admit ocular penetration or reveal anything hidden beneath its surfaces. Like those of the Visitation figures, it is an exuberant body, thrusting the evidence of its virtues outward toward beholders and rendering them visible through the body's materiality rather than through any internal motifs.

Such a body was also pictured—twice—in the sisters' magnificent illuminated gradual of 1312 (fig. 18.6).[51] A conflation of the Virgin Mary, the Apocalyptic Woman, and the triumphal Ecclesia, this aristocratic female figure stands on a human-faced moon and displays on her chest a large yellow roundel inscribed with the ray-emitting face of the sun.[52] On fol. 158av (extracted from the manuscript in the nineteenth century), the beginning of the sequence in honor of John the Evangelist, she occupies a middle zone between a Christ-John group above and a series of Apocalyptic visions below.[53] On fol. 258v (reproduced here), she moves from an eschatological future to a dialogical present; occupying the large initial A of "Ave Maria" in the sequence for the feast of the Annunciation, she becomes the subject and recipient of the vocalized text. Two model viewers accompany her: a standing St. John, who fixes his eyes on the roundel upon her chest, and a tiny nun who kneels at her feet with uplifted gaze.[54] Only the Woman faces outward, soliciting and anchoring beholders' attention. Set against a gold ground bursting with stars, she occupies an otherworldly realm that viewers, like the recluse Guta, may gaze at with longing—yet a realm that, as the presence of the donor and St. John demonstrates, is nonetheless accessible. The Woman's frontal gaze and extraction from any narrative context made her an active participant in the dialogue initiated by the nuns' song. In a less literal way than in Suso's diagram, the vellum thus became a kind of mirror for these beholders; looking at the golden initial as they sang the Virgin's praises, the sisters beheld a figure—elegant and beautiful, with light exploding from her chest—who embodied and

FIGURE 18.6 Initial with the Virgin Mary–Ecclesia–Woman Clothed with the Sun, from the Gradual of St. Katharinenthal, ca. 1312. Zurich, Schweizerisches Landesmuseum, LM 26117, fol. 258v.

made permanent the fleeting visions they had of themselves and one another in states of grace.

This kind of relationship, I suggest, is what the Katharinenthal Visitation Group portrays. One remarkable, though often overlooked, facet of this sculpture is the strong physical resemblance between the women.[55] In contrast to most depictions of the scene,[56] in the Katharinenthal sculpture no sign of age or status distinguishes one from the other: both wear luxurious garments, display youthful faces and bodies, and exhibit glistening heart-wombs. The sliver of space between the women, bridged only by two slender forearms, accentuates their mirrorlike disposition (fig. 18.7). This figural composition, and the kind of relationship it engenders, differs meaningfully from that of the sculpted Christ-John Group (see fig. 18.5), where John's passive body melts, in a series of sensuously curving lines, into a larger, more stable form.[57] The partnership between the women in the Visitation Group neither entailed nor allowed such relinquishment of individual identity. Just as the heroines of the Katharinenthal sister-book retained their own names and social roles even as they were extolled as exemplars, so Mary and Elizabeth preserve their bodily integrity and stand, hands clasped, on equal ground. With hearts fecund and gleaming, the fig-

FIGURE 18.7 Visitation Group from St. Katharinenthal: view from back.
PHOTO COURTESY OF THE METROPOLITAN MUSEUM OF ART.

ures beam their grace-filled states toward one another, effacing physical difference as they touch.

The Katharinenthal sculpture thus depicts the kind of reflective likeness that the Woman in the gradual invites—a dialogical relationship between one exuberant figure and a companion (in the manuscript, the viewer herself), which leads to the assumption in the latter of the qualities of the former. The sisters of Katharinenthal could not, of course, emulate Mary and Elizabeth in the physical aspects of their pregnancy. But they could—and, as their visions affirm, *did*—reproduce in themselves the effects of that pregnancy, bearing in their hearts the spiritual grace that allowed them to shine as clearly as if they were made of crystal. Whereas the sculpted figures' heart-wombs evoked such biological experiences, their mirrorlike arrangement and physical identicality made them enact what the sister-book repeatedly enjoined its readers to do: to teach one another by example and take one another as models—in the book's own terms, as *Bilder* (pictures) or *Spiegel* (mirrors)—of virtue.[58]

If Gertrude's vision of the solitary Virgin with the transparent womb illuminates the biological interest at the heart of each Visitation figure, the meditation by Gertrude's companion Mechthild of Magdeburg on the meeting of th e loving soul with the Bridegroom evokes most aptly this state of reflective union.[59] "There"—in the heavenly mansion, where person and God become one—

> eye gleams into eye,
> and there spirit flows into spirit,
> and there hand grasps hand,
> and there mouth speaks to mouth,
> and there heart greets heart.[60]

77. Cannuyer, "Les géorgiens," p. 181.
78. Jacques de Vitry, *Historia orientalis* 80 (p. 156; trans. Stewart, *History of Jerusalem,* pp. 83–84).
79. Jacques de Vitry, *Historia orientalis* 80 (p. 157; trans. Stewart, *History of Jerusalem,* p. 84).
80. *Lettres de Jacques de Vitry,* ep. 7, ed. Huygens, pp. 141–153.
81. Jean Richard, "The *Relatio de Davide* as a Source for Mongol History and the Legend of Prester John," in *Prester John,* pp. 139–158.
82. *Lettres de Jacques de Vitry,* ep. 7, ed. Huygens, p. 141.
83. Jacques de Vitry, *Historia orientalis* 92 (pp. 199–213). Jacques' account is taken almost verbatim from the *Historia de preliis* 90, 98–102, ed. Oswald Zingerle, *Die Quellen zum Alexander des Rudolf von Ems* (Breslau: W. Koebner, 1885; repr. New York: Olms, 1977), pp. 214–216, 220–236. However, Jacques leaves out, in the correspondence between Alexander and Dindimus, king of the Brahmans, Alexander's responses. For an introduction to medieval Alexander legends, see: George Cary, *The Medieval Alexander,* ed. D. J. A. Ross (Cambridge: Cambridge University Press, 1956); and *The Medieval French Alexander,* ed. Donald Maddox and Sara Sturm-Maddox (Albany: State University of New York Press, 2002). For an introduction to the theme of the noble savage in accounts of Eastern monstrous races see John Block Friedman, *The Monstrous Races in Medieval Art and Thought* (Cambridge, Mass.: Harvard University Press, 1981), pp. 163–171.
84. Jacques de Vitry, *Historia orientalis* 92 (pp. 199–200).
85. "Da nobis immortalitatem," Jacques de Vitry, *Historia orientalis* 92 (p. 199).
86. "Deus verbum est, et verbum istud mundum creavit, et per hoc verbum vivunt omnia," Jacques de Vitry, *Historia orientalis* 92 (p. 207).
87. See Friedman, *Monstrous Races,* pp. 166–167, on the prelapsarian nature of Brahmans and Gymnosophists. For Jacques de Vitry's discussion of sins of Westerners see *Historia orientalis* 83 (pp. 162–163).
88. Jacques de Vitry, *Vita* 1.4.37; 2.5.46 (*Acta sanctorum* Iunii:5:554, 558; trans. King, pp. 38, 47).
89. Jacques de Vitry, *Vita* 2.5.44 (*Acta sanctorum* Iunii:5:557; trans. King, p. 46).
90. Poncelet, *Chartes du prieuré,* pp. lx–lxiii (but Poncelet erroneously blames the women for the growing restrictions on their contact with the canons); Camille Tihon, "Le testament d'une béguine d'Oignies en 1275," *Namurcum: Chronique de la Société archaeologique de Namur* 14 (1937): 40–44.
91. Poncelet, *Chartes du prieuré,* pp. lxii–lxiii.

18. CRYSTALLINE WOMBS AND PREGNANT HEARTS

Throughout this essay's many permutations since its inception over ten years ago as a Master's thesis for the Art History Department at Columbia University—including versions read at Middlebury College, Barnard College, Princeton University, and the Kunstgeschichtliche Gesellschaft in Berlin—it has benefited from the critical comments of many individuals. To the advisors, students, and friends who shared their insights—most recently, Rachel Fulton, who helped give the paper its present shape—I offer my sincere thanks. Professor Bynum's influence will be apparent throughout; she generously read my thesis when I began studying with her in 1995, and has encouraged my work on Katharinenthal ever since. It is an honor to present this essay to her now, with heartfelt gratitude and admiration.

1. See Albert Knoepfli, *Die Kunstdenkmäler des Kantons Thurgau,* vol. 4: *Das Klost Katharinenthal* (Basel: Wiese, 1989), pp. 236–238, with full bibliography; and Robe Suckale's entry in *Krone und Schleier: Kunst aus mittelalterlichen Frauenklöstern* (Mu nich: Hirmer, 2005), pp. 414–415, which appeared as this paper neared completion.
2. Caroline Walker Bynum, "The Female Body and Religious Practice in the Later Midd Ages,", in *Fragmentation and Redemption: Essays on Gender and the Human Body Medieval Religion* (New York: Zone, 1992), pp. 181–238.
3. Bynum, "Female Body," p. 198; translation by Jeffrey F. Hamburger, "The Visual and th Visionary: The Image in Late Medieval Monastic Devotions," in *The Visual and th Visionary: Art and Female Spirituality in Late Medieval Germany* (New York: Zon 1998), pp. 117–118.
4. See Hamburger, *Visual and Visionary,* p. 124; F. O. Büttner, *Imitatio pietatis: Motiv der christlichen Ikonographie als Modelle zur Verähnlichung* (Berlin: Mann, 1983); Da vid Freedberg, *The Power of Images: Studies in the History and Theory of Respons* (Chicago: University of Chicago Press, 1989).
5. Knoepfli (*Kunstdenkmäler,* p. 236) states that they were added in the nineteenth cen tury, though Charles Little, curator of medieval art at the Metropolitan Museum, ha argued convincingly for their authenticity (personal communication, Feb. 15, 2006). am grateful to Dr. Little for sharing his observations on the work's material conditio in numerous conversations.
6. See Christof L. Diedrichs, *Vom Glauben zum Sehen: Die Sichtbarkeit der Reliquie i Reliquiar: Ein Beitrag zur Geschichte des Sehens* (Berlin: Weissensee, 2001).
7. The abdominal aperture of one *Maria gravida* figure from the Cistercian convent St. Marienstern (eastern Saxony) contains slots for a glass or crystal piece; see *Ze und Ewigkeit: 128 Tage in St. Marienstern,* ed. Judith Oexle, Markus Bauer, and Ma ius Zinzeler (Halle an der Saale: Stekovics, 1998), p. 89; for slightly later figures, se pp. 90–91. On the relation of precious stones to blessed bodies, see Ellert Dahl, "Heav enly Images: The Statue of St. Foy of Conques and the Signification of the Medieva 'Cult-Image' in the West," *Acta ad archaeologiam et artium historiam pertinentia* (1979): 175–192; Ulrich Henze, "Edelsteinallegorese im Lichte mittelalterlicher Bild und Reliquienverehrung," *Zeitschrift für Kunstgeschichte* 54 (1991): 428–451.
8. Knoepfli (*Kunstdenkmäler,* p. 236) suggests (without substantiation) that "die Leibes frucht . . . ursprünglich hinter Glas als kleines Figürchen sichtbar [war]."
9. See Susannah Biernoff, *Sight and Embodiment in the Middle Ages* (New York: Palgrav Macmillan, 2002); and the essays in *Visuality Before and Beyond the Renaissance: See ing as Others Saw,* ed. Robert S. Nelson (Cambridge: Cambridge University Press 2000).
10. Clarissa W. Atkinson, "Precious Basalm in a Fragile Glass: The Ideology of Virginit in the Later Middle Ages," *Journal of Family History* 8 (summer 1983): 131–143. For a explicit likening of Christ's conception to the visual process, see Leo Steinberg an Samuel Y. Edgerton Jr., "'How Shall This Be?' Reflections on Filippo Lippi's *Annuncia tion* in London," *Artibus et historiae* 16 (1987): 25–53.
11. Christel Meier, *Gemma spiritalis: Methode und Gebrauch der Edelsteinallegorese von frühen Christentum bis ins 18. Jahrhundert,* vol. 1 (Munich: Fink, 1977), with extensiv bibliography.
12. Meier, *Gemma spiritalis,* pp. 237–239. On glorified bodies, see Caroline Walke Bynum, *The Resurrection of the Body in Western Christianity, 200–1336* (New York Columbia University Press, 1995), pp. 235, 252–254, with further bibliography.
13. Meier, *Gemma spiritalis,* pp. 307–309. On interpretations of stones as animate things

see J. C. Plumpe, "Vivum saxum, vivi lapides: The Concept of 'Living Stone' in Classical and Christian Antiquity," *Traditio* 1 (1943): 1–14; Karl Möseneder, "Lapides vivi: Über die Kreuzkapelle der Burg Karlstein," *Wiener Jahrbuch für Kunstgeschichte* 34 (1981): 39–69.

14. On lactation, see Meier, *Gemma spiritalis,* pp. 403 n. 1366, 409 n. 1401; on thirst, p. 423 n. 1482; on stomach ailments, p. 400 n. 1354.
15. See the essays on body-part reliquaries edited by Caroline Walker Bynum and Paula Gerson in *Gesta* 36 (1997). On the early use of sculptures as reliquaries, see Signe Horn Fuglesang, "Christian Reliquaries and Pagan Idols," in *Images of Cult and Devotion: Function and Reception of Christian Images in Medieval and Post-Medieval Europe,* ed. Søren Kaspersen (Copenhagen: Museum Tusculanum Press, 2004), pp. 7–31. For anthropomorphic tabernacles, see Kerstin Hengevoss-Dürkop, *Skulptur und Frauenkloster: Studien zu Bildwerken der Zeit um 1300 aus Frauenklöstern des ehemaligen Fürstentums Lüneberg* (Berlin: Akademie, 1994), pp. 144–145.
16. Renate Kroos, "'Gotes tabernackel': Zur Funktion und Interpretation von Schreinmadonnen," *Zeitschrift für schweizerische Archäologie und Kunstgeschichte* 43 (1986): 58–64; Bynum, "Female Body," pp. 212, 217.
17. Gregor Martin Lechner, O.S.B., *Maria Gravida: Zum Schwangerschaftsmotiv in der bildenden Kunst* (Munich: Schnell und Steiner, 1981); Hildegard Urner-Astholz, "Die beiden ungeborenen Kinder auf Darstellungen der Visitatio," *Zeitschrift für schweizerische Archäologie und Kunstgeschichte* 38 (1981): 29–58.
18. See Urner-Astholz, "Ungeborenen Kinder," figs. 3, 10, 11, 13.
19. See Eric Jager, *The Book of the Heart* (Chicago: University of Chicago Press, 2000); and Jacques LeGoff, "Head or Heart? The Political Use of Body Metaphors in the Middle Ages," in *Fragments for a History of the Human Body Part Three,* ed. Michel Feher (New York: Zone, 1989), pp. 12–27.
20. Jager, *Book of the Heart,* pp. 69–71.
21. Bynum, "Female Body," pp. 214–215.
22. Bynum, *Holy Feast and Holy Fast: The Religious Significance of Food to Medieval Women* (Berkeley: University of California Press, 1987), pp. 256–257; Rachel Fulton, *From Judgment to Passion: Devotion to Christ and the Virgin Mary, 800–1200* (New York: Columbia University Press, 2002), pp. 351–363.
23. See Bynum, *Holy Feast,* pp. 257, 268–269, 278; Clarissa W. Atkinson, *The Oldest Vocation: Christian Motherhood in the Middle Ages* (Ithaca: Cornell University Press, 1991), pp. 162–164; Rosemary Hale, "Imitatio Mariae: Motherhood Motifs in Devotional Memoirs," *Mystics Quarterly* 16 (1990): 193–203.
24. Hadewijch, *The Complete Works,* trans. Mother Columba Hart, O.S.B. (New York: Paulist Press, 1980), pp. 345–350.
25. Friedrich Ohly, "*Cor amantis non angustum:* Vom Wohnen im Herzen," in *Gedenkschrift für Willial Foerste,* ed. Dietrich Hofmann and Willy Sanders (Niederdeutsche Schriften 18) (Cologne: Böhlau, 1970), pp. 457–459; Jager, *Book of the Heart,* pp. 65–86.
26. Jeffrey H. Hamburger, *Nuns as Artists: The Visual Culture of a Medieval Convent* (Berkeley: University of California Press, 1997), pp. 137–175.
27. Ruth Meyer, *Das "St. Katharinenthaler Schwesternbuch": Untersuchung, Edition, Kommentar* (Tübingen: Niemeyer, 1995) [hereafter *KS*]. On the convent's history, see Knoepfli, *Kunstdenkmäler,* pp. 15–23. On this genre, see Gertrud Jaron Lewis, *By Women, for Women, About Women: The Sister-Books of Fourteenth-Century Germany* (Toronto: Pontifical Institute of Mediaeval Studies, 1996).
28. *KS,* p. 131, ll. 80–85.

29. Cf. Lewis, *By Women,* p. 111, and Meyer's commentary to *KS,* pp. 264–265.
30. On Suso's devotional practices and engagement with visual images, see Hamburg *Visual and Visionary,* pp. 197–278.
31. Henry Suso, *The Exemplar, with Two German Sermons,* trans. Frank Tobin (Ne York: Paulist Press, 1989), p. 73.
32. Cf. Hamburger, *Visual and Visionary,* p. 202.
33. Hamburger, *Visual and Visionary,* pp. 200–202; and idem, *St. John the Divine: T Deified Evangelist in Medieval Art and Theology* (Berkeley: University of Californ Press, 2002), pp. 198–201.
34. Hamburger, *St. John,* p. 201.
35. The following account comes from Suso, *Exemplar,* pp. 70–71. Cf. Jager, *Book of t Heart,* pp. 99–100; Hamburger, *Visual and Visionary,* p. 263.
36. Bynum, "Female Body," pp. 187, 197.
37. Ulrich Engelen, "Die Edelsteine im Rheinischen Marienlob," *Frühmittelalterliche St dien* 7 (1973): 356.
38. Gertrude of Helfta, *The Herald of Divine Love,* trans. and ed. Margaret Winkwor (New York: Paulist Press, 1993), p. 124.
39. Gertrude of Helfta, *Herald,* pp. 124–125.
40. Gertrude of Helfta, *Herald,* p. 108.
41. See Arnold Angenendt, "'Der Leib ist klar, klar wie Kristall,'" in *Frömmigkeit im Mitte alter: Politisch-soziale Kontexte, visuelle Praxis, körperliche Ausdrucksform,* ed. Kla Schreiner (Munich: Fink, 2002), pp. 387–398; on Katharinenthal, see pp. 396–397.
42. On this sculpture, now in Antwerp, see Knoepfli, *Kunstdenkmäler,* pp. 227, 23 234, with bibliography; and the entry by Robert Suckale in *Krone und Schlei* pp. 409–412.
43. *KS,* p. 130, ll. 42–44.
44. *KS,* p. 101.
45. In this respect they anticipate Resurrection bodies; see Bynum, *Resurrection,* p. 254
46. *KS,* p. 102, ll. 4–17.
47. For critiques of the static, monocular view required in the pictorial perspective of t Renaissance, see Martin Jay, "Scopic Regimes of Modernity," in *Vision and Visuali* ed. Hal Foster (Seattle: Bay Press, 1988), pp. 3–23.
48. Medieval art history is lately experiencing heightened interest in "visuality" and "visu culture"; along with the works of Hamburger and those cited in note 9 above, see t very different studies by Herbert L. Kessler, *Spiritual Seeing: Picturing God's Invisib ity in Medieval Art* (Philadelphia: University of Pennsylvania Press, 2000); and Ma eline Caviness, *Visualizing Women in the Middle Ages: Sight, Spectacle, and Scop Economy* (Philadelphia: University of Pennsylvania Press, 2001). Although these a proaches have energized our field, the dominance accorded vision frequently com at the expense of other aspects of sensory experience, above all, touch. Cf. Joanna Ziegler, *Sculpture of Compassion: The Pietà and the Beguines in the Southern Lo Countries, c. 1300–c. 1600* (Brussels: Institut historique belge de Rome, 1992); Gord Rudy, *The Mystical Language of Sensation in the Middle Ages* (New York: Routledg 2002); and *Sensible Flesh: On Touch in Early Modern Culture,* ed. Elizabeth D. Harv (Philadelphia: University of Pennsylvania Press, 2003).
49. *KS,* p. 152, ll. 61–73
50. *KS,* p. 152, ll. 52–54.
51. Zurich, Schweizerisches Landesmuseum, LM 26117; *Das Graduale von St. Kathar nenthal um 1312* (Lucerne: Faksimile-Verlag, 1983). On these miniatures, see Ellen Beer, "Die Buchkunst des Graduale von St. Katharinenthal," in the facsimile's com

mentary volume, pp. 166–169 (fol. 258v), pp. 176–177 (fol. 158av); Knoepfli, *Kunstdenkmäler,* pp. 170–179; and *Krone und Schleier,* pp. 406–408.

52. Cf. Ewald Vetter, "*Mulier amicta sole* und *Mater salvatoris,*" *Münchner Jahrbuch der bildenden Kunst* 3, nos. 9–10 (1958–1959): 32–71.
53. See Hamburger, *St. John,* pl. 17.
54. Cf. Andreas Bräm, "Imitatio sanctorum: Überlegungen zur Stifterdarstellung im Graduale von St. Katharinenthal," *Zeitschrift für schweizerische Archäologie und Kunstgeschichte* 49 (1992): 103–112.
55. Also noted by Hans Belting, *Likeness and Presence: A History of the Image Before the Era of Art* (Chicago: University of Chicago Press, 1994), p. 416.
56. Cf. Gertrud Schiller, *Iconography of Christian Art* (Greenwich, Conn.: New York Graphic Society, 1971), 1:55–56 and pls. 130–135; Urner-Astholz, "Ungeborenen Kinder."
57. Cf. Helga Sciurie, "Die Frauenfrage und der Stil der deutschen Plastik zwischen 1270 und 1350," in *Stil und Gesellschaft: Ein Problemaufriss,* ed. Friedrich Möbius (Dresden: VEB, 1984), pp. 170–172.
58. Cf. the accounts of Adelhait Pfefferhartin (*KS,* p. 151, ll. 8–9, 16–17), Diemut von Lindow (*KS,* p. 116, l. 3), and Elsbeth Hainburgin (*KS,* p. 125, ll. 1–4).
59. On Mechthild's tenure at Helfta, see Bynum, "Women Mystics," pp. 228–234.
60. My translation, based on Margo Schmidt, "*die spilende minnevlüt:* Der Eros als Sein und Wirkkraft in der Trinität bei Mechthild von Magdeburg," in *Eine Höhe, über die nichts geht: Spezielle Glaubenserfahrung in der Frauenmystik?,* ed. Margo Schmidt and Dieter R. Bauer (Stuttgart: frommann-holzboog, 1986), pp. 106–107, differs slightly from that in Mechthild of Magdeburg, *The Flowing Light of the Godhead,* trans. Frank Tobin (New York: Paulist, 1998), book IV, chap. 14, pp. 157–158.

19. GLUTTONY AND THE ANTHROPOLOGY OF PAIN IN DANTE'S *INFERNO* AND *PURGATORIO*

I wish to thank Christoph Holzhey, Elena Lombardi, and Monika Otter for their comments on previous versions of this paper.

1. See Carla Casagrande and Silvana Vecchio, *I sette vizi capitali: Storia dei peccati nel Medioevo* (Torino: Einaudi, 2000), pp. 124–128; Terence Scully, *The Art of Cookery in the Middle Ages* (Woodbridge: Boydell Press, 1995), pp. 40–65; Madeleine Pelner Cosman, *Fabulous Feasts: Medieval Cookery and Ceremony* (New York: George Braziller, 1976), pp. 103–123.
2. Robin Kirkpatrick, "Dante and the Body," in *Framing Medieval Bodies,* ed. Sarah Kay and Miri Rubin (Manchester: Manchester University Press, 1996), pp. 236–253, esp. p. 239. Among the studies in the last two decades that have addressed the issue of the body in the *Divine Comedy,* see Caroline Walker Bynum, "Faith Imagining the Self: Somatomorphic Soul and Resurrection Body in Dante's *Divine Comedy,*" in *Faithful Imagining: Essays in Honor of Richard R. Niebuhr,* ed. Sang Hyun Lee, Wayne Proudfoot, and Albert Blackwell (Atlanta: Scholars Press, 1995), pp. 81–104; Michael Camille, "The Pose of the Queer: Dante's Gaze, Brunetto Latini's Body," in *Queering the Middle Ages,* ed. Glenn Burger and Steven F. Kruger (Minneapolis: University of Minnesota Press, 2001), pp. 57–86; Anna Maria Chiavacci Leonardi, "'Le bianche stole': Il tema della resurrezione nel *Paradiso,*" in *Dante e la Bibbia. Atti del Convegno Internazionale promosso da "Biblia": Firenze, 26–27–28 settembre 1986,* ed. Giovanni Barblan (Florence: Olschki, 1988), pp. 249–271; Rachel Jacoff, "Dante and the Legend(s) of

St. John," *Dante Studies* 117 (1999): 45–57, and "'Our Bodies, Our Selves': The Body the *Commedia,*" in *Sparks and Seeds: Medieval Literature and Its Afterlife,* ed. Dana Stewart and Alison Cornish (Turnhout: Brepols, 2000), pp. 119–137; Marianne Shairo, *Dante and the Knot of Body and Soul* (New York: St. Martin's Press, 1998); Jeff Schnapp, "Injured by the Light: Violence and *Paideia* in Dante's *Purgatorio,*" *Dante Studies* 111 (1993): 107–118; and the essays contained in *Dante and the Human Bo* ed. John Barnes (Dublin: Irish Academic Press, forthcoming).

3. Caroline Walker Bynum, *Holy Feast and Holy Fast: The Religious Significance of Fo to Medieval Women* (Berkeley: University of California Press, 1987).
4. Esther Cohen, "The Animated Pain of the Body," *American Historical Review* (2000): 41.
5. Agreeing with Cohen's scholarship, Mitchell Merback has argued that unlike tod in the past pain could be culturally constructed and performed (*The Thief, the Cr and the Wheel: Pain and the Spectacle of Punishment in Medieval and Renaissa Europe* [Chicago: University of Chicago Press, 1999]). In particular, Merback wa to show that pain in the Middle Ages and the Renaissance was thought to be—w the famous formulation by Elaine Scarry (*The Body in Pain: The Making and Unm ing of the World* [Oxford: Oxford University Press, 1985])—both "world destroyi and "world making." The same enterprise is endorsed, from a different perspective, Ariel Gluklich, *Sacred Pain: Hurting the Body for the Sake of the Soul* (Oxford: Oxf University Press, 2001).
6. Caroline Walker Bynum, *The Resurrection of the Body in Western Christianity, 20 1336* (New York: Columbia University Press, 1995).
7. Caroline Walker Bynum, "Why All the Fuss About the Body? A Medievalist's Persp tive," *Critical Inquiry* 22 (1995): 21.
8. Citations from the *Comedy* are from the edition "*La Commedia*" *secondo l'antica v gata,* ed. Giorgio Petrocchi (Milano: Mondadori, 1966–1967). Translations are, w occasional changes, from Dante Alighieri, *The Divine Comedy,* trans. Charles S. S gleton (Princeton: Princeton University Press, 1970–1975; repr., 1977).
9. See Manuele Gragnolati, "From Plurality to (Near) Unicity of Forms: Embryology *Purgatorio* 25," in *Dante for the New Millennium,* ed. Teodolinda Barolini and Way Storey (New York: Fordham University Press, 2003), pp. 192–210; for the extens scholarship on Statius's embryological account, which is one of the most debated p sages of Dante criticism, see especially the sources cited therein on pp. 193 and 20
10. See Teodolinda Barolini, *The Undivine Comedy: Detheologizing Dante* (Princet Princeton University Press, 1992), pp. 37–43.
11. For a discussion of Ciacco's (nick)name, see Eugenio Ragni, "Ciacco," in *Enciclope dantesca* (Roma: Istituto della Enciclopedia Italiana, 1970), 1:982–986.
12. Gino Casagrande, "'Per la dannosa colpa della gola' (Note sul contrapasso di *Infer* VI," *Studi danteschi* 62 (1990): 39–53.
13. See Casagrande, "'Per la dannosa colpa della gola,'" p. 48.
14. Two other cases of shades fully losing their human shape in hell are represented by t suicides (who are turned into bushes) and the thieves (who are turned into snakes)
15. On the idea that the pains of hell are more a manifestation of the damned souls' c ruption than an antithetical retribution for their sin, see Kenneth Gross, "Infer Metamorphoses: An Interpretation of Dante's 'Counterpass,'" *Modern Langua Notes* 100 (1985): 42–69; Anthony Cassel, *Dante's Fearful Art of Justice* (Toronto: U versity of Toronto Press, 1984), pp. 3–14; and Leonard Barkan, *The Gods Made Fle Metamorphosis and the Pursuit of Paganism* (New Haven: Yale University Press, 198 pp. 137–170.