WINDOWS ON A MEDIEVAL WORLD: MEDIEVAL PIETY AS REFLECTED IN THE LAPIDARY LITERATURE OF THE MIDDLE AGES

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by

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ABSTRACT

The lapidary literature of the Middle Ages has been overlooked as a source for the study of medieval Christian piety. These stone-lists, which expounded the magical and medicinal powers of stones, enjoyed a broad circulation throughout Europe both as Latin scientific writings as well as popular vernacular medicinal and religious texts. Recent scholarship in medieval lapidary literature has tended to marginalize the texts, treating them either as naïve prolegomena to modern scientific studies or as examples of an undercurrent of fabulous or pagan folk life. Investigations in the manuscript sources and distribution of the lapidary texts, however, show that the medieval lapidary was a popular, creative, and widely used genre of literature throughout European civilization. Scientific writers sought to explain the formation and various virtues of stones within the Aristotelian framework of medieval scholarship. Encyclopedic lapidaries were used in the university and royal court alike. Theological reflections within the literature claim divine authorship for the powers and virtues of stones as framed within the medieval doctrine of *exemplarism*. The vernacular language lapidary texts also give indication of the contours and characteristics of the popular piety of the unlettered masses. Given this broad spectrum of medieval society which is reflected within the lapidary texts, the lapidary literature of the Middle Ages is a veritable 'treasure chest' for the student of medieval religious life, offering a panoramic view of the religious piety – both scholarly and popular – of medieval European civilization.

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ABBREVIATIONS

ANL	Paul Studer & Joan Evans. *Anglo-Norman Lapidaries*. Paris, 1924; reprint Genève, Slatkine Reprints, 1976.
EETS	Early English Text Society.
EML	Joan Evans & Mary S. Serjeantson, editors. *English Medieval Lapidaries*. EETS 90. London: Oxford University Press, 1933.
Evans	Joan Evans. *Magical Jewels of the Middle Ages and the Renaissance*. New York: Dover Publications, 1922, 1976.
HMES	Lynn Thorndike. *History of Magic and Experimental Science*. Eight volumes. New York: Columbia University Press, 1951-58.
Laity	André Vauchez. *The Laity in the Middle Ages: Religious Beliefs and Devotional Practice*. Edited by Daniel E. Bornstein. Translated by Margery J. Schneider. Notre Dame: University of Notre Dame Press, 1993
Lambel	Volmar. *Das Steinbuch*. Edited by Hans Lambel. Heilbronn: Gebr. Henninger, 1877.
Litho	John M. Riddle. "Lithotherapy in the Middle Ages...Lapidaries Considered as Medical Texts," *Pharmacy in History* 12 (1970):39-50.
Marbode	John M. Riddle, ed. *Marbode of Rennes' (1025-1123) De Lapidibus considered as a medical treatise*. Wiesbaden: Franz Steiner Verlag, 1977.
PG	J.P. Migne, ed. *Patrologia Cursus Completus, Series Graeca*. 161 volumes. Paris: Migne, 1857-1866.
PL	J.P. Migne, ed. *Patrologiae Cursus Completus, Series Latina*. 221 volumes. Paris: Migne, 1844-1864.
Sarton	George Sarton. *Introduction to the History of Science*. Three volumes. Baltimore: Carnegie Institution of Washington, 1927-1948, 1950, 1953.
SpMW	André Vauchez. *Spirituality of the Medieval West: The Eighth to the Twelfth Century*. Translated by Colette Friedlander. Kalamazoo: Cistercian Publications, 1993
Summa	Thomas Aquinas. *Summa Theologicæ: Latin text and English translation, Introductions, Notes, Appendices and Glossaries*. New York: McGraw-Hill Book Company, 1972.
T/K	Lynn Thorndike & Pearl Kibre. *A Catalogue of Incipits of Mediaeval Scientific Writings in Latin*. Revised and Augmented Edition. Cambridge: The Mediaeval Academy of America, 1963.
Wyckoff	Albert Magnus. *De mineralibus*. Translated by Dorothy Wyckoff. Oxford: Clarendon Press, 1967.

CHAPTER ONE

INTRODUCTION

Peter Kitson, in his study of Anglo-Saxon lapidary texts, writes "jewels have always fascinated man. They have been admired simply for their beauty—their depth of colour and their different propensities for catching and reflecting light. The combination of these qualities, rare in nature, has encouraged the attribution to them of many magical and medical powers."[1] In the Middle Ages, from the eleventh to the fourteenth century, this fascination in stones and their powers exploded throughout European society as evidenced by the significant corpus of extant lapidary literature from every corner and strata of European civilization. Yet modern studies of these lapidary texts have not taken their historical provenance fully into consideration. As such, the corpus of lapidary literature has not been studied to the full potential of what it can offer modern students of the Middle Ages. Given the broad cultural fascination with stones, and the broad social and linguistic distribution of the lapidary texts, medieval lapidary traditions present a unique literary phenomenon that offer a rare window on medieval European culture and society, providing modern students of the Middle Ages an unparalleled vantage point from which they may view the entire breadth of medieval culture and society.

As Joan Evans and Mary Serjeantson point out, fascination with gems and "the ascription of...virtues to precious stones is older than written history." Classical authors

[1] Peter Kitson, "Lapidary traditions in Anglo-Saxon England: part I, the background; the Old English Lapidary," *Anglo-Saxon England* 7 (1978): 9.

in both ancient Greece and Rome composed early treatises on stone-lore.[2] From at least the seventh century with Isidore of Seville and certainly from the eleventh century with the landmark stone-list of Marbod bishop of Rennes,[3] the literary type known as the lapidary formed a standard part of the medieval encyclopedic tradition, emerging also as a popular vernacular literary type generally available to the literate public from as early as the eleventh century onwards.[4] With more than 616 lapidary texts extant,[5] it is clear that the medieval fascination with stones was not a marginal element of medieval thought and culture but rather a significant part of culture and learning of the Middle Ages.[6] As an artifact of a cultural and religious preoccupation, the medieval lapidary points to a widespread fascination with the vernacular culture of the day. As such, the texts provide a unique opportunity for students of the Middle Ages giving a panoramic window on the full breadth of medieval piety, from popular vernacular religious beliefs and practices to the deliberative thought of theologians, scientific writers of the time, as well as the vernacular piety of the masses.

This social and cultural background within which the lapidary texts were given birth, however, has not yet been allowed to set the context from which modern studies in lapidary texts and traditions has been approached. As such, recent studies in medieval lapidary literature have not examined the texts to their full potential as to what they might tell us about the character and functioning of medieval society and culture.

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[2] EML, xi.
[3] Evans, 33.
[4] Cf. London, B.L., Cotton Tiberius A III [The Old English Lapidary] in EML, 13-15.
[5] *Litho*, 40.
[6] Ibid., 41.

In recent scholarship, lapidaries have been studied through a number of disciplinary orientations. They have been examined as objects of textual studies, for their content as folklore and superstition, as source texts for early mineralogy as well as examples of early medicine; they have been studied to trace their transmission of thoughts from ancient times to present day, or as objects of curiosity for the modern twenty-first century on-looker seeking to find vestiges of contemporary scientific learning in the pages of history. These modern studies in medieval lapidary texts have fallen into three basic streams of inquiry. These can be characterized as studies in cultural folklore, studies in the history of magic, and studies in the history and transmission of manuscript evidence.

The folkloric treatment of stone-lore can be traced back to the turn of the century. Two volumes stand out as landmark studies. William Jones's *Precious Stones: Their History and Mystery*[7] and gemologist George Frederick Kunz's *The Curious Lore of Precious Stones*[8] present a wealth of material and research regarding the cultural lore surrounding gems and precious stones throughout history. Both present a comprehensive anthology of historical accounts and materials, but are limited in that they do not attempt a systematic and contextual study of stone-lore. Jacob Grimm in the third volume of his *Teutonic Mythology* also presents a short treatment of the subject.[9] His treatment is limited, however, by both the rarity of native vernacular Teutonic material relating to precious stones and his belief that "the miraculous and medicinal power of precious

[7] (London: Richard Bentley and Son, 1880; reprint Detroit: Singing Tree Press, 1968).
[8] (Philadelphia & London: J.B. Lippincott Company, 1913; reprint New York: Dover Publications, 1941).
[9] Jacob Grimm, *Teutonic Mythology*, volume three, translated from the Fourth Edition by James Steven Stallybrass (New York: Dover Publications, 1966), 1216-1222.

stones...never was naturalized among us."[10] More useful is the short article on gemstones in Hanns Bächtold-Stäubli's, *Handwörterbuch des deutschen Aberglaubens*[11] where precious stones are considered in a broader social context. However, Bächtold-Stäubli's article is likewise limited by the brevity with which stones and their magical properties are treated. The cultural lore as found in these volumes which summarize the contents of the standard lapidaries forms the foundation for the historical information commonly presented in standard contemporary texts on gemological studies.[12] Modern studies in gemology, however, focus more on the science and recent history of the field than an independent investigation into the historical fascination and belief regarding stones.[13]

The second category under which stone-lore has been treated is as part of the general history of magic. In his volume, Kunz discusses the so-called 'magical' use of stones in the Middle Ages. Set in amulets and talismans, gemstones along with herbs and body parts (both animal and human) were believed to possess occult virtues in sympathy

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[10] Ibid., 1216.

[11] Hanns Bächtold-Stäubli, *Handwörterbuch des deutschen Aberglaubens, herausgegeben unter besonderer Mitwirkung von E. Hoffmann-Krayer und Mitarbeit zahlreicher Fachgenossen von Hanns Bächtold-Stäubli*, volume two (Berlin: W. de Gruyter & Co., 1927-1942), 552-557.

[12] The treatment is far from intended to be a thorough study of historical stone-lore since the interest in modern gemology is geared more toward the modern scientific study of stones for commercial and cutting purposes. Scattered references to historical stone-lore are made throughout Robert Webster's *Gems: Their Sources, Descriptions and Identification*, fifth edition, revised by Peter G. Read (Oxford: Butterworth-Heinemann, 1962, 1970, 1975, 1983, 1994). Similar comments are also associated with individual stone descriptions in L.J. Spencer, *A Key to Precious Stones*, third edition (New York: Emerson Books Inc., 1971). Cornelius S. Hrulbut and Robert C. Kammerling in their text *Gemology*, second edition (Toronto: John Wiley & Sons Inc., 1991) give a very short introductory section (pp. 1-2) dealing with the history of gems. A broader study can be found in Paul E. Desautels's popular study *The Gem Kingdom* (New York: Random House, n.d.), 12-33. Desautels's volume focuses more on the development of the modern science of gemology than on a study of medieval theories. Many texts such as Peter G. Read's *Gemmology* (Oxford: Butterworth-Heinemann, 1991) do not deal with historical gem-lore at all.

[13] Sydney H. Ball's article "Luminous Gems, Mythical and Real," *Scientific Monthly* 47 (1938): 496-505 can be cited as an example. Ball's interest is in explaining the historical accounts of

with astrological forces which could be harnessed and used for purposes of health, wealth, personal growth and general well-being.[14] Comments and studies on the magical usage of precious stones are found scattered throughout studies on the history of magic. Richard Kieckhefer's *Magic in the Middle Ages* provides a general introduction to the field.[15] William Thomas and Kate Pavitt's *Book of Talismans, Amulets and Zodiacal Gems*[16] presents a good cross-cultural treatment of the use of stones in astrological magic. Stone-lore, however, is generally treated either in passing as a part of the larger area of the history of magic, or treated so narrowly that it remains divorced from the larger cultural milieu of the Middle Ages.

Peter Kitson notes that historical stone-lore is closely tied to the medieval science of medicine.[17] Lapidaries have thus also been studied as prolegomena to modern fields of medical science. Hermann Fühner presented a broad overview of the use of stones within medical practice both throughout history and from the cultures around the world.[18] Fühner's work is limited in that it remains a shallow inventory of materials rather than an in-depth study. C.J.S. Thompson devotes a chapter of his book *Magic and Healing* to a

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glowing gems based on scientifically recognized luminescent properties as observed in modern times.

[14] Cf. Richard Kieckhefer, *Magic in the Middle Ages* (Cambridge: Cambridge University Press, 1989).

[15] See ibid., 22, 103-105.

[16] (London: William Rider & Son, Ltd., 1914; reprint Detroit: Tower Books, 1971). Stones are also briefly treated in Charles R. Beard's *Lucks and Talismans* (London: Sampson Low, Marston & Co. Ltd., 1934) as a chapter in popular superstition.

[17] Kitson, 11-20.

[18] Hermann Fühner, *Lithotherapie: Historische Studien über die medizinische Verwendung der Edelsteine* (Berlin: S. Calvary & Co., 1902).

discussion of the medical-lore associated with precious stones.[19] This chapter, however, presents nothing more than a recounting of previous folkloric material. L. MacKinney also makes passing reference to the use of stones in medieval medicine, but clearly labels it magical superstition.[20] Recent studies such as Nancy G. Siraisi's *Medieval & Early Renaissance Medicine: An Introduction to Knowledge and Practice*[21] have similarly treated the medical use of stones as magical belief with only passing mention.[22] John M. Riddle offers the only comprehensive treatment of stone-lore in medieval medical practice published in recent times. He suggests that "the limited attention given by historians to these treatises, called lapidaries, is partly because it is harder to see them as an antecedent to a line of development in modern 'scientific' materia medica."[23] The bulk of medical research has focused instead on the herbal traditions, history of diagnosis and surgical practice while the medicinal use of stones is passed over as a magical aside, in spite, as Riddle writes, of the "convincing evidence that stones were used by medical men as an important part of therapeutics. Indeed, statements are made that stones were more important and useful than herbs."[24]

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[19] C.J.S. Thompson, *Magic and Healing* (New York: Rider & Company, 1947; reprint Detroit: Gale Research Company, 1973) chapter XVIII entitled "Precious and Rare Stones Employed in Healing" (pp. 120-125).

[20] L. MacKinney, *Early Medieval Medicine with special reference to France and Chartres* (Baltimore: The Johns Hopkins Press, 1937), 29.

[21] (Chicago: The University of Chicago Press, 1990).

[22] Ibid., 149, 152.

[23] *Litho*, 39. Bert Hansen comments that "our scientific mentality makes it difficult for us to imagine fully the experience of living in a world infused with purpose—all the way from the lowly ant, whose thrifty home economy was established by God as a parable to teach one how to live, to the grand motions of the celestial bodies, established both to declare the glory of God and to give light and heat, and even to the *primum mobile*, placed above the heavens to cause all other motions in the cosmos." Bert Hansen, "The Complementarity of Science and Magic before the Scientific Revolution," *American Scientist* 74 (1986), 134.

[24] *Litho*, 39. In addition to Riddle's article, there are also the articles by T.G.H. Drake, "The Eagle Stone, an Antique Obstetrical Amulet," *Bulletin of the History of Medicine* 8 (1940): 128-

The vast majority of research relating to lapidary texts has concentrated on the study of manuscripts and their transmission. The best general treatment is that of Alios Closs in his article "Die Steinbücher in kulturhistorischer Überschau."[25] Closs provides a concise history and overview of ancient lapidary literature from around the world. Joan Evans's study *Magical Jewels of the Middle Ages and the Renaissance, particularly in England*[26] also provides a detailed look at the lapidary traditions and stone-lore of medieval times. While comprehensive in its scope, Evans's book continues largely in the tradition of Kunz and Williams as an anthology of historical material without significantly tying it to the scientific and theological context of the Middle Ages. Similar comments can be offered for Joan Evans and Paul Studer's *Anglo-Norman Lapidaries*.[27] Lynn Thorndike's "De Lapidibus"[28] focuses exclusively on descriptions of selected medieval lapidary manuscripts. Paul Meyer in 1909 offered a series of articles with commentary and texts of the oldest French lapidaries,[29] and in 1933, Joan Evans and Mary Serjeantson published a collection of *English Mediaeval Lapidaries*.

132, and Thomas R. Forbes, "Chalcedony and Childbirth, Precious and Semi-Precious Stones as Obstetrical Amulets," *Yale Journal of Biology & Medicine* 35 (1963): 390-401 which provide narrow but welcomed historical investigations into the medical facet of medieval stone-lore.

[25] A. Closs, "Die Steinbücher in kulturhistorischer Überschau," *Graz Landesmuseum Joanneum Mineralogisches Mitteilungsblatt* 8 (1958): 1-34.

[26] See Evans.

[27] See ANL. Kitson, in his survey of modern scholarship also mentions J. Ruška's book *Das Steinbuch des Aristoteles* (Heidelberg, 1912) as an important work on the history of the Arabic lapidaries. He also makes mention of L. Baisier, *The Lapidaire Chrétien* (New York, 1936) and R.H. Terpening, "The Lapidary of L'Intelligenza: its Literary Background," *Neophilologus* 60 (1976): 75-88, both of which he considers to be riddled with errors and oversights. See Kitson, 9 note 2.

[28] Lynn Thorndike, "De Lapidibus," *Ambix* 8 (1960): 6-23.

[29] Paul Meyer, "Les Plus Anciens Lapidaires Français," *Romania* 38 (1909): 44-70; 254-285; 481-552.

Recent studies include Peter Kitson's investigations of the lapidary traditions in Anglo-Saxon England[30] as well as William Holler's articles on the French *Lapidary of Sydrac*.[31] John M. Riddle published a translation of the lapidary texts of Marbod of Rennes.'[32] Françoise Fery-Hue also recently published both the standard and a newly described text of the *Lapidaire Chrétien*.[33] Mention should also be made of Robert Halleux and Jacques Schamp's collection of the ancient Greek lapidaries that includes a Latin text and translation of the lapidary of Damigéron-Évaux—the source document for the lapidary of Marbod of Rennes.[34] All of the studies mentioned here deal specifically with manuscript description and transmission, and offer little insight into the world of medieval thought and piety which produced them. The only study dealing significantly with medieval scientific discussion on stone-lore is Lynn Thorndike in his massive eight-volume work, *History of Magic & Experimental Science*.[35] Medieval scientific discussions dealing specifically with the virtues and use of stones, however, are scattered among material relating to many other topics and debates of ancient scientific concern.

The words of Ananda Coomaraswamy regarding the modern approach toward the Middle Ages can equally be quoted in reference to the above mentioned studies in lapidary literature. Coomaraswamy comments that "the Middle Ages ... are mysterious to us only

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[30] Kitson, ibid. and idem, "Lapidary traditions in Anglo-Saxon England: part II, Bede's *Explanatio Apocalypsis* and related works," *Anglo-Saxon England* 12 (1983): 73-123.
[31] William H. Holler, "The Lapidary of Sydrac: New Evidence on the Origin of the Lapidaire Chrétien," *Manuscripta* 30, 3 (1986):181-190; idem, "Unusual Stone Lore in the Thirteenth-Century *Lapidary of Sydrac*," *Romance Notes* 20, 1 (1979):135-142.
[32] See *Marbode*.
[33] Françoise Fery-Hue, "Une version remaniée du *Lapidaire Chrétien en Vers*: le Manuscrit Paris, Bibl. Nat., Nouv. Acq. Fr. 11678," *Romania* 107 (1986): 92-103.
[34] Robert Halleux and Jacques Schamp, *Les Lapidaires Grecs* (Paris: Société d'Édition «des Belles Lettres», 1985).
[35] HMES in eight volumes.

because we know, not what to think, but what we like to think."[36] Throughout the literature surveyed above, lapidary texts have been treated as objects of investigation consistently overlooking their value as artifacts reflecting the religious and cultural life of the Middle Ages. Even though lapidaries stand alongside bestiaries and herbals, reflecting the symbolist mentality of the Middle Ages,[37] there has been no serious attempt in any of the studies to date at using the lapidary texts as windows through which the intellectual, theological, and vernacular religious culture of the Middle Ages can be unfolded and examined. Recent studies, as a result, have both marginalized the vast corpus of lapidary literature as a serious source for studies in medieval society and severely limited the contribution of the recent studies in lapidary texts to unfold the life and culture of the Middle Ages.

The study of medieval lapidary texts has been limited by the same methodological biases regarding social organization and tradition like those found in the works of Robert Redfield. Redfield posited that religious and cultural life could be divided into what he called 'great' and 'little' streams of tradition—the great tradition being the official views of the religious and cultural institutions and the little tradition being the opinions and religiosity of the common people. These two traditions, he suggests, are entirely independent from one another with the exception of certain elements that may extend into the popular religiosity of the masses through a trickle-down effect.[38] Leonard Primiano in

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[36] Ananda K. Coomaraswamy, "The Christian and Oriental, or True, Philosophy of Art," in *Christian & Oriental Philosophy of Art* (New York: Dover Publications, 1956), 38.
[37] M.D. Chenu, *Nature, Man and Society in the Twelfth Century*, edited and translated by Jerome Taylor and Lester K. Little (Toronto: University of Toronto Press & Medieval Academy of America, 1997) chapter three on "The Symbolist Mentality" pp. 99-145, esp. 115 note 40.
[38] Robert Redfield, "The Social Organization of Tradition," in *Peasant Society and Culture: An Anthropological Approach to Civilization* (Chicago: University of Chicago Press, 1956), 67-104.

his studies in folklore, however, points out that such a division of cultural traditions into a two-tiered model does "an extreme disservice"[39] to the religious beliefs being studied and in effect assigns them "an unofficial religious status."[40] Primiano states that "what scholars have referred to as 'official religion' does not, in fact, exist." He continues explaining that

> The use of the term "official religion" as a pedagogical tool has helped explain scholarly perspectives to the uninitiated, but remains an inadequate explanation for the nature of "religion." While it may be possible to refer to various components within a religious body as emically "official," meaning authoritative when used by empowered members within that religious tradition, such a designation when used by scholars is limited by the assumption that religion is synonymous with institutional or hierarchical authority.[41]

He argues instead that the "study of religious belief and believers should emphasize the integrated ideas and practices of all *individuals* living in human society"[42] and offers the term "vernacular religion"[43] as a means of speaking of the "variety of manifestations and perspectives found within past and present human religiosity."[44] Vernacular religion, he states, "is, by definition, religion as it is lived: as human beings encounter, understand,

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[39] Leonard Norman Primiano, "Vernacular Religion and the Search for Method in Religious Folklife," *Western Folklore* 54 (January, 1995): 38.

[40] Ibid. , 39. Carl von Sydow's refers to this as a "failure" on the part of investigators that "has been a heavy handicap to their work." Carl von Sydow, "Comparative Religion and Popular Tradition," in *Selected Papers on Folklore: Published on the Occasion of his 70th Birthday* (Copenhagen: Rosenkilde and Baggar, 1948) 166-167. Robert Redfield's theory has been widely criticized within anthropological circles. See for example Peter Brown, *The Cult of the Saints: Its Rise and Function in Latin Christianity* (Chicago: University of Chicago Press, 1981), William A. Christian Jr., *Apparitions in Late Medieval and Renaissance Spain* (Princeton: Princeton University Press, 1981) and idem, *Local Religion in Sixteenth Century Spain* (Princeton: Princeton University Press, 1981). Instead, there is a preference to speak of a reciprocal interpenetration between official and vernacular religious traditions. For an example of this, see Carlo Ginzburg, *Clues, Myths, and the Historical Method* (Baltimore: The Johns Hopkins University Press, 1989).

[41] Primiano, 45.

[42] Ibid., 47.

[43] Ibid., 41.

interpret, and practice it."[45] Karen Louise Jolly similarly comments that "it is a product of the community as a whole; it is the general, everyday practice of the religion, including the experience of the formal religion."[46] In the same way, André Vauchez, in his landmark book on medieval spirituality, argues for the study of medieval spirituality as "the dynamic unity between the content of a faith and the way in which it is lived by historically determined human beings."[47] Such a manner of investigation requires a shift of focus from the texts as objects in and of themselves divorced from the context of their provenance to a treatment of the text as an artifact produced by historically determined individuals which reflects the historical context in which they were forged.

When medieval lapidaries are revisited from this perspective, they offer a unique window that opens for the investigator a cross-section of the full breadth of medieval piety. This panoramic view encompasses not only the academic views of medieval scientists such as Albertus Magnus and learned divines such as Marbod of Rennes as well as the Latin Encyclopedists, but also that of the vast populous of masses which circulated the host of vernacular language manuscripts which allows investigators the opportunity to "reintegrate the unjustly neglected history of the laity into the history of the Church."[48] Lapidaries provide a vantage point from which both, what Howard Stone and James Duke call *embedded* and *deliberative* theologies and how they interacted in medieval society, can be studied. Stone and Duke define *embedded* thought as that system of belief which is "deeply in place and at work" and guides their decisions in people's places of "work and at

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[44] Ibid., 42.
[45] Ibid., 44.
[46] Karen Louise Jolly, *Popular Religion in Late Saxon England* (Chapel Hill: The University of North Carolina Pres, 1996), 20.
[47] *SpMW*, 9.

play, in our families and in society" as people live their daily lives according to what one has learned from what is heard and how faith is practiced in their community or culture[49] and *deliberative* thinking "is the understanding of faith that emerges from a process of carefully reflecting upon embedded theological convictions."[50]

Through an examination of representative lapidary texts and other relevant material, both embedded and deliberative thought regarding the medieval belief in the magical and medicinal powers of stones will be unfolded to sketch a caricature of the medieval cultural beliefs and fascination with stones. Rather than approaching lapidary texts as the products of a 'little tradition' reflecting an isolated corner of medieval society, this study will show that the medieval fascination with stones was a wide-spread phenomenon and that the corpus of lapidary texts provides a broad cross-section view of the world of medieval piety and thought. This study will demonstrate the value of lapidary literature as a window through which the full scope of the social and religious culture of the Middle Ages can be studied.

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[48] *Laity*, xvii.
[49] Howard W. Stone and James O. Duke, *How to Think Theologically* (Minneapolis: Fortress Press, 1996), 13-16.
[50] Ibid., 16.

CHAPTER TWO

MANUSCRIPT SOURCES OF MEDIEVAL LAPIDARY KNOWLEDGE

John Riddle, as noted in the previous chapter, has counted a total of 616 lapidary manuscripts extant from the eleventh to fifteenth centuries.[1] He writes that "so many lapidaries were formulated, both by well-known authors and by anonymous ones, that treatises on stones became one of the more popular types of medieval scientific literature."[2] Derived from Hellenistic and Alexandrian sources, classical lapidary knowledge was received through Greek and Arabic sources by Western Europe and the Latin Church as a cultural science. While there was a "break in the chain of Western lapidaries"[3] from the seventh to the eleventh centuries, beginning with the lapidary of Marbod, the eleventh century bishop of Rennes, there is an explosion of literature dealing with the virtues of stones.

Scholars have generally followed Joan Evans and George Sarton in their division of medieval lapidary texts.[4] Evans suggests a three-fold division of the manuscript corpus. The first group is that of the Popular Medieval Lapidary. Derived most directly from the eleventh century lapidary of Marbod, this group is by far the largest. The second division is that of the Christian Symbolic lapidary derived from biblical commentaries on the

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[1] See chapter one, note 5. Also *Marbode*, ix; also *Litho*: 40.
[2] *Litho*, 44.
[3] Evans, 31. ANL, xiii.
[4] The reader should note that Evans and Sarton are respectively eighty and fifty years old and are in need of being updated. In the absence of more recent references, however, they are still the best standard surveys of manuscript dating and transmission.

theological significance of stones. The third group of lapidaries, which Evans identifies, is the Scientific lapidary texts which reflect the speculations of scholastic philosophers on the nature and virtues of stones.[5] Evans treats astrological lapidaries separately in a subsequent chapter of her book.[6] Sarton's division is similar to Evans's except that he includes Marbod's lapidary in the corpus of scientific texts, limiting the magical lapidaries to those of astrological content.[7] Marbod's text and its derivatives are included within the group of scientific lapidaries based on its medicinal content and usage.[8] Evans's classification attempts to balance circulation with content whereas Sarton's classification focuses more specifically on content. Evans's division of the texts will be used for the purpose of this study since it more closely reflects the cultural reception of the material beginning with an overview of the classical sources of the Western medieval lapidary tradition.

Classical Sources

Lapidary knowledge was not an invention of the later Middle Ages but was pieced together from materials inherited from classical sources. Lapidary traditions of ancient

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[5] Riddle divides the corpus slightly differently. He suggests a three-fold division of scientific, magical or astrological and Christian lapidary texts. He includes Marbod's text within the corpus of scientific lapidaries based on its medicinal orientation. Thus in his estimation, both Hellenistic and Alexandrian sources serve as tributaries for the scientific perspectives on stones. As he notes, the magical or astrological lapidary is attributed also to Alexandrian sources. See *Marbode*, ibid.

[6] Evans, chapter 5.

[7] Riddle follows Sarton's divisions of the manuscript corpus. See *Marbode*, xi; also *Litho*, 39-40. Robert Halleux and Jacques Schamp use a four-fold division of the corpus of lapidary texts. They use the same basic categorical divisions as Sarton but treat the hermetic magical texts and the astrological treatises separately. See *Les Lapidaires Grecs* (Paris: Société D'Édition «Les Belles Lettres», 1985), xvi.

[8] Sarton sees the scientific lapidaries as derived from those of Theophrastus and Diascorides; the astrological or magical lapidaries from Alexandrian sources; and the Christian lapidaries as

Greece, Alexandria and the tradition of patristic commentaries on the biblical stone-lists merged as tributaries in the composition of the later medieval lapidary texts. These three sources roughly correspond to Evans's three divisions.

The first classical source which influenced the scientific thinking of medieval Europe is from Hellenistic Greece. Stones were traditionally analyzed using the theory of the four elements introduced by Hippocrates, and later codified by Plato and Theophrastus.[9] Stones were believed to be a combination of aqueous and fusible elements. Theophrastus also divided stones according to male and female and thus originated a theory of stones breeding. The early Greek lapidaries viewed stones and gems as essentially medicinal.[10] However, by the time of Pliny and the later authorities, the medical usefulness of stones was considered limited in favour of herbs and animal parts. Peter Kitson notes that there are three primary sources through which Hellenistic lapidary science was transmitted to later medieval Europe. He identifies these as Pliny the Elder's *Natural History,* the *Collectanea Rerum Memorabilium* of Caius Julius Solinus and the *Etymologies* of Isidore of Seville.[11]

The first classical authority noted by Kitson is that of Pliny the Elder. Pliny discusses the topic of stones in Book XXXVII of his *Natural History.*[12] The work was

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derived from Jewish and Christian biblical interpretations of Aaron's breastplate and the foundation stones in Revelation. See Sarton I: 764

[9] Studer & Evans note that Theophrastus's lapidary probably dates to around 315 BC. ANL, ix.

[10] Evans notes that "Dioscorides in the fifth book of his *Materia Medica* considers some two hundred 'stones' from a medicinal point of view, and though the majority are oxides and other minerals, a few authentic gems are also included." Evans, 15-16.

[11] Peter Kitson, "Lapidary traditions in Anglo-Saxon England: part I, the background; the Old English Lapidary," *Anglo-Saxon England* 7 (1978), 10.

[12] A Latin and English translation of Book XXXVII of Pliny's *Natural History* can be found in volume ten of the Loeb Classical Library, edited by D.E. Eichholz (Cambridge: Harvard University Press, 1949).

dedicated to a certain Titus in 77 AD.[13] He presents an extensive discussion on the formation and composition of stones. He borrowed from numerous earlier sources of which only Theophrastus's *Περί Λίθων* and the Orphic *Lithica* are known.[14] While he does on occasion include comments on the magical properties of gems and stones, "his skepticism is unwavering."[15] Pliny considered herbs and animal parts to possess greater medicinal value. He "wrote his lapidary as a man of science, taking his information at second-hand, but criticizing it rationally." Evans notes that "this remained the traditional Roman point of view."[16] Sarton notes Pliny's "influence throughout the Middle Ages was very great."[17] There are seven manuscripts of Pliny's lapidary known from the tenth to the fifteenth century.[18]

The second classical source is Caius Julius Solinus's *Collectanea Rerum Memorabilium* which was known in the Middle Ages under the name of *Polyhistor seu de*

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[13] Sarton I: 249.

[14] Commenting on the sources, Evans writes "They include Sotacus, probably a physician at the Persian Court, whom he describes [xxxvi, cap. xxxviii.] as one of the most ancient writes on the subject; Sudines and Zenothemis; Nicander; Democritus of Abdera; Zoroastres the Magian; Callistratus; Metrdoros of Scepsis; Zachalias the Babylonian; Archelaus of Cappadocia; Iacchus; Cocchus; Juba II af Numidia; and Asarubas, a Carthaginian contemporary." Evans, 16. Cf. also C.W. King, *Natural Hsitory, Ancient and Modern of Precious Stones and Gems and of the Precious Metals* (London: Bell and Daldy, 1865), 1-2. Theophrastus's text probably dates to around 315 BC. Evans, 15.

[15] Evans, 16-17.

[16] Evans, 17.

[17] Sarton I: 249. Studer & Evans note that Pliny was the principle source for Isidore of Seville's *Etymologies*. See ANL, x. The eleventh and twelfth centuries witnessed a renaissance of classical sciences. The re-infusion of lapidaries through Hildefonse and Marbod is but one example of this. They comment that "though the scholars of the eleventh century had inherited a considerable tradition of ancient science, such knowledge was not at that moment a living and growing force. Men were setting out on the search for philosophical truth, but they were overwhelmed by the mass of data they had inherited, and were as yet unable to seek for themselves after cause and effect by observation and experiment ... the eleventh century was an Age of Faith and not of reason in the whole sphere of exact knowledge." ANL, xv.

[18] For a list of manuscripts see Pliny, *Natural History*, xvii-xviii. Compare T/K index, 1889 *Pliny the Elder, Natural History*.

mirabilibus mundi.[19] The original text dates from the third or fourth century AD.[20] It is a reworking of Pliny's *Natural History* reflecting the same views as the latter.[21] Like Pliny, Solinus is skeptical of magical properties associated with stones. Magical properties of stones are rarely recorded. Solinus is quoted alongside Pliny in the later Middle Ages. Sarton writes that there are "many incunabula editions, the first being probably that of Venice, 1473" and at least two undated editions which may be earlier.[22]

The third classical authority that Kitson identifies is the *Etymologies* of Isidore of Seville (c. 560-636).[23] Written in Spain between 622 and 633,[24] the *Etymologies* is a compendium of classical science drawn from the ancient and patristic authorities. "It served as a model for later encyclopedias and its influence upon mediaeval thought was very great."[25] He adopts the perspective of Hellenism and lays little stress on magical virtues.[26] His discussion of stones in book XVI of his encyclopedia follows the skepticism of Pliny.[27] While he admits that stones might have some medicinal value, the order in which he treats stones in relation to the rest of his medical sections indicates that this value is slight in his estimation. Falling into the patristic period, and having been written by a bishop of the Church, Isidore's lapidary ensured the transmission of both Hellenistic

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[19] Sarton notes that this name was likely given to it by a sixth century editor. See Sarton I: 341.
[20] Evans, 17.
[21] King (p. 6) states that Solinus is more precise.
[22] Sarton I: 341. See also T/K index, 1296 *Solinus, Polihistor*.
[23] Isidore of Seville, "Etymologiarum libri XX," PL 82:559-598.
[24] Sarton I: 471.
[25] Sarton I: 471.
[26] EML, xi.
[27] Evans writes that "Amiantos [iv. 18], it is true, is said to resist all poisoning, especially by magicians, and sideritis to excite discord; but in all other cases the asseverations of the *magi* are quoted with an incredulity worthy of Pliny. Jasper is held by some to give aid and protection to its wearer: 'quod credere non fidei, sed superstitionis est.'" Evans, 31.

scientific theories and lapidary lore into the later Middle Ages.[28] The earliest printed edition appeared in Augsburg in 1472 and another in Strasbourg c. 1473.[29] The entire text of the Etymologies is available in a critical edition edited by W. M. Lindsay.[30]

Parallel to the scientific lapidaries of antiquity flowed the stream of Christian symbolic interpretations of the stones of Aaron's breastplate (Exodus 28:17-20), the nine ornaments of the king of Tyre (Ezekiel 28:13), and the twelve stones in the foundation of the heavenly Jerusalem (Revelation 21:19-20).[31] As Peter Kitson notes, this tradition of biblical exegesis has been "largely neglected by lapidary historians."[32] While the early Christian Church followed in the spirit of the Hellenistic writers and rejected the magical use of stones,[33] it proceeded also to expound on the moral, symbolic and mystical significance of the biblical stones.[34] This tradition of allegorical interpretation is no less important for the cultural significance of late medieval stone-lore as it laid the foundation for the religious significance and use of stones in the later medieval Church.

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[28] EML, xi.
[29] Sarton I: 471. For other manuscripts see T/K index, 1829 *Isidore of Seville, Etymologiarum.*
[30] Isidore of Seville, *Isidori Hispalensis Episcopi, Etymologiarvm sive originvm: Libri XX*, two volumes (Oxford, 1911).
[31] Kitson notes that there is also "a small number of jewels ... described in works of more general literary appeal." Kitson, 20. One example would be St. Hildefonse's description of the stones in *In Corona B. Virginis Mariae*. See PL 97: 287.
[32] Kitson, 22.
[33] Evans notes that the early Church was "opposed to magic in all its forms, condemned the engraved talisman, but carried on the tradition of the medicinal amulet." Evans, 29.
[34] This is comparable to the Augustinian hermeneutical synthesis which in addition to the literal meaning of the Scriptural text added also allegorical (symbolic), tropological (moral), and anagogical (mystical) interpretations. See, for example, Karlfried Froehlich trans. & ed., *Biblical Interpretation in the Early Church* (Philadelphia: Fortress Press, 1984), 28. Umberto Eco notes that the world was interpreted in the same manner as the Bible, "for the theory of Biblical exegesis was thought to be valid also for nature." Umberto Eco, *Art and Beauty in the Middle Ages*, translated by Hugh Bredin (New Haven: Yale University Press, 1986), 59.

The earliest known Christian commentary is ascribed to Epiphanius, the fourth century bishop of Salamis. In his letter *De duodecim lapidibus*[35] addressed to Diodorus, the bishop of Tyre, Epiphanius unfolds the symbolic meaning of the stones of Aaron's breastplate. His commentary is interspersed with references to medicinal usages of the stones as well as a few survivals of Hellenistic origin. This work was familiar to later church fathers including Jerome who made use of it in his commentaries on Isaiah[36] and Ezekiel,[37] with constant reference to Pliny[38] as his scientific authority, as well as the Venerable Bede who used it in the writing of his *Explanatio Apocalypsis*.[39] As Riddle notes, there were many similar commentaries which expounded the religious significance of stones.[40] This stream of allegorical interpretation of stones, animals and plants also emerges in the writings of Clement of Alexandria and Basil the Great,[41] Gregory the Great,[42] and Hrabanus Maurus.[43] Sarton notes that this exegetical tradition "can be traced

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[35] PG 43:294-320. The text of the letter is also printed in Robert P. Blake, *Epiphanius De Gemmis* (London, 1934). Cf. also Athanasius of Sinai *Quaestiones*, 40 and 46, PG 89: 587-590. The text is known in three Greek versions, one almost-complete Latin text, Coptic-Sahidic fragments, an Armenian translation from a lost Syriac edition dating to the seventh century, and a complete Georgian text translated c. 900 AD. The letter was originally written in 394 AD. See Halleux and Schamp, xxxi-xxxii.

[36] *Commentariorum in Isaiam*, 15, PL 24: 52CD, 525 AB.

[37] *Commentaria in Ezechielem*, I, 9, PL 25: 271 C.

[38] See for example Jerome's discussion on the four species of diamond and their respective qualities as found in his commentary *Commentaria in Amos*, PL 25: 1071-1074 which is taken from Pliny's *Natural History* XXXVII, 57. References to Pliny can also be found in other early fathers such as Origen *In Ps., 118*, 127 edited by J. B. Pitra, *Analecta sacra*, w (1884): 341-342 and Ambrose *Exposito in Psalmun CXVIII*, Sermon 16 chapters 41 and 42, PL 15: 1438-1439 (cf. Pliny, XXXVII, 107-109). See Halleaux and Schamp, xix.

[39] *Explanatio Apocalypsis*, 3, PL 93: 197-203. See Peter Kitson, "Lapidary traditions in Anglo-Saxon England: part II, Bede's *Explanatio Apocalypsis* and related works," *Anglo-Saxon England* 12 (1983): 73-123 for an extensive discussion of the history of English lapidary traditions.

[40] *Marbode*, 21.

[41] See Halleux & Schamp, xxxiii.

[42] Gregory the Great, *Homiliae in Evangelia*, xxxiv.7 PL 76: 1250. Gregory "gives a list of the stones appertaining to the nine orders of Angels: sard to the Seraphim, topaz to the Cherubim, jasper to the Thrones, chrysolite to the Dominations, onyx to the Principalities, beryl to the Powers,

in Bede and Hrabanus Maurus, but then it disappeared for many centuries."[44] It emerged again in the later Middle Ages with writers such as Marbod,[45] Walafrid Strabo[46] and the later Victorines Richard and Hugh.[47]

The third classical source that contributed to the corpus of medieval lapidary knowledge comes from ancient Alexandria. This entered into Western Europe through two independent streams. The first is that of the hermetic lapidaries which transmitted into medieval Europe most broadly through the figure of Marbod.[48] The second are the astrological lapidaries that entered Europe via Spain by way of Arabic sources. Influenced by the school of Healers founded about 148 BC,[49] the Alexandrian lapidary focused on an applied use of stones rather than the Hellenistic descriptive approach. This characteristic of classical Alexandrian texts has lead to them being unfairly labeled as 'superstitious' by some modern scholars[50] as opposed to the Hellenistic sources that remain largely descriptive. The hermetic texts underlie the popular lapidary texts of the Middle Ages,

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sapphire to the Virtues, carbuncle to the Archangels, and emerald to the Angels." Evans, 79 Cf. also *In exposito Beati Job Moralia*, PL 76: 82C.

[43] Hrabanus Maurus, *De universo*, 17, PL 111: 462-74 which was compiled as a sort of encyclopedia c. 844 (see Sarton I: 555). It is a moralizing treatise in which a religious significance is given for every stone following the allegorical tradition of the early Church in which the pagan material is treated as a perennial allegory of divine truth. Bede handles the material in the same way. See also idem, *Commentaria in Ezechielem*, 2, PL 110: 541.

[44] Sarton I: 764.

[45] *De duodecim lapidibus pretiosis*, PL 171: 1771-2 and *Lapidum pretiosorum*, PL 171: 1771-1774. Text and translation are presented in *Marbode*, 119-121 and 125-129 respectively.

[46] *Glossa ordinaria*, PL 94: 148-9. Even though the *Glossa* is ascribed to Walafrid, it it considered to be the work of several authors.

[47] ANL, xvi. Riddle notes that the lapidaries ascribed to Marbod's contemporary Hildebert are in fact Marbod's text. *Marbode*, 3.

[48] Evans writes that Marbod and Isidore are the two prime figures through which lapidary-lore entered into later medieval Europe. See EML, xi.

[49] Evans, 17.

[50] Cf. Evans, 19. Coomaraswamy note that "most of the things that Plato called 'ideas' are only 'superstitions' to us." Ananda K. Coomaraswamy, "The Christian and Oriental, or True

whereas the astrological texts which also entered into the stream of medical science but did not enjoy the same popularity as did the later scientific lapidaries.[51]

An important Alexandrian lapidary which is ascribed to Cyranus King of Persia is that of *Kyranides*. The text itself is difficult to date.[52] It contains a medley of Greek festivals, Mithraic rites, Babylonian astrology, Jewish religion and Greek medicine.[53] Gerard of Cremona who died in 1175 translated it into Latin [London, B.L., Sloane 284, fol. 90-129, fifteenth century].[54] *Kyranides* is an alphabetic medical text which lists and describes the medical virtues for an herb, a bird, a stone, and a fish (symbolizing earth, air, fire and water) for each letter of the alphabet from alpha to omega.[55] It circulated primarily as an authority for medieval scientific and alchemical writers but did not attain a significant popular appeal.[56]

Philosophy of Art," in *Christian & Oriental Philosophy of Art* (New York: Dover Publications, 1956), 33.

[51] *Marbode*, xi. Studer & Evans comment, "The astrological lore of Alexandria had been reflected in lapidaries that sought by means of planetary and stellar sigils to establish or to strengthen a relation between the wearer and the celestial powers. Alexandrian astrology, like Alexandrian science, passed with the decline of Hellenism into the keeping of the Arabs, but since it was less directly comprehensible and in some respects less congenial to the Latin genius it was slower in its progress through the Western lands. The belief in the virtue of engraved gems, ridiculed by Pliny, is found neither in Carolingian France nor in Anglo-Saxon England. Its first Western manifestations appear in the middle of the twelfth century, and are therefore independent of the Marbodean tradition." ANL, xvii.

[52] Ronnie H. Terpening, "The Lapidary of *L'Intelligenza*: Its Literary Background," *Neophilologus* 60 (1976), 77.

[53] Evans, 18.

[54] Ibid.

[55] Halleux and Schamp, xxvi-xxvii. See also Evans, 18. ANL, xi.

[56] *Kyranides* appears to be the classical source for the later medieval traditions about the toad-stone, the "rhinoceros, or unicorn; of the pelican, whose self-sacrifice found her a place in the iconography of the Christian Church; of the salamander, and of the lover, who breathing the breath of a sick person bears his sickness from him heavenwards." Evans, 19.

More important in terms of a broad influence upon the later medieval cultural lore of stones is the lapidary text ascribed to the figure of Damigeron.[57] The Greek original is known only in fragments in the second book of the medical collections of Aetius. The complete text, however, survives in a Latin translation ascribed variously to the first or to the fifth or sixth century.[58] According to its opening letters and prologue, it purports to present the secret Egyptian science of stones. It is known in a 14th century manuscript which, Evans reports, was preserved in the Bibliothèque Nationale de France [MS. Lat. 7418, fol. 116-23 V.], an earlier text in the Bodleian Library differs in some respects from that of the Bibliothèque Nationale [Hatton MS. 76, fol. 131-9], and a third manuscript from the late twelfth century, which formerly belonging to St. Augustine's in Canterbury, but was, at the Evans's writing of *Magical Jewels*, preserved in the Bibliothèque Nationale [Nouv. Acq. Lat. 873, fol. 176-189]. Evans comments that with the exception of a few corruptions, the text agrees with the Oxford manuscript.[59] The lapidary of Damigeron has been recognized to be the principal source for the later famous lapidary of Marbod, bishop of Rennes.[60]

Also worthy of mention is the Hermetic verse lapidary known as the *Lithica*.[61] This text which was first attributed to Orpheus by Tzetzes lists over twenty stones with a

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[57] Halleux and Schamp, 193-290 for a copy of the Latin text and French translation with an extensive textual discussion. See also Robert Halleux, "Damigéron, Evaux et Marbod: l'héritage alexandrin dans les lapidaries médiévaux," *Studi Medievali* 15 (1974): 327-347.
[58] Evans, 20.
[59] Evans, 21. See also ANL, xii. For a listing of manuscripts, see also T/K index, 1782 *Damigeron*.
[60] Robert Halleux, *Studi Medievali*. See also Evans, 21.
[61] See Halleux and Schamp, 1-123 for a printing of the Greek text with French translation. Halleux and Schamp also provide an extensive textual discussion. An English translation may be found in King, 375-398. See also Alios Closs, "Die Steinbücher in kulturhistorischer Überschau," *Graz Landesmuseum Joanneum Mineralogisches Mitteilungsblatt* 8 (1958): 8.

listing of their specific virtues. It was once thought to be the source for the opinion popularized through Marbod that "there is great force in herbs, but far greater in stones,"[62] however, as Riddle has shown, the *Lithica* was not known until much later and so could not have been a reference for Marbod's text.[63]

Popular Medieval Lapidaries

Evans notes that the first lapidary to emerge upon the scene in the late Middle Ages was what she calls the "popular medieval lapidary."[64] The popular lapidary circulated primarily as a medical text[65] and was derived directly from the *de lapidibus* of Marbod that was written some time between 1067 and 1081.[66] Sarton notes that Marbod's text combines the earlier scientific and magical traditions.[67] Evans places Marbod along side of Isidore as one of the two most influential figures in the transmission of classical stone-lore into the late Middle Ages.[68] Marbod's lapidary is recognized to be

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[62] HMES I: 296.
[63] *Marbode*, 9.
[64] Evans notes that "the twelfth century inherited its lapidary tradition direct from Marbode. The scientific lapidary, the mineralogical treatise, lacked as yet a mediaeval representative; the astrological lapidary of engraved gems had as yet neither been translated into a European language nor brought to the West: and the two types of lapidary, the popular and the symbolic of each of which Marbode may have left en example, continued to be the types followed in the century after his death." Evans, 53-54.
[65] Riddle notes this significant development. Unlike the earlier lapidaries, Marbod emphasizes how stones are to be used rather than simply providing a description and a listing of their qualities. See *Marbode*, x.
[66] Evans, 33. Cf. King, 7. Studer & Evans count "nearly forty in English public collections along, and more than a hundred are known in continental libraries." ANL, xiii. "No less than six Old French verse translations" are made directly from Marbod's text. "In addition there are at least five prose versions (preserved in twelve manuscripts) and one verse adaptation of the First French Version in existence, and very few mediaeval lapidaries will be found free from the direct of indirect influence of his work." ANL, xvi.
[67] Sarton I: 764-765. See also ANL, xiv.
[68] EML, xi.

a reworking of the lapidary of Damigeron[69], which also includes material taken from Isidore and other classical authorities.[70] Sarton claims that the scientific and magical traditions merge in Marbod's text.[71] It differs from the earlier texts in that it appears to have been written as a practical medical guide. The content of the lapidary is entirely pagan.[72] This has lead some scholars to question whether the eleventh century bishop is actually the author of the treatise.[73] "That a Bishop should aid in the spread of magical knowledge seems strange now, but it must be remembered that it was accepted as a scientific fact in the middle ages that precious stones had magical and curative properties."[74] Some would assert that Marbod's vocation as a bishop is inconsistent with the pagan nature and content of the text.[75] This reflects a contemporary judgment upon Marbod and his times rather than the context of the Middle Ages, which commonly saw

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[69] Halleaux, *Studi Medievali,* 327-347. The precise sources which Marbod used, however, has not yet been definitively determined. There has as of yet been no-one brave enough to tackle the task of preparing a critical edition of Marbod's lapidary. Studer & Evans state, "it is, perhaps, the number of these manuscripts that has deterred Latin scholars from producing a critical edition of Marbode's text." ANL, xiii. See also *Marbode*, 25.

[70] Riddle notes that echoes of Isidore, Pliny as well as Damigeron can be seen in his lapidary. See *Marbode*, 6, 8ff. He comments further that it is unclear, however, what criteria Marbod used in the selection of his material.

[71] Sarton I: 764-765.

[72] Cf. William M. Holler, "The Lapidary of Sydrac: New Evidence on the Origin of the *Lapidaire Chrétien*," *Manuscripta* 30 (1986): 182.

[73] *Marbode*, 6-7. Lynn Thorndike comments that Marbod's pagan treatise "... so shocked some moderns that suggestions have been made, in order to explain away the acceptance of talismanic powers of gems to such a degree by a Christian clergyman who became a bishop, that Marbod must have composed his poem when quite young and lived to repent of it, or that he regarded it merely as a poetical flight and exercise, not as an exposition of scientific fact. But was it not only widely read in the twelfth century but also widely cited as an authority in the scientific and equally Christian thirteenth century? No; everyone else took it precisely as Marbod meant it, as a serious statement of the marvelous powers which had been divinely implanted in gems." HMES I: 780-1. Cf. ANL, xv.

[74] J. Horace Nunemaker, "A Comparison of the Lapidary of Marbode with a Spanish Fifteenth-Century Adaptation," *Speculum* 13 (1938): 62.

[75] See Evans, 34. "Most of the editors of the poem have expressed surprise at its pagan character." ANL, xiv. Cf. also Closs, 5-6.

within the 'pagan' myths an allegory of salvation.[76] Whether the lapidary was actually penned by him or not, however, is irrelevant since its broad circulation illustrates the extent to which it this supposedly 'pagan' text reflected the cultural views of the Middle Ages.[77] Sarton comments that the text was "immensely popular."[78] The later popularity of the text illustrates that the perspectives contained in the lapidary were not considered to be contrary to those of the later Christian culture. Studer and Evans note that "there are nearly forty [manuscripts] in English public collections alone and more than a hundred are known in continental libraries."[79] Out of the 616 lapidary manuscripts examined by John Riddle, he notes that 125 of them were Marbod's.[80] Given that it was published on the eve of popular literacy, this makes *de lapidibus* a medieval "best seller."[81]

The text was likely compiled towards the end of the eleventh century.[82] This poem of 732 hexameter lines, which treats 60 stones, is written in a flowing Latin.[83] Riddle notes that it is a "masterpiece of eleventh century scholarship."[84] The lapidary was written and circulated as a practical medicinal guide. Editions of it are known throughout the Middle Ages. The popularity of the text is attested to in that Marbod came to be known

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[76] "The scholars of the eleventh century felt too profound a respect for the incomprehensible learning of the ancients to venture to criticize their information or to revise their conclusions." ANL, xiv.
[77] *Marbode*, 21.
[78] Sarton I: 764.
[79] ANL, xiii.
[80] *Marbode*, ix. Riddle cites the number of 137 mss in *Litho*, 44. Sarton states there are more than 140 manuscripts (I: 765). See also T/K index, 1858 *Marbod, Lapidum* for a listing of manuscripts.
[81] *Marbode*, x.
[82] Riddle suggests a date of 1090. See *Marbode*, 2 for a discussion of the dating of the lapidary.
[83] Maurice Delbouille, "Un mystérieux ami de Marbode; le 'redoutable poète' Gautier," *Le Moyen Age* 47 (1951): 205-240.
[84] *Marbode*, 5.

later in the Middle Ages simply as *Lapidarius*.[85] Today, more than a hundred manuscripts of the work are known.[86] Riddle notes that there are four Latin manuscripts known from the eleventh century.[87] Later vernacular texts, however, range from close translations to loose paraphrases often merging Christian Symbolic elements into the text. Thus Nunemaker is right in calling a fifteenth century Spanish text an 'adaptation' rather than a translation.[88] Translations, paraphrases, and adaptations are known in numerous vernaculars[89] including French,[90] Provençal, Italian,[91] Irish, Danish,[92] Spanish[93] and even Hebrew.[94] An Old Icelandic medical miscellany also includes a fragment of the Evaux lapidary.[95]

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[85] *Marbode*, 11.

[86] See Evans, 33 note 2 for a listing of manuscripts.

[87] *Marbode*, 2.

[88] He notes that "translators always altered the original Latin text, and shortened or lengthened it" and that versions vary in the number of stones listed. The "Spanish text describes only forty-two stones as compared with sixty in the French version. Of these forty-two eight are not found in Marbode." Some adaptations try to preserve a verse structure as used in the Latin, others present their material in a prose text. See Nunemaker, 62-3. See also Evans, 53-72 for a more extensive discussion of selected manuscripts.

[89] Sarton I: 764. For a listing of vernacular lapidary manuscripts see Evans, 34 and ANL, xv-xvi.

[90] See L. Pannier, *Les Lapidaires Français du Moyen Âge* (Paris, 1882), 20-188. Evans notes that the French lapidaries are "for the most part direct verse translations of Marbode's hexameter lapidary." Evans, 54. Sarton notes twelve French versions in both verse and prose (I: 764)

[91] See Evans, 68-69. For a discussion of Italian lapidary texts see the article by Terpening, "*L'Intelligenza*."

[92] See Henrik Harpestrenes, *Danske Lægenbog* (Copenhagen, 1826), 133-153.

[93] See Karl Volmöller, ed., *Ein spanisches Steinbuch* (Heilbronn, 1880). See Nunemaker, 62-67 for a comparison of this Spanish adaptation with the first French version as printed in ANL. The same lapidary is cited also in Gallardo, *Ensayo de una biblioteca española* (Madrid, 1863), volume I, 891. Evans notes that Spanish medieval lapidaries, while not as numerous as those in other regions of Europe, are interesting "since they frequently incorporate material from Arabic sources...the most interesting Spanish lapidaries are usually astrological in character and deal with engraved gems." Evans, 69. See also Marcelino V. Amasuno's discussion of Alfonso's lapidary in "En torno a las fuentes de la literatura científica de siglo XIII: presencia del Lapidario de Aristóteles en el alfonsí," *Revista Canadiense de Estudios Hispanicos* 9 (1985): 299-328.

[94] See Evans, 34.

[95] Described by Henning Larsen, the Old Icelandic lapidary ms. Royal Irish Academy 23 D43 is part of the most important medical miscellany from medieval Iceland. This particular manuscript

Due to the wide distribution and influence of Marbod's text, Evans has called it the "lapidary *par excellence* of the Middle Ages."[96] Interestingly, as Evans notes, "the popular rhymed lapidary is absent from English mediaeval literature; there is no verse translation of Marbode's work in English except for a few stanzas by Abraham Fleming quoted by Scot in the sixteenth century. But a considerable number of English manuscripts exist of lapidaries in Latin, French, and English, of which the majority show a preponderating medical element."[97] Sarton notes that the popular lapidary remained entirely 'pagan' in its content until the 13th century when elements of the Christian symbolic tradition merged with it for the first time.[98] The genre of the popular lapidary is derived from Marbod's text and was a widely circulated and read piece of literature in from the 13th to 15th century.

Scientific Lapidaries

Lapidaries also emerged as a popular genre of scientific literature.[99] Where the popular lapidary followed a traditional format as a medical treatise, the new science of the twelfth and following centuries sought to provide a systematic explanation of cosmic phenomena according to the metaphysical theories of Aristotle. The reintroduction of Aristotle gave rise to the corpus of modern scientific writings including what can be considered the first modern 'scientific' treatises on mineralogy. Closely associated are

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includes an Evaux prologue and a list of only two stones. That the text likely contained the entire lapidary, however, is probable as Larsen suggests, because a fuller listing of stones is given in other related manuscripts (Trinity L-2-27). The miscellany dates to the 15th century. See Henning Larsen, *An Old Icelandic Miscellany* (Oslo: I Kommisjon Hos Jacob Dybwad, 1931), 1, 4, 44-45.

[96] Evans, 35.

[97] Evans, 69. She notes that "The French popular lapidary is almost always an artistic literary creation; the English is almost invariable a plain and unadorned treatise." Ibid., 72.

[98] Sarton I: 764.

also the encyclopedic writings in which the unity and sum of knowledge was to be presented.

The most important work on mineralogy in the Middle Ages and also the first modern treatise on the topic is *De mineralibus* by the Dominican master Albert Magnus (c. 1193-1280). The work itself cannot be precisely dated, but it was likely started some time after 1248 and completed over a decade later before 1263.[100] Albert was a foremost proponent of Aristotelian thought and learning in the Middle Ages. His scientific and theological writings were composed specifically to reconcile Aristotle's thought with the Platonic thought of the medieval Church.[101] As a part of his many studies in natural history,[102] the treatise offers a systematic scientific analysis of the composition and virtues of stones, including an alphabetic encyclopedia of 99 stones, the substance of which is derived from Marbod, Thomas of Cantimpré, and Arnold of Saxony.[103] The work itself is an original composition since Albert did not have access to an Aristotelian text on stones. As a result, Dorothy Wyckoff suggests that the text reflects more closely the scientific thought of the thirteenth century than his other writings, which for the most part were interpretations of earlier Aristotelian writings.[104] Many copies of his treatise are in existence from the twelfth century onwards.[105]

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[99] *Litho*, 44.

[100] Wyckoff, xxxv. She suggests that Albert's treatise was started some time between 1248 and 1254, and completed over a decade later c. 1261-1263. See Wyckoff, xxxvi-xli. See also the discussion by John Riddle and James Mulholland in "Albert on Stones and Minerals" in *Albertus Magnus and the Sciences: Commemorative Essays*, edited by James Weisheipl (Toronto: Pontifical Institute of Mediaeval Studies, 1980), 228-230.

[101] Sarton II: 935.

[102] Wyckoff, xxix.

[103] Sarton II: 935; see also Wyckoff, xxxiv, xxxviii.

[104] Wyckoff, xxviii-xxix. Felix Klein-Franke, "The Knowledge of Aristotle's Lapidary During the Latin Middle Ages," *Ambix* 17 (1970): 137-142, suggests that a pseudo-Aristotelian lapidary

Also important for the dissemination of lapidary knowledge were the 13th century encyclopedias. Used for the training of students and mendicant preachers, these compendia of theological and scientific knowledge, were also read by Church and state officials.[106] Stones were treated pragmatically as *materia medica*.[107] The religious significance is in most cases not given.

The most important of the medieval encyclopedias is the *De proprietatibus rerum* of the Friar Bartholomew the Englishman.[108] Written between 1230 and 1260,[109] this encyclopedia was "immensely popular for about three centuries."[110] The Latin text went through at least eleven editions by six different printers before 1500.[111] It also circulated

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(probably a seventh century Byzantine text later translated into Syriac, Arabic, Latin and Hebrew) was known by Marbod and Arnold of Saxony in the preparation of their lapidary texts. Robert Halleux has shown this to be incorrect. See Halleux, *Studi Medievali*, 343.

[105]Evans, 83-4, notes that the text was printed under his name in both 1495 and 1518. Thorndike lists seven manuscripts dating to the twelfth century, and nine dating to the thirteenth. See HMES II: 524. For a more comprehensive listing of manuscripts see T/K index, 1725 *Albertus Magnus, Mineralibus*.

[106] See M.C. Seymour, "Some medieval English Readers of *De Proprietatibus Rerum*," *Bodleian Library Record* 9 (1974): 156-165 and "Some medieval French readers of *De Proprietatibus Rerum*," *Scriptorium* 27 (1974): 100-103.

[107] Timothy Daalman points out that "works on materia medica and recipe collections were two of the most popular literary genre in late antiquity and continued to be popular throughout the entire Middle Ages." Idem, "The Medical World of Hildegard of Bingen," *American Benedictine Review* 44:3 (1993), 285.

[108] Bartholomew the Englishman, *De rerum proprietatibus* (Frankfurt, 1601; reprint Frankfurt Minerva, 1964). Seymour comments: "In a word, *De proprietatibus rerum* filled a gap in the later Middle Ages, and its author became widely known as 'the Master of Properties' alongside Peter Comestor 'the Master of Histories' and Peter Lombard 'the Master of Sentences.'" M.C. Seymour et al., *Bartholomaeus Anglicus and his Encyclopedia* (Aldershot: Variorum, 1992), 13.

[109] Seymour suggests between 1230 and 1260 (*Bartholomaeus*, 29). Sarton suggests a date between 1230 and 1240 (II: 586). Thorndike suggests 1230 (HMES II: 404)

[110] Sarton II: 586. For a listing of manuscripts known to date, see Seymour, *Bartholomaeus*, 257-259. The text enjoyed a broad circulation with manuscripts extant in England (nineteen mss.), France (sixty-six mss.), German territories (fourty-eight mss.), Italy (twenty-nine mss.), Portugal and Spain (eleven mss.).

[111] Seymour lists editions printed at "(a) Berthold Ruppel at Basel, after 1472 and before 1480; (b) Philippi and Reinhart at Lyon, 29 July 1480 (who reprinted 10 December 1492 and allowed Pierre Hongre to issue an identical impression 21 November 1482); (c) Johann Koelhoff the Elder at

in numerous vernacular translations,[112] the most famous of which is John Trevisa's fourteenth-century English translation.[113] It was used for the practical training of preaching Friars. Other encyclopedias were also in circulation such as *De naturis rerum* of the Augustinian Alexander Neckham (d. 1217),[114] the Dominican Thomas of Cantimpré's *De natura rerum*,[115] the *Speculum naturale* of Vincent sub-prior of the Dominican monastery of Beauvais,[116] and the brief encyclopedia of Arnold of Saxony, *De*

Cologne in 1481 (who reprinted 19 January 1483); (d) Anton Koberger at Nurnburg, 30 May 1483 (who reprinted 20 June 1492 and whose son Johannes Koberger reprinted in 1519); (e) George Husner at Strassburg, 14 February 1485 (reprinted 11 August 1491 and in 1505); (f) H. Knoblochtzer at Heidelbur in 1488." See *Bartholomaeus*, 262-63. See also T/K index, 1757 *Bartholomaeus Anglicus, Proprietatibus rerum*.

[112] Sarton lists texts and translations of Bartholomew's encyclopedia in Italian (by Vivaldo Belcazer of Mantova in 1309), French (by Jean Corbechon for Charles V in 1372; many later printings and editions from Lyon and Paris) Provençal (before 1391), Spanish (by Vincente of Burgos, fifteenth century), and Dutch (Haarlem 1485). See Sarton II:587.

[113] Published as Bartholomew the Englishman, *On the Properties of Things: John Trevisa's translation of Bartholomæus Anglicus De Proprietatibus Rerum. A Critical Text* (Oxford: Clarendon Press, 1975). Trevisa's translation is known in eight manuscripts. See Ibid., xi.

[114] Alexander's was the first of the late medieval encyclopedias. "Noticeably briefer and more obviously didactic in its moral exhortations, it was an academically popular work, especially in England...however, [it] was a beginning, and its brevity and credulity necessarily gave way to later works." Seymour, *Bartholomaeus*, 13. Alexander used Marbod as a primary source in the composition of his lapidary. He also lists a moral quality associated with the majority of stones: chelidonius symbolizes constancy, magnet—fortitude, alectorias—prudence, etc. See Evans, 62-63.

[115] See Thomas of Cantimpré, *Liber de natura rerum*, Editio princeps secundum codices manuscriptor, seven volumes, edited by H. Boese, (Berlin, 1973) for the critical edition of the Latin text. It was compiled between 1228 and 1240. Though Thomas was contemporary with Bartholomew, Sarton suggest that the two encyclopedias were independently composed (II: 592-3). Though it did not receive the same degree of circulation as Bartholomew's text, it was by no means unknown. L.G. Ballester, *Codex Gramatensis C-67* (Baranain, 1975) lists 147 manuscripts including extracts and fragments. See also HMES II: 372-96 and Thorndike, "More manuscripts of ... *De natura rerum*," *Isis* 54 (1963): 269-77. Compare also the list of manuscripts in T/K index, 1923 *Thomas of Cantimpré, Natura (*or *Proprietatibus) rerum*. Thomas's work was translated into both High and Low German in 1350 by Konrad von Megenburg, *Das Buch der Natur*, edited by F. Pfeiffer (Stuttgart, 1861) and c. 1266 by Jacob van Maerlandt, *Der Naturen Bloemen*, edited by E. Verwijs (Gronigen, 1878).

[116] See Vincent of Beauvais, *Speculum Naturale*, volume one (Douai, 1524; reprint Graz, 1964) for the standard Latin text. This first book of three which constituted his encyclopedia was completed c. 1250. The work itself is massive and its sheer size limits it popular practicality. See

finibus rerum naturalium.[117] Used as training manuals for mendicant and stationed preachers, they are important as examples of what mendicant preachers were taught and the practical knowledge that was disseminated throughout European society through them.

Vernacular texts of popular scientific explanations were also in common circulation. The *Book of Sydrac* that dates to the thirteenth and fourteenth centuries is known in more than seventy manuscripts.[118] No Latin text of the work is known which suggests that it was likely a vernacular original.[119] The work is a sort of almanac of questions and answers on topics of popular interest. It includes a number of questions relating to stones and their virtues.[120] As suggested by the large number of manuscripts, it "must have been one of the most widely read vernacular books of knowledge among the general public from the thirteenth century on."[121] The *Book of Sydrac* reflects the specifically Christian and dogmatic character of popular medieval science constantly

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Seymour, *Bartholomaeus*, 14-15. See also Sarton II: 929-931. For a listing of known manuscripts see T/K index, 1929 *Vincent of Beauvais, Speculum naturale*.

[117] Composed between 1220 and 1230, he drew on Greek and Arabic sources and thus his lapidary showed an affinity to that of Marbod's. Sarton suggests that Bartholomew used Arnold's text in the writing of his encyclopedia (II: 592). Thorndike differs and suggests that Arnold made use of Bartholomew's text (HMES II: 430-31). In either case, the two are contemporary and closely related. Both texts circulated in German speaking lands. For manuscripts see T/K index, 1749 *Arnoldus Saxo*.

[118] *The Book of Sydrac* is also known under the names of *Roman, Livre de Sydrac, La Fontaine de toutes sciences, Le Tresor des sciences*, and *Le Roman du philosophe Sydrac*. Versions are known in French, Provençal, Flemish, Italian, Middle Dutch and English. See William M. Holler, "The Ordinary Man's Concept of Nature as Reflected in the Thirteenth-Century French *Book of Sydrac*," *French Review* 47 (1975): 526. See also idem, *Manuscripta*, 181, 184.

[119] Ibid.

[120] Ibid., 537. Sydrac discusses 24 stones in his book of knowledge. Holler notes that he is Christian in his choice of stones although he "does not give mystical and symbolic interpretations of the stones. See Holler, *Manuscripta*, 185.

[121] Holler, *Manuscripta*, 184.

reminding its readers of the necessity of faith in order to properly understand creation.[122] William Holler suggests that the *Book of Sydrac* may be a source for the later popular *Lapidaire Chrétien*.[123] Unfortunately, the text has not yet been published.[124]

Also of interest is the medical lapidary of the Benedictine abbess Hildegard of Bingen.[125] The work appears in book IV of her *Physica* that is described as an "encyclopaedia of natural history and cloister medicine."[126] Written in Germany some time in the period of 1151-1158 AD, the lapidary describes 26 stones focusing on their medical uses. Like Albert the Great, Hildegard draws on Marbod in the composition of her lapidary. Her lapidary stands along side Marbod's as an example of a practical medical text.

Christian Symbolic Lapidaries

The late Middle Ages also had its course of "persistently popular" Christian symbolic lapidaries.[127] Of the 616 lapidary manuscripts reviewed by Riddle, he notes that 94 fell into this category.[128] "As early as the ninth century a Latin glossary [Sinner, *Catal. des MSS. de Berne*, i, p.361 et seq.] describes the twelve stones of the High Priest's breastplate as those which God loves best, which he has endowed with the greatest virtues. To the writers of the early Middle Ages these stones were canonical."[129] Latin

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[122] See ibid., 185.
[123] See Holler, *Manuscripta*.
[124] Ibid., 181.
[125] Sarton describes her as having an "encyclopaedic mind of the mystical type" and calls her "one of the leading scientists and most influential personalities among the Christians of her time." Sarton II: 386-387.
[126] Sarton II: 387. The Latin text of Hildegard's *De lapidibus* is found in PL 197:1248-1265.
[127] *Marbode*, xi. Also *Litho*, 40. Cf. Evans, 54.
[128] *Litho*, 40.
[129] Evans, 73.

symbolic texts are ascribed to Marbod.[130] The earliest vernacular lapidary known to have circulated in Europe is an Old English listing of the biblical stones dating to the eleventh century.[131] Treatises on these 'canonical' stones came to circulate as an independent literary unit. After Christian and popular lapidary traditions later merged, the canonical stones continued to circulate as a single unit and are commonly found together at the head of the stone-list.[132]

The merging of Christian and pagan elements was a gradual process. The two initially circulated as independent genre. Latin texts such as Marbod's lesser lapidaries as well as the vernacular Old English Lapidary[133] circulated as independent moral treatises. Over time, however, Christian and popular lapidary traditions started appearing along side one another within the same texts. At first, as in ms. Brussels 2834, medicinal comments were given in a separate appendix to the moral treatise.[134] Very popular was the 13th century French *Lapidaire Chrétien en vers,*[135] which Sarton claims was the first to combine both Christian and popular traditions.[136] But in later lapidaries such as Paris, Bibl.Nat. de Frace, fr. 14964, the description of traditional virtues and the religious

[130] See texts and translations in *Marbode*, 119-129.
[131] London, B.L., Cotton Tiberius A. III in EML, 13-15.
[132] Cf. for example, Volmar's lapidary in Lambel.
[133] London, B.L., Cotton Tiberius A III in EML.
[134] See Evans, 74.
[135] See Pannier, 228-285. Cf. also Françoise Fery-Hue, "Une version ramaniée du *Lapidaire Chrétien en vers*: Le Manuscrit Paris, Bibl. Nat., Nouv. Acq. Fr. 11678," *Romania* 107 (1986): 92-103.
[136] Sarton I: 765. The author of the Lapidaire Chrétien drew his information on the 'magical' virtues of stones largely from Marbod and the Christian symbolic meanings principally from Bede, Albert the Great, Rabanus Maurus, the commentaries of Strabo, and possibly also the *Book of Sydrac*. See Holler, *Manuscripta*, 183.

senefiance follow one another within the same text.[137] It begins as a French adaptation of Marbod's lapidary giving the popular virtues as listed in that text, but then is followed by a section dealing with "La signification des douze pierres." This is followed by a discussion of the four stones in the foundation of Jerusalem which are not included in Aaron's breastplate.[138] "The account of the *senefiance* of the *jagonse balais* follows directly upon the description of its appearance and virtues; the popular and symbolic elements are united. The *senefiance* of the other three stones is omitted."[139] The King Philip[140] lapidaries from the twelfth and thirteenth centuries also illustrate the synthesis of popular and Christian elements within the lapidary texts.[141] Both Christian and 'pagan' interpretations of the stones stand side-by-side with no apparent concern for discontinuity or contradiction of material. The King Philip lapidaries[142] begin with a listing of the canonical stones offering a description of both their medicinal and religious virtues after which follows a listing of other stones described for medicinal use only. These texts circulated in both French and Middle English translations.

Conclusion

The number of extant lapidary texts from the later Middle Ages illustrates the broad cultural esteem in which stones and gems were held by later medieval society.

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[137] Which Evans dates to 1265. See Evans, 74. Evans lists numerous other manuscripts that follow this same literary order in the presentation of their material. Ibid., note 4.
[138] *jagonse balais*, *grysopas*, *calcydoine*, and *sardoine*.
[139] Evans, 74-77.
[140] Probably Philippe de Valois. See Evans, 77.
[141] Evans, 78. The Lapidaire Chrétien is considered one of the sources for the Philipine lapidaries. See Holler, *Manuscripta*, 183.
[142] Originally Anglo-Norman lapidaries composed in French. Middle English versions in various dialects are also extant such as the London Lapidary of king Philip [Bodl., Douce 291] in EML, 16-37, and the North Midland lapidary of king Philip [Bodl., Add. A 106] in EML, 38-57.

Given the number of manuscripts known to have circulated, lapidary texts can be viewed as a type of medieval "best-seller."[143]

Within the development of the medieval lapidary, there is a movement towards the consolidation of the traditions derived from the ancient sources. Scientific and magical traditions merged in Marbod that later merged with the Christian symbolic tradition in the 13th century. These were joined again by the astrological traditions that entered Europe through Arabic lands.[144] While Evans's and Sarton's divisions of the corpus of lapidary literature is useful, it must be recognized that the general content of the three circulated together in a single corpus popular vernacular literature. Given the emphasis in medieval thought of *reducere ad unum*, it is perhaps better not to view these different streams as segregated and independent circles of thought, but as merely different facets of a single tradition as it was received in the Middle Ages.[145] As such, the appearance of elements from one stream in another dare not be thought of as a "contamination,"[146] but should rather be viewed as evidence of the unity of a broader cultural understanding. Riddle thus rightly notes that this is a "casual classification" in that the divisions are not "mutually

[143] This corresponds also to the 12th century renaissance with its renewed interest in nature. It is a broad cultural development that is reflected both in literature, architecture, and iconography. As John Riddle notes, the large number of manuscripts make it a medieval "best-seller." See *Marbode*, x.

[144] "To complete this brief account, I may add that the Greek astrological traditions reappeared also in Arabic writings, such as the Pseudo-Aristotelian lapidary and 'Utarid's lapidary (q.v., first half of the ninth century). Later this Arabic development rejoined the Latin development through the Alphonsine translations (q.v., second half of the thirteenth century)." Sarton I: 765.

[145] This is not to say that Evans's division is not useful for an analysis of the manuscript sources and their transmission into the Middle Ages, but rather that they all form a part of the literary corpus which informed the medieval understanding of gems and stones. Thus Evans's categories are indeed useful for tracing manuscripts, but its application becomes more limited when applied to an investigation of the role of stone-lore within medieval culture as a whole.

[146] Evans, 80.

exclusive," but "in fact often overlap."[147] Such divisions serve the modern researcher more than they reflect the medieval context which is far more fluid.

While authors and influences within the lapidary texts may be identified, "hardly any two are alike."[148] As Riddle notes, "Lapidaries were an ever-changing, popular mode of medieval medical and scientific expression."[149] He further suggests that this dynamic character of the lapidary literature as a testimony to the vitality of a popular and general cultural fascination with stones within the society of medieval Europe.[150] Far from representing a 'little tradition,' the geographical and linguistic distribution of lapidary texts shows that the fascination with stones and their virtues was indeed 'popular' in that it touched every corner and strata of medieval civilization. From the Church to the abbey, the university to the village, there is a lapidary text to suit the context.

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[147] *Marbode*, xi. Cf. "Some late medieval lapidarists prefer to view knowledge of stones as a composite in attempting to integrate knowledge." *Litho*, 40.
[148] Ibid., 50.
[149] Ibid., 40.
[150] Ibid., 50.

CHAPTER THREE

DESCRIPTION OF A MEDIEVAL LAPIDARY

John Riddle has noted a fluidity of content between lapidary manuscripts. This raises the problem of which texts should be chosen as representative exemplars of the literary corpus. While as Riddle notes, that there is variation of content between lapidary texts, this point is more significant for the scholar tracing sources and textual traditions of lapidary knowledge.[1] The differences, however, are all within a continuum of a single theme, namely the religious and medical virtues of stones and their application. It is possible thus to provide a description of the medieval lapidary based on representative texts.

As Evans notes, Marbod's lapidary was the most influential of the later medieval lapidary texts. While many of the vernacular recensions varied considerably in content from that of Marbod's Latin text, his still remains the prototype both in literary structure and in spirit of presentation. Thus as Evans notes, his lapidary can be considered the "lapidary *par excellence* of the Middle Ages."[2] As noted, however, Marbod's text was entirely 'pagan' in its content, whereas the later texts incorporated religious interpretations

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[1] See *Marbode*, Robert Halleux, "Damigéron, Evaux et Marbode: l'héritage alexandrin dans les lapidaires médiévaux," *Studi Medievali* 15 (1974): 327-347, Peter Kitson, "Lapidary traditions in Anglo-Saxon England: part I, the background; the Old English Lapidary," *Anglo-Saxon England* 7 (1978): 9-60, and idem, "Lapidary traditions in Anglo-Saxon England: part II, Bede's *Explanatio Apocalypsis* and related works," *Anglo-Saxon England* 12 (1983): 73-123, Wyckoff, William Holler, "The Lapidary of Sydrac: New Evidence on the Origin of the *Lapidaire Chrétien*," *Manuscripta* 30 (1986): 181-190, and Felix Klein-Franke, "The Knowledge of Aristotle's Lapidary during the Latin Middle Ages," *Ambix* 17 (1970): 137-142 for examples.

of the biblical stones. In order to accurately caricature the vernacular lapidary knowledge, use will be made of the king Philip lapidary,[3] which circulated in numerous French and English paraphrases and translations,[4] as an example of the most 'complete' integrated Christian symbolic text extant.

Introduction and Prologue

The lapidary classically begins with an introductory section intended to praise the virtues which God has hidden within stones as well as commend the reader to serious investigation. In *de lapidibus* this consists of two letters and a verse prologue. Later adaptations of Marbod's text open with a smaller introduction written as a practical introduction for the medical practitioner. These are usually an adaptation of Marbod's Latin prologue. The king Philip lapidary begins with a general introduction which sets the virtues of stones within the symbolic context of medieval cosmology. These opening comments are important as they illustrate the spirit in which the texts and their teachings were received within the culture.

Marbod's lapidary begins with two letters from Evaux, the king of Arabia to Tiberius Nero.[5] As Riddle notes, "such a king probably never existed. King Aretas IV ruled the Nabatean Arabs from 9 B.C. to 39 A.D. but there is no evidence to assume these two names to be the same man."[6] They are rather taken from the first-century lapidary text of Damigeron.[7] The first letter is written in response to a request from Emperor

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[2] Evans, 35.
[3] The *London Lapidary* of king Philip [Bodl., Douce 291] presented in EML, 16-37.
[4] See Evans, 77 especially note 1.
[5] Riddle (*Marbode*, 4) notes that the Latin of the Letters is corrupt.
[6] *Marbode*, 4.
[7] See Halleux, *Studi Medievali*.

Tiberius asking for information on the secrets of stones and "what an expert thinks they can do for mankind."[8] Evaux obligingly passes on this 'secret knowledge' of the Egyptians regarding stones and admonishes Tiberius to guard this information and never reveal it.[9] The lore of stones is presented as a forbidden fruit only cautiously revealed. As Riddle notes, "the motif of the mystical Egyptian secrets is suggestive of a connection with the Hermetic literature."[10] This claim to secret knowledge within Marbod's lapidary no doubt contributed to its immense popularity. In the second letter, Evaux acknowledges the receipt of Tiberius's gift of thanks through the centurion Lucinius Fronto.[11] In gratitude, Evaux promises to send further information regarding the origin and use of the various stones.[12]

The letters are followed by a verse prologue, which introduces the stone-list. In it, Marbod recounts the correspondence between Evaux and Tiberius and in good rhetorical fashion "confesses misgivings lest his publication of these mysteries should lessen their power by being made known too commonly."[13] Then he comments that only a few of his friends should read this text and expresses the wonder of what benefit there might be for humanity if the powers of these stones could be used in the art of medicine—for even

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[8] "Desideranti tibi scribi a me misteria omnium lapidum quanta [quae?] generi humano ea sapienti prodesse videantur." ll. 1-4. All references will be from the version printed in *Marbode*, 28. The line numbers in *Marbode* correspond to that given in PL 171: 1737-1780.

[9] "Tu itaque custodi summa diligentia misterium summi altissimique Dei. Hoc enim misterium ceteris Egiptiis litteratis. Neque allophilis tradideris aliisue [aliive] cuiquam ne ad sterilitatem huius scientiae deveniat Egiptus." ll. 5-10.

[10] *Marbode*, 5.

[11] "Magnifica tua dona accepi per centurionem Lucinium Frontonem nomine, quem dignatus es mittere ad me." ll. 1-4.

[12] "Et ego tibi invicem misi [mitto] quodcunque carius per terram in orientis partibus de omnibus lapidibus remediorum nomen existit." ll. 4-7.

[13] *Marbode*, 5.

death could thus be prevented.[14] The power of herbs is great, he confesses, but greater yet are those found in stones.[15]

The introduction to the king Philip lapidary is comparable. It states that the lapidary was composed for king Philip of France.[16] The original was taken from a Latin source and then translated into French.[17] The author states that he "sought many Abbeyes & clerkis, & spake to many perireres & to many wyse dyuinours."[18] He teaches that God Himself has put virtues into the stones.[19] The author claims that this is attested to by Solomon, Moses and St. John the Evangelist. He suggests that the power and virtue of stones would be greater if humanity ardently believed it and did not doubt it.[20] Indeed, only sinners doubt that God has given the stones such marvelous virtues.[21] The writer then describes how God Himself commanded that the stones be placed in Aaron's breastplate and then proceeds to list them in order, doing the same with those seen by

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[14] "Quarum causa latens effectus dat manifestos, Egregium quoddam volumus rarumque videri. Scilicet hinc solers medicorum cura juvatur, Auxilio lapidum morbos expellere docta." ll. 15-18. Considering that Europe was ravished by several plagues in the Middle Ages, such a claim of medicinal worth grounded in the secret mysteries of the Egyptians undoubtedly contributed to the popularity of lapidary lore.

[15] "Nec dubium cuiquam debet fallumque videri, Quin sua sit gemmis divinitas insita virtus. Ingens est herbis virtus data, maxima gemmis." ll. 21-23.

[16] "For the loue of Philippe Kyng of Fraunce, þat God hath in his kepying, was made this boke þat is clepid the boke of stones." *London Lapidary* [Bodl., Douce 291], EML, 17.

[17] The *London Lapidary* [Bodl., Douce 291] is an early 15th century translation of a late 14th century French text which was originally translated from the Latin (EML, 16). The *Midland Lapidary* [Bodl., Add. A 106] is an independent translation of the same, dating also to the 15th century (EML, 38).

[18] EML, 17.

[19] "Þe bible seith þat god hymself yaue *ver*tu in hem." EML, 17.

[20] "& Eracles seith also that mochel more thei were worth in vertues & miracles yef þe mysbeleue of men ne were, and in many places shulde haue myghte where mirre ne herbe ne rotis may not auaile ne helpe." EML, 17.

[21] "And wyse men shulde not doute þat god ne hath put vertu in stones & herbes & wordes; & who so beleueth hit not but ayeinseith hit, he is but a synner." EML, 17.

John the Evangelist in the foundation of the heavenly Jerusalem.[22] While of great importance, the writer states, that the biblical stones are not the only ones to which God has given virtue. He then announces his intention to present the virtuous stones, beginning first with the biblical stones, then continuing with a description of the others.[23]

The List of Stones

Across the corpus of lapidary texts, the precise content of the stone list varies from lapidary to lapidary. Some are given in verse, others in prose.[24] Individual texts also vary in the number of stones listed. Marbod's Latin text lists 60 stones. The number of stones in later adaptations varies from region to region.[25] Lapidaries also vary in the order in which stones are presented. Marbod's lapidary, for example, does not appear to follow any particular order.[26] Early texts follow a similar apparently random listing of stones. Later lapidaries list the stones in alphabetical order—presumably for ease of reference. Within the later hybrid lapidaries, the canonical stones appear at the beginning of the stone-list after which follows an alphabetical listing of other medical stones. The order of the canonical stones is fixed according to their order of appearance in the biblical text.

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[22] EML, 17-18.

[23] "God yave grete vertues & many strencthes to thise stones & to many othre, but þe vertu of thise þat we haue named to yow we shulle reherce, & deuise þe vertu of othre stones þat we have named to yow. First of tho þat God hath named be his mouthe, & after of thoo þat seynt Iohn hath named, and the significacions, what thei signifieden atte aarons necke, & what they signifieden as to þe grete kyngdome." EML, 18.

[24] Joan Evans notes that the French lapidaries tend to preserve a verse structure whereas the English texts are invariably written in prose. See Evans, 54, 69. The German lapidaries are similarly written in verse. See Lambel.

[25] Variation in the number of stones is most often found in the vernacular texts. This variation might reflect the relative distribution of pharmaceutical stones across Europe. A correlative study of the number of stones listed and the geographical provenance and distribution of lapidary texts would need to be conducted in order to determine if such might be the case. If a correlation could

The description of the individual stones follows a traditional formula.[27] Whereas "today a gem substance is classified by chemical analysis, by hardness, by specific gravity, by lustre, by color and by the refraction of light passing through it,"[28] the medieval scientist looked to a stone's character in order to identify it, namely its color, physical properties and magico-medicinal virtues.[29] As Riddle points out, "we ask different question than did medieval people; consequently we get different answers when studying the same material, such as stones. Marbode's question was a simple one: what is the stone's personality?"[30] What did it look like? Where did it come from? and how does it act? or variously, what powers does it posses? The *virtus* of a stone was equivalent to its personality. By identifying its personality, one stone could be differentiated from another.[31] Functionally then, the lapidary entry can be divided into three parts in which the name of the stone is given, identifying characteristics are listed, followed by a description of its particular virtues and how these are best used.

The entry begins by identifying the name of the stone. This is usually presented in its traditional Latin form which may or may not correspond to modern nomenclature.[32]

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be found, the stone-lists could provide information on the distribution of stones and gems across Western Europe. I am unaware, however, of any study which attempts to do this.

[26] See *Marbode*, 3.

[27] This is noted by Ian Bishop who comments that "medieval verse lapidaries tend to follow a traditional pattern and often employ certain fixed formulas." See "Lapidary Formulas a Topics of Invention—From Thomas of Hales to Henryson," *Review of English Studies* n.s. 38 (1986): 469.

[28] Urban T. Holmes, "Mediaeval Gem Stones," *Speculum* 9 (1934): 196.

[29] *Marbode*, x.

[30] Ibid., 6.

[31] Bert Hansen summarizes this medieval approach by writing "to know *what* something is, what virtue of power it has, is to explain it." Bert Hansen, "The Complementarity of Science and Magic before the Scientific Revolution," *American Scientist* 74 (1986), 134.

[32] For example, the ancient *sapphirus* was likely lapis lazuli, and *smaragdus* could have been any number of green stones, an not necessarily our modern 'emerald.' See *Marbode*, 41, 44. The stones to which other medieval names refer have still not been identified. See for example, Urban T. Holmes, "Old-French *Esterminals*, a Gem Stone," *Speculum* 13 (1938): 78-79. Some scholars

Because of this, the names for the various stones will be used as they appear in the original texts throughout this study. Some later vernacular texts list both Latin and vernacular names alongside the Latin equivalents.[33] In some cases the name reflects the character of the stone's virtue[34] or indicates the place where the stone is found.[35]

The entry continues with a description of the stone's appearance. This is usually practical in nature focusing on physical characteristics, occasionally including a test by

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have expended great attention in unraveling medieval nomenclature and attempting to identify which stones were actually in the possession of the medieval investigators and writers. A recent article which tries to identify the modern equivalents for the canonical stones is by E.L. Gilmore, "Gemstones of the First Biblical Breastplate?" *Lapidary Journal* 22 (1968): 1130-1134. See also Dietlinde Goltz, *Studien zur Geschichte der Mineralnamen in Pharmazie, Chemie und Medizin von den Anfängen bis Paracelsus*, Sudhoffs Archiv 14 (Wiesbaden: Franz Steiner Verlag, 1972) for an extensive discussion of the topic of nomenclature. Other investigators unfairly impose modern nomenclature onto medieval mineralogy. Holmes ("Medieval Gem Stones," 196, cf. his comments "the reader will surely admit our contention that of the fifty-nine substances in Marbodus many of them were rare or unknown in the Western Europe during the mediaeval period." p. 204) for instance concludes on the basis of nomenclature alone that Marbod likely had less than half the stones about which he writes at his disposal. While he presents an interesting discussion, his conclusion merely indicates that stones were indeed identified differently. Eichholz notes that "the difficulty of identifying the stones mentioned by classical authors is will known. In Pliny, for example, chrysoprasus is not chrysoprase, nor is topazus topaz or sapphirus sapphire. Sasanites (v.l. basaltes) is probably never basalt. Smaragdus includes many stones that are not emeralds, and carbunculus some that may not be carbuncles. Iaspis embrases many stones that are not jaspers, while of genuine jaspers it includes at the most the green variety." Pliny, *Natural History*, ix. Some of the medieval stones such as *alectorius* (i.e.: the cock-stone *De lapidibus* §3), *coralus* (i.e.: coral *De lapidibus* §20), toad stone and *aetites* (i.e.: the eagle stone *De lapidibus* §25) are not even 'minerals' in the modern sense. However, as Riddle notes, in the Middle Ages, there were stones used in amulets that were identified as such. (Cf. *Marbode*, 23, cf. also 39.)

[33] As in the London Lapidary [Bodl., Douce 291] where the entry begins with the Latin name which may be followed by a Middle English equivalent. Thus for example, in addition to the Latin name *Sardes*, the Middle English names *grenas* and *elamaundines* are offered (see §1 *Sardes* EML, 18). The Latin name likely contributed to a sacred character associated with the stones. The stones shared the same sacred tongue as the ritual of the Church. The foreign names combined with the introduction from Marbod's lapidary to support the belief that sacred stones came from the East.

[34] *Ametist* according to the etymology of its name was believed to combat drunkenness. Its name is derived from the Greek meaning 'not drunk.' See *De lapid.* §16.

[35] *Topaz* comes from the Mediterranean island bearing the same name (*De lapid.* §13 ll. 205-206). The name of *medo* is found in the region of the Medes (§36).

which to ensure the stone's identity.[36] The entry notes the color of the stone[37] and any known variations.[38] The traditional theory of the stone's generation may also be offered.[39] Specific information about where particular stones may be found is often included.[40] Thus for example, the best *sapphire* is said to come from Media's mines[41] whereas the highest quality *smaragdus* is found at Scythia.[42] The sources for stones are not always geographical, however. *Alectorius*, for instance, is said to be found in the gizzard of a cock[43] and *echite* is said to come from the nests of eagles.[44] Aside from providing

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[36] As in the case of *gerachite*. Marbod suggests that to test the power of the stone, one should smear his naked body with honey mixed in milk and stand wearing only the jewel. If the stone is true, it will keep the swarms of bees at bay until the stone is removed at which time the person will be stung ("Cujus sic virtus perhibetur posse probari. Muscis expositum corpus nudato gerentis. Latis commixto millisque liquore perunctum, Intactum cupido miraberis agmine linqui. Si lapidem tuleris, facto grege, spicula figent, Imbutamque cutem sugent per ulnera mille." *De lapid.* §30 ll. 448-452).

[37] For example *sard* is red (*De lapidibus* §11. 180b.), *smaragdus* is green (*De lapid.* §7 ll. 134).

[38] Marbod notes that *topaz* can be either gold or yellow (*De lapid.* §13 ll. 203-204), the stone *jaspis* occurs in seventeen different colors ("Jaspidis esse decem species septemque feruntur." *De lapid.* §4 l. 92; the *London Lapidary* [Bodl., Douce 291] §6 lists nine varieties, see EML, 23), although the translucent green variety is considered the most powerful ("Optimus est viridi transculentique colore." l. 95), *hyacinthus* can show a red, yellow or blue play of color, each of which possesses a different virtue (*De lapid.* §14 ll. 214-215). *Medo* is known in both white and black varieties. The white is considered good while the black has injurious properties (§37 ll. 522-523).

[39] *Cristallo* is frozen water (*De lapid.* §41 ll. 550-552); *coral* was believed to be an underwater plant which turned to stone when brought above water (*De lapid.* §20 ll. 326-328); *ceraunus* is formed in by a lightning strike ("Ventorum rabie cum turbidus aestuat aer, Com tonat horrendum, cum fulgurat igneus aether, Nubibus illises, coelo cadit iste lapillus, Cumus apud Grecos extat de fulmine nomen." §27 ll. 401-404).

[40] For example, *emathite* is found in Africa, Arabia and Libya (*De lapid.* §32 ll. 486).

[41] *De lapid.* §5 l. 109.

[42] *De lapid.* §7 ll. 135-140.

[43] *De lapid.* §3 ll. 74-76.

[44] "Puiceum lapid hic memoratur habere colorem, Oceanique latens in littoribus reperitur, Autt aquilae nidis, aut Persarum regione, Quem gemini Pollux Castorique tulisse feruntur." *De lapid.* §25 ll. 379-382. See also *chelonite* or the 'tortoise-stone' which is carried by Indian tortoises (§39 l. 533-534).

practical information on where the stones may be found, this information also establishes the particular *virtus* or effectual character of the stone.[45]

The entry continues with a description of the stone's particular virtues. A great majority of the virtues are concerned with matters of health and well-being. Medical themes include pregnancy and childbirth,[46] the control of bleeding including menstruation,[47] treatment of eye problems,[48] belching and shortness of breath,[49] treatment of hemorrhoids,[50] the stimulation of virility,[51] and treatment of other medical conditions.[52]

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[45] A good example is *alectorius*—the cock-stone—which is found in the gizzard of a cock. No bigger than a bean, the stone is said to quench thirst, make its bearer invincible, grants oratorical skill, imparts perseverance, makes one generally more pleasant and infuses its bearer with greater virility. See *De lapid.* §3 ll. 74-91. All of these qualities are observed in the rooster as lord of his coop. The medieval observer ascribed these qualities to the stone which the rooster swallowed to aid in digestion. By placing the stone upon the tongue, it was believed that a human could similarly benefit from the stone.

[46] Popular was *echite* or the "eagle-stone" ("Creditur ergo potens, praegnantibus auxiliari, Ne vel abortivum faciant, partuve laborent; Appensus laevo solito de more lacerto." *De lapid.* §25 ll. 365-367) of which several examples are still extant. See for example T.G.H. Drake, "The Eagle Stone, An Antique Obstetrical Amulet," *Bulletin of the History of Medicine* 8 (1940): 128-132; *jaspide* was believed to protect pregnant women and assist in childbirth (§4 ll. 98-99). See also *peanita* (§34 ll. 491-495). Ground *cristallus* mixed with honey and drunk in water is said to replenish a nursing mother's milk (§41 559-561). Similarly, *galactida* ground and drunk with mead replenishes a mother's milk; worn pendant around the neck suspended by a string of sheep's wool during an early morning bath taken before breakfast, the stone was believed to make the mother's milk more nutritious; it also made childbirth easier if worn around the thigh; mixed with salt and scattered in the sheep-fold, it chased away the itch and replenished the sheep's milk also (§42 ll. 562-572). *Orite* is ascribed the ability to prevent pregnancy, or if the woman is already pregnant, to induce miscarriage (§43 ll. 589-590).

[47] Ascribed to *carnelion* (*De lapid.* §22). The power to stop bleeding is also ascribed to eliotropia also known as the 'blood-stone' (§29 l. 432).

[48] *Berril* helps feeble eyes (*De lapid.* §12 l. 201); also ascribed to *smaragdus* (§7 l. 156) and *medo* (§36 l.508-509).

[49] Marbod recommends *Berril* for both of these. Riddle suggests that shortness of breath is possibly a reference to asthma (see *Marbode*, 50). *Berril* is also believed to cure all illnesses of the liver. See *De lapid.* §12 ll. 201-204.

[50] Marbod recommends *topaz*. See *De lapid.* §13 l. 213.

[51] See *De lapid.* §3 ll. 89-90

[52] *Berril* is said to help feeble eyes, cure shortness of breath (possibly asthma), and treat all illnesses of the liver (See *De lapid.* §12 ll. 201-204); Served with honey, *magnete* was believed effectual in the treatment of dropsy as well as soothing the pain caused by burns (§19 ll. 310-311); *jaspide* is said to chase away fever and dropsy (§4 l. 97); *sapphire* cools the body enflamed by

The natural virtues of the stones were not, however, limited to medical treatment. Stones could also be used in preventative measures as protective amulets. *Sapphire* held the power to preserve health intact;[53] *achate* was believed to protect both against poison and vipers;[54] *echite* and *melochita* were given to children to defend them against danger;[55] *coral* strewn in the fields protected against demons;[56] *gagate* was used to ward off the influence of witchcraft;[57] while *ceraunus* guarded against storms and lightning and granted pleasant and restful sleep.[58] *Orite* was believed to both cure as well as protect its wearer from animal bites.[59] Both *amatist* and *dionisia* warded off drunkenness.[60]

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illness, reduces perspiration, removes dirt from the eyes, cures headaches, and treats defects (vitiis) of the tongue (§5 l. 122-128); *smaragdus* is said to purge fevers and cure 'falling sickness' (possibly epilepsy, see §7 154-155); *chelidonio* cures insanity and chronic weakness (§16 l. 256); *gagates* was used to treat upset stomach and chest pains (§18 l. 279); *ligurio* was used to treat stomach ache, jaundice and diarrhea (§24 ll. 349-359); *medo* could be used to treat old gout, restore weak muscles and cure nephrites of the kidney (§36 ll. 510-515); *gegolito* dissolved in water was used to treat kidney stones and other urinary problems (§55).

[53] *De lapid.* §5 l. 113.

[54] "Iste nempe virus fugat, et quod vipera fundit." *De lapid.* §2 l. 63. *Echite* could also be used to test food for poison (§25 ll. 373-378). See also *eliotropia* which was believed to be able to expel poisons (§29 l. 432).

[55] *Echite* protected children from falling ("Incolumes pueros dat vivere, sive puellas, Atque caducorum fertur cohibere ruinas." *De lapid.* §25 ll. 371-372) whereas *melochita* protected them from danger and evil (§54 ll. 669-674).

[56] *Coral* was believed to protect against both demonic shadows as well as Thessalian monsters (*De lapid.* §20 ll. 326-328). See also *adamante* §1 ll. 43-49. The fumes of burning *gagate* was said to chase away demons (§18 l. 278).

[57] "Vincit prestigias, et carmina dira resolvit" *De lapid.* §18 l. 280.

[58] "Qui caste gerit hunc, a fulmine non ferietur, Nec domus, aut villae, quibus affuerit lapis ille. Sed neque navigio per flumen vel mare cectus, Turbine mergetur, vel fulmine percutietur. Ad causas etiam vincendque praelia prodest, Et dulces somnos et somnia laeta ministrat." *De lapid.* §28 ll. 409-414. *Coral* spread in the field was believed to protect against hail storms and granted a bounteous harvest (§20). *Smaragdus* was also thought to prevent storms (§8 l. 157). *Epistite* protected fields from locusts, hail and hurricane (§31 l. 458-460). When held against the sun, it was also believed to calm sedition and grant its bearer general protection from harm (§31 ll. 461-464).

[59] *De lapid.* §43 579-583.

[60] *De lapid.* §16 *De amestisto*; §58 *De dionisia*.

The powers of stones were not limited to medical concerns but extended also to fostering personal development. *Achate* was said to make one eloquent,[61] granted persuasive speech[62] as well as riches;[63] others granted invincibility in debate and even in battle.[64] *Sapphire* reconciles one to God and inclines the person to prayer.[65] Some even bestowed upon their bearers the ability to prophecy[66] and even read people's minds.[67] If *eliotropia* is joined with the herb of the same name and the proper incantations are spoken, the bearer could be made invisible.[68] *Diadocos* could be used to summon demons.[69] *Liparea* attracted prey to the hunter so that he would have no need of dogs.[70]

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[61] *Achate* is said to grant eloquence and a fare complexion §2 ll. 70-73. If worn respectfully by someone morally pure, *calcofanus* replaces the person's bad voice with a sweet tone and guards its bearer from hoarseness (§53 ll. 664-668).

[62] *Alectorius* bestows eloquence and persuasiveness to orators "Hic oratorem verbis facit esse dissertum, Constantem reddens, cunctisque per omnia gratum." (*De lapid.* §3 ll. 87-88); ascribed also to *magnete* (§19 ll. 307-308) presumably derived the ability of the stone to persuade and move metals by its magnetic force

[63] Ascribed to *berril* (*De lapid.* §12 l. 119); eloquence leading to fame and riches is also ascribed to *smaragdus* (§8 ll. 152-153); *echite* bestows it bearer with sobriety, riches and the loving admiration of others (§20 ll.368-369).

[64] Ascribed to *alectorius* (§3 81-88). *Gagatromeo* is also said to grant victory to dukes when carried in battle (§27 ll. 395-400). If viewed early in the morning at the rising of the sun, *pantherus* is said to bestow victory in all the endeavors of the day (§51 ll. 648-658).

[65] *De lapid.* §5 ll. 118-119.

[66] Ascribed to *smaragdus* ("Commodus iste lapis scrutantibus abdita fertur, Cum praescire volunt ac divinare futura." *De lapid.* §7 ll. 150-151); ascribed also to the stone *eliotropia* ("Se quoque gestanti dat plurima vaticinarei, Atque futurarum quasdam prognoscere rerum." §29 ll. 428-429), *hyena* (§44), and *chelonite* whose power shifts with the changing of the moon (§39 ll. 535-543).

[67] Ascribed to *gerachite* known as the 'hawk-stone' ("Quem prius abluto si quis gestaverit ore, Dicere mox peterit quid de se cogete alter." *De lapid.* §30 ll. 443-444).

[68] "Cui tamen amplior hic concessa potentia fertur, Nam si jungatur ejusdem nominis herba, Carmine legitimo, verbo sacrata potenti, Subrahit humanis oculis quemcunque gerentem." *De lapid.* §29 l. 435-438.

[69] *De lapid.* §57.

[70] *De lapid.* §45 ll. 596-601. Interestingly, the apposite virtue of protecting the prey from the hunter's attack is ascribed to the stone by Albert the Great. See *De Mineralibus* II.ii.10 regarding *Lippares* which states that "all wild beasts, when harassed by hunters and dogs, run to it and regard it as a protector. And they say that dogs and hunters cannot [harm] a wild beast so long as it is in the presence of the stone." Translated in Wyckoff, 102.

Their power of stones was not limited to individual influence but extended also into social contexts. *Carnelion* was said to quench anger in quarrels and thus promote peace and harmony between neighbors.[71] *Calcedonio* was said to grant success in law-suits when worn around the neck or hand.[72] *Sapphire* breaks a captives chains and opens prison doors.[73] Other stones such as *silenites* could be used to attract love. Care must be taken, however, for its power waxed and waned with the changing of the moon.[74] Others could be used to strengthen the bond of marital love and commitment.[75] *Magnete* was seen as especially practical since in addition to attracting love it could also be used to test a wife's faithfulness,[76] calmed marital disputes, and strengthens marital love.[77] *Gagates* could be used to test another's virginity.[78] Not all stones, however, possessed beneficial powers. *Onyce*, for instance, was believed to incite quarrels[79] for which Marbod

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[71] This power was ascribed to *carnelion* (*De lapid.* §22). This particular virtue is likely an extension of the stone's power to stop a flow of blood. This power is also ascribed to *sapphire* (§5 ll. 120-122). *Androdamma* by virtue of its warmness is said to calm friends (§48 ll. 620-621).

[72] "Calcedon lapis est hebeti pallore refulgens, Inter iacinthum edoiximus atque berillum; Qui si pertusus digit colove geratur, Is qui portat eum prohibetur vincere causas." *De lapid.* §6 ll. 129-132. Similarly, chelidonio has the power to sustain business when worn on the finger as well as calms the king's anger (§17 l. 263-264).

[73] *De lapid.* §5 ll. 116-117.

[74] "Lunares motus et menstrua tempora servat: Crescit enim luna crescente minorue minuta Efficitur, tamquam coelestibus anxia dampnis." *De lapid.* §26 ll. 385-387. The *London Lapidary* [Bodl., Douce 291] §2, EML, 19 suggests that the color of *topace* changes with the changing of the moon (cf. *De lapid.* §13 l. 211 which states "Quodque magis mirum, lunam sentire putatur").

[75] *Berril* is ascribed the power to bind married couples in love. See *De lapid.* §12 l. 198.

[76] "Nam qui scire cupit sua num sit adultera conjux, Suppositum capiti lapidem stertentis adaptet; Mox quae casta manet petit amplexura maritum, Non tantum evigilans, Cadit omnis adultera lecto, Tanquam pulsa manu, subito fetore coacta, Quem lapis emittit celati criminis index." *De lapid.* §19 ll. 294-299.

[77] "Conciliare potest uxoribus ipse maritos, Et vice versa nuptas revocare maritis." *De lapid.* §19 ll. 307-308.

[78] "Et solet, ut perhibent, deprehendere virginitatem" *De lapid.* §18 l. 281.

[79] "Multiplicat lites, et commovet undique rixas." *De lapid.* §9 l. 175. Bad dreams and general sadness are also attributed to the influence of *onyce*.

recommended *sard* to counteract its maleffects.[80] *Eliotropia* when set in water could be used to evoke storms even on the fairest day.[81] *Medo,* mixed with mortar and dropped in water, could be used to harm an enemy.[82] *Galactida* disturbed the mind if allowed to dissolve in the mouth.[83] Others could be used by thieves such as *optallio* which sharpens the bearer's eyesight but obscures that of his onlookers[84] or *magnete* which when strewn on coals would cause the residents to flee leaving the domicile unoccupied and unguarded, vulnerable to the thief's activities.[85] Some stones, however, have no particular powers associated with them but are listed purely out of interest and curiosity.[86]

The lapidary entry also included instructions on the proper manner in which the stone was to be used. Many were worn as amulets. The entry indicates the best setting for the stone and how it is to be worn. *Iaspide* which was used to assist women in childbirth is best used as an amulet encased in silver;[87] suspended with an ass's tail-hairs in a golden casing from the left arm, *chrysolite* frightens demons of the night, granting

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[80] "Excepto quod onix nequit hoc praesente nocere." *De lapid.* §10 l. 183.
[81] *De lapid.* §29 ll. 420-428.
[82] If he uses the water to wipe his brow, his eyes will go blind; or if he drinks of the water his lungs will rupture (*De lapid.* §36 l. 517-521).
[83] *De lapid.* §42 l. 576.
[84] "Avertens oculis morbos optallius omnes Asseritur furm tutissimus esse patronus. Nam se gestanti visus conserva acutos, At circumstantes obducta nube reundit Ut spoliare domos possint impune latrones." *De lapid.* §49 ll. 623-656.
[85] "Si fur claustra domus spoliis grazisque refertae, Ingrediens, prunas ardentes per loca ponat, Ut per tetragonum fumi calor alta vaporet. Mentibus eversis, velut impendente ruina, Diffugient omnes in ea quincunque manebat, Et fur securus rapiet quaecunque libebit." *De lapid.* §19 ll. 300-305.
[86] See for example the stone *sardonice* of which Marbod writes "cuius virtutes alias reperire nequivi." *De lapid.* §8 l. 171; also *alabandina* (§21), *carbuncle* (§23), *abesto* (§33), *sadda* (§35), *gelatia* (§37), *exacontalito* (§38), *enidro* (§46), *iris* (§47), *unione* or *margaritis* (§50), *absictus* (§52), and *criselectro* (§59). While Marbod says that the virtues of *crisoprasso* lie hidden (§15 l. 238, cf. §60), its virtues are expounded in the later Middle Ages (*Marbode,* 53; see also *prasio* §40 in *Marbode,* 77). The inclusion of such 'ineffectual' or 'inert' stones illustrates and highlights the general fascination which stones held within medieval society.
[87] *De lapid.* §4 l. 102. *Echite* was similarly hung from the upper left arm (§20 l. 367).

comfort and security to its bearer.[88] The red variety of *chelidonio* when wrapped in a linen cloth and worn in the left armpit was a cure for lunacy.[89] Not all stones, however, were used specifically as amulets. Some were used externally to effect their particular cure. *Epistite* was to be worn over the heart;[90] *alectorius* and *iacincto* were to be held in the mouth.[91] Others such as *emathite* were ground into a powder and applied as a salve or taken internally.[92] *Sapphire* could be ground and rubbed on with milk to treat body sores,[93] and in some cases, water in which the stone had lain could be used to effect the desired cure.[94] When burned, *gagate* was believed to treat epilepsy, but also provoke menstruation.[95]

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[88] "Esse philacterium fixus perhibetur in auro. Contra nocturnos fortis tutela timores. Pertusus setis si tranciatur aselli, Demones exterret, et eos agitare putatur. Trajectum levo decet hunc portare lacerto." *De lapid.* §11 ll. 187-191.

[89] The specific color of the linen is also significant in the cure as when a yellow linen is used, *chelidonio* dispels fevers and holds harmful humors in check. See *De lapid.* §17 ll. 256-267.

[90] "Pectore sed memori fixumtenemus oportet, Qua cor parte jacet lapides hos esse gerendos." *De lapid.* §31 ll. 465-466.

[91] *De lapid.* §3 l. 83; §14 l. 225.

[92] Ground and mixed with pomegranate (?) juice, *emathite* was used to treat growths on the eyelids and weakened eyesight; drunk in water it was believed to stay the 'female flux;' pressed into wounds, the powder helped heal flesh wounds; dissolved in wine, it was used to treat diarrhea as well as removes the pain of a snake or asp bite; mixed with honey and applied as a salve, it was used to treat diseased eyes, when drunk, it was believed to dissolve bladder stones ("Stiptica cui virtus multa probatur inesse; Nam palpebrarum super illitus asperitatem, Et visus hebetes pulsa caligne sanat. Ejus fragmento si glarea mixta sit ovi, Succo dilutus, quem punica mala remittunt, In medicinali velut ad colliria cote, Vel resolutus aqua, juvat hos qui sanguinis ore Spumas emittunt, et quae sunt [linit?] ulcera curat [sanat?] Potatus stringit patitur quem femina fluxum, Canes crescentes in vulnere, pulveris hujus Vis premit, et ventrem retinet sine more fluentem. Vino dilutus veteri bibitusque frequenter Serpentis morsum, vel quod fit ab aspide vulnus Egregie curat, resolutus aquis et inunctus. Mixtus melle polest oculos sanare dolentes. Vesicae lapidem bibitus dissolvere fertur." *De lapid.* §32 ll. 469-484).

[93] *De lapid.* §5 l. 125.

[94] *Chelidonio* washed in water is said to soothe weary eyesight ("Et dilutis aqua languentia lumina sanat" §17 l. 164). Similarly, the water in which *gagate* is washed can be used to firm loosened teeth ("Et dilutus aqua dentes firmat labefactos" §18 l. 274). By drinking water in which gagates has been soaking for three days, a woman will be delivered from a difficult birth ("Pregnans potet aquam triduo qua mersus habetur, Quo vexabatur partum cito libera fundit" §18 ll. 282-283).

[95] *De lapid.* §18 ll. 275-277.

Ian Bishop notes that in addition to the so-called 'pagan' or medicinal virtues ascribed to stones, the lapidary entry may also include what he calls a "religious significance."[96] Drawn from the tradition of biblical commentaries, the Christian lapidary emerged initially as a moralizing devotional tract. While William Holler notes that the religious significance of the stones may consist of moral, symbolic, and mystical interpretations,[97] the emphasis that emerges in the king Philip lapidary is primarily moral. The religious significance may also be offered for other stones.[98] The religious interpretation follows immediately after the description of the stone's medicinal properties.

The entry begins in the same way as in the medical lapidaries. The writer introduces the name and offers a physical description by which the stone can be identified. The brevity of the physical descriptions, however, suggests that the canonical stones were generally well known.[99] This is followed by a discussion of the natural virtues associated with the stones. This listing of natural virtues ascribed to the canonical stones is longer and given greater attention than that of the other stones. These natural properties of the stone correspond to the 'literal' dimension of its significance.[100]

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[96] Bishop, 469.

[97] William Holler, *Manuscripta,* 185, 186, 188; also idem, "Unusual Stone Lore in the Thirteenth-Century Lapidary of Sydrac," *Romance Notes* 20 (1979): 138. Drawn from the patristic biblical commentaries, the religious significance parallels the four-fold interpretation of Scripture.

[98] For example, in addition to the canonical stones, §13 *Baleys*, §14 *Crisophas*, §15 *Calcedoyne*, and §16 *Sardoynes* of the *London Lapidary* [Bodl., Douce 291] EML, 16-37 also include a brief religious significance.

[99] For example, in describing *sardes*, the London Lapidary simply states "Sardes & Iagonces ben wexyng to-gedre, but þe Iagou*n*ce hath þe vertues of all thise stones and is þe moste fyne thyng of þe Worlde. He yeueth colour gentil & reed," (§1 EML, 18) after which the entry continues with a discussion of the stones physical virtues.

[100] It would be interesting to pursue a comparative study of lapidary/besitary entries and the hermeneutical paradigms applied to the Christian Scriptures within the late medieval period.

The entry then continues with a presentation of the religious significance of the stone.[101] This is drawn variously from the stone's color, its placement in Aaron's breastplate and its order in the foundation of the heavenly Jerusalem, each of which may contribute a particular dimension of its religious significance. This can be seen for example in the London lapidary's description of the stone *sardes*.

> The verray boke telleth vs þat god named first this stone, & was of þe colour of þe reed erthe wherof God made þe first man, Adam,[102] in þe felde of Damas, wherof we be all of þe same begetynge and þerfore named god this stone first; and in that hit is of þe same colour, hit signifieth the synne of Adam, wherof all we be in peyne & traueile.
>
> Seint Iohn seith in þe apocalipce þat he sawe this stone in þe sixte foundament of the verray Kyngdome. And þe sixte signifieth þat Adam was fourmed þe sixte daye. The reednes of this stone signifieth þe blode of Ihesu criste þat was shadde for man on þe sixte day, þat was at þat tyme; and for þat signe was first named this stone of god & of seynt Iohn.[103]

The stone's religious significance, however, is not merely as an intellectual mnemonic symbol, but carries with it the same efficacious realism as the medical virtues. Ruby, for instance, from which all red stones derive their colour "signifieth Jhesu Xrist þat come into this worlde for to lighten oure derkenes." The lapidary states that "Al thei þat þe rubie & the veray bryghtnes of þe rubie beholden shulde beholde þe veray lighte of Ihesu Xrist."[104] The beholding of the stone is equated with the seeing of Christ. *Rubie* is

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[101] These appear to have been established in the West through the influence of Bede. See Kitson, "Lapidary traditions: part II," 88.

[102] The Hebrew root for the name 'Adam' is also the same as for the word 'earth' or 'soil' as well as the color 'red.'

[103] *London Lapidary* [Bodl., Douce 291] §1, EML, 18-19. Similarly, *topace* is the second stone in the breastplate and thus signifies the "second life of þe high heuenly Kyngdome" and consequently the Beatific Vision wherein "a man myght se god in þe face" (§2 EML, 19-20); the blue color of *safire* is the same as that of the heavens and thus symbolizes hope (§5 EML, 23); the purple of amatist is the same as that of newly shed blood and thus calls to mind the royalty of Christ at his passion (§9 EML, 26).

[104] *London Lapidary* [Bodl., Douce 291] §4, EML, 21-22.

portrayed as fostering and strengthening the moral virtues it represents based on its symbolic significance. Similarly, the tenth stone on the breastplate—*crisolide*—symbolizes both the Ten Commandments and the miracles and prophecies of Christ. Borne on the left side, *crisolide* both defends against demons, gives a good name, and fosters true and righteous living.[105] Other more fantastical virtues, such as the ability to communicate with the dead, are occasionally given as well.[106]

Conclusion

People in the Middle Ages evidently believed that "stones can control almost any aspect of the environment as well as most physical ailments as diagnosed."[107] The lapidary-knowledge portrayed within the texts can be summarized under two main points. The first is that lapidary-knowledge was eminently practical. The lapidaries provided both information for the physical identification of the various stones and the virtues consistently focused on what the stone was good for and how it was to be used. The lapidarists did not concern themselves greatly with matters of theoretical explanations.[108] Secondly, the modern categories of magic, science, and religion, combined freely within the texts without apparent contradiction. Both the Christian and the so-called 'pagan' virtues

[105] "& as the boke seith, þat who þat blisful stone berith he shulde lyue trewly, & hit shulde be borne vppon þe lefte side." *London Lapidary* [Bodl., Douce 291] §10 *Onicles* EML, 26-27.
[106] "& as the boke telleth vs, hit maketh man to speke to his deede frend be nyght in metynge; & yef he falle to mete be the morow then þe dede is in traueile." *London Lapidary* [Bodl., Douce 291] §11 EML, 27.
[107] John Riddle and James Mulholland, "Albert on Stones and Minerals" in *Albertus Magnus and the Sciences: Commemorative Essays*, edited by James Weisheipl (Toronto: Pontifical Institute of Medieval Studies, 1980), 209.
[108] Vernacular lapidary 'science' or knowledge could thus be construed to operate between a mythic and magical level. Cf. Goltz, 4.

ascribed to the stones were taught to be divinely given. 'Pagan' mythic accounts and virtues were interpreted allegorically for Christian redemptive realities.[109]

[109] Kitson, "Lapidary traditions: part II," 86.

CHAPTER FOUR

MEDIEVAL SCIENCE ON THE VIRTUES OF STONES

The belief that stones had medical and other virtues was far from considered superstitious in the Middle Ages. It was received as an accepted part of the medieval understanding of the world.[1] The cosmos was understood to subsist in a metaphysical hierarchy from which proceeded the conviction of the interconnectedness and solidarity of the universe that underlies the whole of medieval science. The medieval observer, as Ernest Brehaut describes it,

> felt its unity much more strongly than they did its multiplicity; what we regard as separate kinds of phenomena and separate ways of viewing the universe they regarded as of necessity closely inter-related. There were no categories of thought that were for them mutually exclusive; they carried their ideas without hesitation from the material into the immaterial, and from the natural into the supernatural.[2]

As a result, medieval science was not so much descriptive as expository. Thus, unlike modern science which limits itself to a physical investigation of natural objects and phenomena, the medieval scientist understood the physical and metaphysical dimensions of reality to be intimately intertwined. The cosmos was first and foremost a metaphysical machine of which the physical component is the lowest rung. Medieval science was thus

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[1] Albert Magnus, the greatest medieval scientific writer himself defends the belief in the powers and virtues of stones against those who would deny it. See *De mineral*. II.i.1. in Wyckoff. Cf. *Litho*, 39, 41.

[2] Ernest Brehaut, *An Encyclopedist of the Dark Ages: Isidore of Seville* (New York: Columbia University, 1912; reprint New York: Burt Franklin, n.d.), 64.

inherently a metaphysical science.[3] The physical dimensions of reality were understood and explained in terms of metaphysical truths. It is within this context that the deliberative theories of the medieval science of mineralogy emerged.

As today, the Middle Ages had a host of scientific writers. For the sake of expediency, we will focus our attention on Albert Magnus whose work *De mineralibus* both summarizes and reflects medieval intellectual developments with his use of Aristotelian metaphysics in the explanation of natural phenomena as well as sets the direction of mineralogy for centuries to come. The work itself consists of five books in which Albert presents a discussion of the science of mineralogy in general (Book I), a lapidary (tractate ii) with accompanying discussion on the causes of the powers of stones (tractate i), and comments on natural and astrological sigils (tractate iii) (Book II).[4] Albert's alphabetic lapidary is derived from Marbod, Thomas of Cantimpré, and Arnold of Saxony and as such does not present anything distinctively different or new.[5]

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[3] Brehaut aptly describes this perspective of medieval science as follows: "It is evident, therefore, that if we compare the dogmatic world-view of the medieval thinker with the more tentative one of the modern scientist, allowance must be made for the fact that they take hold of the universe at opposite ends." Ibid., 68. Compare also the discussion of Hildegard of Bingen's medical concepts in Heinrich Schipperges, "Die Welt Der Elemente Bei Hidegard von Bingen," in *Licht der Natur: Medizin in Fachliteratur und Dichtung*, edited by Joset Domes, Werner F. Gerabek, Bernhard D. Haage, Christoph Weißer, and Volker Zimmermann. (Göppingen: Kümmerle Verlag, 1994), 365-380.

[4] The work continues with a discussion of the science of metals in general (Book III) with a listing of metals and their particular properties (Book IV), ending with a discussion of intermediate substances (Book V). [These are substances which are neither metals nor minerals according to the medieval division, but display properties of both. Albert includes salts, atramentum, alum, arsenicum, marchasita, nitrum, tuty, and electrum within this category.] Our discussion will focus on the contents of books I and II as these deal specifically with the topic of stones.

[5] John Riddle and James Mulholland list Bede also as one of Albert's sources. See John Riddle and James Mulholland, "Albert on Stones and Minerals" in *Albertus Magnus and the Sciences: Commemorative Essays*, edited by James Weisheipl. (Toronto: Pontifical Institute of Mediaeval Studies, 1980), 209.

On the Causes of Stones

Medieval science made use of Aristotle's theory of causes in order to explain natural phenomena and objects. Objects were studied in terms of their material, efficient, formal and final causes. The same system was applied to the study of mineralogy.

Albert explains that the material cause of stones is in the power of the elements.[6] The cosmos was taught to consist of five basic elements. Derived from Hellenistic science and Aristotle, these were enumerated as earth, water, air, fire, and the elusive *quintessence*. These five elements were believed to be separated and stratified within the cosmos by weight.[7]

Minerals were believed to be a mixture of earth and water. Earth by nature was considered to be dry and heavy. It is because of this earthen essence that minerals sink in water. Earth on its own, however, would not be able to maintain a physical body but revert back to dust. It requires a "gluing together" of the earth's dry particles provided through the viscous property of water. It is on account of its mixture with water that the dry earthen element is able to maintain its physical shape. Similarly water on its own lacks the solidity needed to form a stone and requires the action of the other elements upon it to maintain its shape.

Medieval science did not neglect to ask the question of how minerals were formed. Many theories as to the efficient cause of stones had been suggested throughout history.

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[6] *De mineral.* I.i.9. "[T]he power of the elements is the *material cause*, and the power of the heavens is the *efficient cause*, and the power of the Mover is the *formal cause*; and the result of all these is the power that is poured into the material of stones and the place where they are formed." Wyckoff, 35.

The classical authorities agree that the generation of stones can be ascribed to a certain *mineralizing power*, but among them there is no consensus as of what this power actually consists.[8] Albert suggests that three conditions are necessary for the generation of stones. First, the place in which a stone is generated needs to be endowed with the appropriate constituent elements needed for the formation of a stone. Using a biological analogy, he suggests that just as plants and animals are produced from seeds produced by them, so too in "stones, there is a power that forms and produces stones, and develops the form of this stone or that."[9] But having the bare ingredients does not explain what incites them to join together in the formation of particular stones. This is ascribed to the influence and action of the stars.[10] Albert explains, "when dry material that has been acted upon by unctuous moisture, or moist material that has been acted upon by earthy dryness, is made suitable for stones, there is produced in this, too, by the power of the stars and the place ... a power capable of forming stone—just like the productive power in the seed from the testicles."[11] Third are the instruments of heat and cold as applied through the motion of the stars. Minerals are produced through the instruments of heat, by the removal of

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[7] The lightest was the *quintessence* which circulated in the superlunary sphere, next was the element of fire which was associated with the sun, this was followed by air, water and earth respectively according to their placement within created order.

[8] Albert relates that Avicenna merely states that stones are produced by a 'mineralizing power' but fails to elaborate further. Similarly Hermes spoke of a universal generative power emanating from the sun (mars?) which is present in all things. Albert, however, criticizes this explanation as missing the point by pushing an explanation of the immediate causes involved in the generation of stones into the realm of first causes. Empedocles's theory that stones are produced by burning heat is rejected entirely as, among other criticisms, "some stones are produced by cold." Democritus espoused a theory that stones have souls which animate their generative power. Albert rejects this position since "stones have no function corresponding to a soul," and "we never see stones reproduced from stones." Other unnamed alchemists suggest that stones are formed entirely by accident through the action of fiery heat, but this view rejected because "the consequence of these [arguments] is intolerable error." *De mineral.* I.i.4. Wyckoff, 18-21.

[9] *De mineral.* I.i.4. Wyckoff, 22.

[10] *De mineral.* I.i.9. Wyckoff, 35.

excessive moisture, or by cold, in the formation of crystal by analogy with the formation of ice. Thus just as an animal produces an animal by its seed, so to does a mineral produce another of its kind by a similar process of generation.[12]

Place, moreover, is also important for the formation of specific minerals as not all stones and minerals are found in every place. Furthermore, place is not limited to any particular element or clime. Stones are found in all regions of the earth and may be formed in earthen or rocky areas, as much as in water,[13] air,[14] fire,[15] and "even more remarkably ... in the bodies of animals."[16] Since specific stones are consistently found in specific areas, Albert deduces that the place of formation contains the seed of the stone's eventual form.[17] Albert summarizes that the power of a place is a combination of three powers. The first is the power of the Mover that moves the sphere that shapes the form of the stone produced "as the power of an art is related to the material of the artifact."[18] The second is the power of the sphere that is moved, which acts like the hand of the artificer "with all its parts, and the figures that result from the varying positions of the parts with

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[11] *De mineral.* I.i.4. Wyckoff, 22.

[12] See for example §73 *Egestes* of the *Peterborough Lapidary* which is claimed to be found in both male and female forms. EML, 88. See also C.J.S. Thompson, *Magic and Healing*. (New York: Rider & Company, 1947; reprint Detroit: Gale Research Company, 1973), 121 where sapphires are described as being either male or female based on the depth of their colour.

[13] As in the case of *corallus* that comes from the sea. *De mineral.* II.ii.3. Wyckoff, 81.

[14] As in the case of *ceraurum* that comes from the clouds. *De mineral.* II.ii.3. Wyckoff, 79.

[15] As in the case of volcanic lava which is forged in fire. See note 10 in Wyckoff, 29.

[16] *De mineral.* I.i.7. Wyckoff, ibid. *Alecterius* that comes from a cock's gizzard can be cited here as an example. *De mineral.* II.ii.1. Wyckoff, 73.

[17] "It seems very difficult to reduce [whatever is in] all these places to one common material; but nevertheless, this must necessarily be so, since we have no doubt that one particular kind of mixed body always results from one particular kind of cause. For all things produced must have a certain place of production, and away from this they are destroyed and dispersed." *De mineral.* I.i.7. Wyckoff, 29.

[18] *De mineral.* I.i.8. Wyckoff, 30.

respect to each other as they move more rapidly or more slowly."[19] "The third is the power of the elements—that is, hot, cold, moist, dry, or a mixture of these" which act like the artist's instruments in the fashioning of the stone.[20]

Albert ascribes the formal cause of stones to the power of the prime Mover.[21] The form of an object is that which gives it its identity; it is that which holds matter together and from which its essential activities are derived. Without form, the constituent elements of an object are "[free] to return to their natural places."[22] Albert notes that earlier writers had equated the 'form' of an object with its 'soul,' but is careful to note that this is not the case with stones since they do not exhibit any of the properties of life.[23] Stones do nonetheless have a specific form since they can be distinguished one from another. Moreover, the form of the stone consists of more than simply their material composition or accidental properties but is rather constituted in their virtues.[24] Since stones are inanimate, Albert equates the formal cause of stones with their final cause.[25]

Accidental Properties of Stones

Albert spends some time explaining the cause of accidental variations observed in stones. Accidental properties are those that occur spontaneously, by chance or individual

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[19] Ibid.
[20] Ibid.
[21] *De mineral.* I.i.9. Wyckoff, 25.
[22] Wyckoff, 64.
[23] Since stones do not exhibit any of the properties of life, Albert concludes that "stones, therefore, have not souls; but they do have substantial forms, imparted by the powers of heaven and by the particular mixture of their elements." *De mineral.* I.i.6. Wyckoff, 24-25.
[24] Albert follows the views of Avicenna on this point. Riddle and Mulholland, 206.
[25] Albert writes "we need not look for a final cause, since in physical things the form is the final cause; and so, since we think we know each thing once we know its essential and particular causes, we now understand completely the things which all stones have in common." *De mineral.* I.i.6.

circumstances but do not change the substantial form of an object. In the case of stones, these include its size, texture, fissility or non-fissility, hardness, and color. The texture of a stone—whether it is dry, brittle, porous, or gravely—is said to be due to how well the elements are mixed within the particular stone. Stones that are well mixed have an even and consistent texture and hardness whereas those that are badly mixed show variation.[26] Similarly, fissility[27] is ascribed to the alignment of pores in straight rows as a result of the manner of their mixture or generation. The presence of pores in stones is explained as a poor mixture of earth and water whereas compact stones are formed out of a more subtle vaporous water which mixes more evenly with the earthen element of the stone. Those in which pores are aligned split into slabs and are said to be fissile whereas those whose pores are not aligned break randomly into small pieces and are called non-fissile.[28] Hardness is said to be a function of the degree of the stone's dryness. The less moisture present in the material substance, the less malleable it is. Lastly, the stone's color is the result of the presence of other elements within the mineral substance. A completely transparent stone, for instance is said to be composed of air and water; the presence of earth makes the stone blue and even black when a large concentration is present; fire (smoke) tints stones red; green results from the mixture of earthen and watery elements; brown is caused by a mixture of smoke and water; white is said to be the result of air pockets intruding in a transparent substance.

Wyckoff, 26. While a stone may not have a final cause in and of itself, this does not limit its utility within the cosmic order to serve the final cause or end of humanity.

[26] Albert uses the analogy of a brick-maker in the preparation of his bricks. See *De mineral.* I.ii.1. Wyckoff, 37.

[27] The tendency of some stones to break into slabs along sedimentary planes.

[28] *De mineral.* I.ii.6. Wyckoff, 49.

Albert also briefly comments on the presence of fossils and the shapes of plants and animals as observed in certain stones. He notes that these are not simply created images but actually animals that have changed to stone. These creatures, he claims, have had the misfortune of wandering into areas in which there is a particularly strong *mineralizing power* and have in that place become 'petrified' themselves. Just as water and earth can serve as the material of stones, so too may animals become 'petrified' under the *mineralizing power* of certain places.[29]

On the Powers of Stones

The natural virtues of an object were believed to be a function of its specific form as manifest in its material composition. While Albert believed that the virtues of stones were a function of their specific form, the form of an object is necessarily manifest within its material composition. As such, the virtues of stones were considered to be both indirect and accidental.[30] They were considered to be indirect because of their mediation through the material substance, and accidental as they were found to vary within stones according to their geographical distribution. Moreover, the power of stones may either be natural or by art.[31] These virtues could also be imitated by the art of engraving astrological sigils.[32]

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[29] *De mineral.* I.ii.8. Wyckoff, 52-53.
[30] Riddle and Mulholland, 208.
[31] This may correspond to the distinction observed in both Marbod and Vincent of Beauvais between the natural and medicinal properties of stones. This particular point, however, would have to be studied further. See *Marbode*, 22.
[32] For a discussion of the use of engraved stones in Medieval England see John B. Friedman, "'Dies boni et mali, obitus, et contra hec remedium': Remedies for Fortune in Some Late Medieval English Manuscripts," *Journal of English and Germanic Philology* 90 (1991): 311-326.

A stone's natural powers were believed to be a function of its particular form and not specifically its elemental composition.[33] Albert writes that "we state, in agreement with Constantine and some others, that the power of stones is caused by the specific substantial form of the stone ... for everything has its own proper work, its own good, according to the specific form by which it is shaped and perfected in its natural being."[34] This form exists as "something divine" which is manifest materially in individual objects.[35] While Albert states that form, "purely in itself ... is a simple essence capable of only one function," its powers and activities are multiplied in relation to the heavenly powers exerted in the movement of the stars, and the powers and properties of the individual elements. Therefore, he explains that "it will be productive of many effects, even though perhaps it has one function that is particularly its own ... And this is why nearly everything is good not merely for one purpose, but for many, when its functions are understood."[36]

Form in its specific material manifestation may, however, exhibit a greater or lesser degree of power. "Among stones of the same specific form, some are found to be more potent and some less potent in their effects; and perhaps some are even found to lack completely the effect [characteristic] of the specific form." Albert explains this as resulting from disorder within the material of the particular stone which in turn obscures the natural virtues inherent within it.[37] The potency of a stone's virtues is also ascribed to the vitality of its form. Albert notes, however, that a stone's form is 'mortal.' Over time,

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[33] Albert argues this position on the basis that the elements have only their primal characteristics and even in combination, could not account for the specific virtues and powers which are experienced and observed to be present in gems and stones. *De mineral.* II.i.3. Wyckoff, 62-64.
[34] *De mineral.* II.i.4. Wyckoff, 64-65
[35] Ibid. Wyckoff, 65.
[36] Ibid. Wyckoff, 65-66.

a stone may cease to be a stone though it retains the same shape and color.[38] Albert explains that "if [stones] are kept for a long time, away from the place where they were produced, they are destroyed, and no longer rightly deserve their specific name."[39] It is also possible that in the generation of the stone, as in the generation of animals or people, a disorder may emerge in the stone's generation so that it retains merely the appropriate appearance but lacks the form or characteristics properly associated with it.[40]

Virtue may also be imitated by the engraver's art.[41] To this end, Albert spends some time in discussing sigils and images in stones. He notes that the topic properly belongs to "that part of necromancy which is dependent on astrology, yet, because it is good doctrine, and because the members of our Order have desired to learn this from us, we shall say something here—though rejecting all incomplete and false statements—about whatever has been written of these things by many people."[42] Albert notes that there are three types of images that may be found on stones. The first are images or pictures that are found to occur naturally.[43] Albert is referring both to apparently natural images but

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[37] Albert explains "just as a man, simply because he is a man, does not necessarily behave like a human being." Ibid. Wyckoff, 66.

[38] The identity of the stone is wrapped up primarily in its specific form rather than in its chemical composition as in modern mineralogy. Its identity thus has a transcendent and metaphysical quality rather than a purely materialistic one.

[39] Ibid.

[40] Albert is using an analogy to children born with mental disabilities that retain the appearance of a human but lack the normal characteristics of humanity and were thus believed not to have been born with a human soul. Ibid., Wyckoff, 67.

[41] "The virtue believed to be inherent in precious stones was thought to gain an added potency when the stone was engraved with some symbol or figure possessing a special sacredness, or denoting and typifying a special quality." George Frederick Kunz, *The Curious Lore of Precious Stones* (Philadelphia & London: J.B. Lippincott Company, 1913; reprint New York: Dover Publications Inc., 1941), 115.

[42] *De mineral.* II.iii.1. Wyckoff, 127.

[43] This includes a corpus of Roman camei that were unearthed later in the Middle Ages. Since these stones appeared to occur naturally, it was commonly believed that the images engraved in

also to Roman camei that had been discovered and unearthed in the Middle Ages. Apparently, medieval writers did not realize that these had been crafted by human hands, but believed them to be a natural occurrence. Albert explains their occurrence that just as certain junctures of the stars may cause a human child to be born with monstrous features or impress the form of a human face on pigs or calves or other beasts, so too in the formation of stones, the juncture of the stars may impress pictures of objects or human forms upon them.[44] The second are images that are embossed or projected onto stones by the means of human art.[45]

The third, however, are astrological images that may be engraved onto stones. Albert discusses this practice as an art through which the natural virtues of a stone may be magnified through sidereal ties by means of astrological images. He comments that "the configurations of the heavens are the primary figures, having precedence over the figures of all things made by nature and by art. For that which is first in kind and order among productive powers undoubtedly pours its causal influence into everything that comes after, in a manner suitable to each [thing]."[46] Since skill in art, even as the works of nature, are forged and instilled in humanity by the action of the heavens, so too the art of astrology

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Roman times were actually natural images. For examples, see C.W. King, "On the Use of Antique Gems in the Middle Ages," *Archaeological Journal* 22 (1865), 118-119.

[44] *De mineral.* II iii.2. Wyckoff, 131.

[45] Albert briefly outlines three methods used in the Middle Ages. The first method combines both art and nature. The artisan's material is crafted and shaped into the intended form and then petrified in a water possessed of a strong mineralizing power. The second method Albert calls "more deceitful" in that the image is shaped by means of a sigil and then hardened by alchemical processes. The third method, of which Albert admits he has limited knowledge, is by the art of gem engraving. Ibid. Wyckoff, 132-133.

[46] *De mineral.* II.iii.3. Wyckoff, 135.

may be used to enhance the natural powers of stones.[47] Thus, "in considering the craft of making gems and metallic images in the likeness of the stars, the first teachers and professors of natural science recommended that the carving be done at duly observed times, when the heavenly force is thought to influence the image most strongly, as for instance when many heavenly powers combine in it."[48] In engraving gems, careful attention needs to be paid both to the heavens and the quality of the image engraved. Albert lists five integral elements in the engraver's art. The first is the starless sphere through which motion and life is imparted to the heavens and the earth. The second is the influence of the constellations. Thirdly, the position of the planets within the Zodiacal Signs is also important in etching the power of the heavens in the stone. Fourthly, the elevation and elongation of the planets and constellations within the night sky is important. Lastly, the engraver must be aware of the latitude of his own geographical position in relation to the first four points. Albert explains

> the last must be carefully observed since from this and the preceding [arise] the variations in the size of the angle at which the rays strike the figure of anything produced by nature or by art. And it is in accordance with the size of this angle that the powers of heaven are poured into things.[49]

Through the images engraved, celestial rays could be impressed into the stone to be used for medicinal purposes. The stone would thus be the receptacle and bearer of the celestial radiation according to its engraving. But just as the natural powers of stones endure only for a certain time, so it is also with those produced through the engraver's art.

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[47] "Therefore we must conclude that if a figure is impressed upon matter either by nature or by art, [with due regard to] the configuration of heaven, some force of that configuration is poured into the work of nature or of art." *De mineral.* II.iii.3. Wyckoff, 135.
[48] Ibid.
[49] Ibid. Wyckoff, 137.

On the Physiological Action of Stones

While Albert does not specifically discuss the physiological action of stones in his treatise on minerals, medieval science did offer an explanation. Modern theorists have tended to selectively follow the medieval opinion that the virtues of stones were operative through the power of suggestion. It was believed that stones exerted a psychological influence on their wearers and this has been mistakenly understood that medieval writers were suggesting that the virtues of stones were merely the result of a placebo effect.[50] This, however, does not explain some of the marvelous virtues ascribed to them even by scientific writers such as Albert.

To understand this medieval explanation, it is necessary to take a brief recourse to the medieval phenomenology of the senses. Even as the stars radiate a celestial energy which finds a natural sympathy in like elements on earth through which they influence the sublunary world, so too, natural objects were believed to emit a similar radiation according to their elemental composition and form.[51] The power of a stone was thus communicated through such a radiation that might be applied to the body through touch, taste, sight, or smell and thus influencing the individual's body through this sensual

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[50] "Auto-suggestion may also afford an explanation of much that is mysterious in the effects attributed to precious stones, for if the wearer be firmly convinced that the gem he is wearing produces certain results, this conviction will impress itself upon his thought and hence upon his very organism. He will really experience the influence, and the effects will manifest themselves just as powerfully as though they were caused by vibrations or emanations from the material body of the stone." Kunz, 3. Cf. also W. L. Hildburgh's comments that "tremendous power may be exerted by mass-belief, whether through suggestion by precept or by example—or, conceivably, through some psychical action whose effect we may percieve without at present being able to discern clearly its cause;" and again later, "an amulet is a tangible symbol of hope, pleasurably fortifying the spirit of the person who employs it." Idem, "Psychology Underlying the Employment of Amulets in Europe," *Folklore* 62 (1951), 235.

[51] One can imagine the excitement and confusion when the more 'enlightened' scientists of later times discovered radioactivity.

contact.[52] This undoubtedly would have been the means by which one stone could counteract the maleffects of another. Through sensual interaction with the stone, the bearer would be influenced according to its particular virtue.

The question of the extent and influence of the powers of stones did also arise as a part of the medieval debate regarding *naturalia* and *contingentia*. Was the power and virtue of a stone entirely irresistible or could an individual overcome the power and influence of stones? Within the dogmatic context of medieval science, the influence of the stone's virtue was limited to action on the physical body leaving the mind and human will essentially free. The freedom of the human will as an expression of the *imago dei* was a cardinal doctrine underlying both theology and science. Albert notes that "in man there is a two-fold principle of nature, namely nature and will. And nature is controlled by the stars; but the will is free. But unless it resists, the will is drawn along by nature and becomes less flexible (*induratur*); and when nature is moved by the motion of the stars, then the will also begins to be influenced by the motions and configuration of the stars."[53] An individual was not thus bound to the influence of the stones any more than that of the stars, but could indeed resist them—difficult as it may be at times. The psychological

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[52] Urban T. Holmes III describes this medieval theory of sense perception as follows: "Sight consisted of the spirit traveling from the brain, down the optic nerve, out through the eyeball and meeting the spirit of the object seen. There the spirits commingled and colors and shapes were transferred to the spirit from the eye, which was carried back to the brain for reflection." *A History of Christian Spirituality: An Analytical Introduction* (New York: Seabury Press, 1980), 57-58. Cf. also William Holler's description where he explains that "the moisture of the eyes draws the image into them and renders it to the brain, which in turn communicates it to the heart (i.e., memory or intelligence). The idea of knowing a thing by heart, of course, has its origin in this ancient and medieval concept of memory." See William M. Holler, "The Ordinary Man's Concept of Nature as Reflected in the Thirteenth-Century French *Book of Sydrac*," *The French Review* 48:3 (1975), 528. For a detailed discussion of medieval theories of sensation and perception, see Simon Kemp, *Medieval Psychology* (New York: Greenwood Press, 1990), 31-76.

[53] *De mineral.* II.iii.3. Wyckoff, 135.

component of medieval stone-lore is thus better understood as stating that the human *anima* is influenced by the stones effectual[54] power of suggestion, but by no means bound by it.

Conclusion

Far from being a 'little tradition,' the belief in the powers and virtues of stones was received as an accepted part of the 'scientific' universe of the Middle Ages. There is no hint of doubt in Albert's treatise *De mineralibus* that stones really were possessors of the virtues described within the lapidary literature. Rather the powers and virtues of stones were expounded within an Aristotelian hermeneutical paradigm and explained in connection to the cosmological views of the later Middle Ages.

[54] 'Effectual' understood as 'real' within the medieval context within which the lapidaries were written.

CHAPTER FIVE

THE THEOLOGICAL DIMENSION OF MEDIEVAL STONE-LORE

A second area of deliberative thought regarding the virtues and powers of stones is that of theological reflection. From our contemporary vantage point, this combination of lapidary-lore and theology may seem entirely out of place, yet within the mindset of the Middle Ages, a study of the theology of the virtues and powers inherent in stones presented no intellectual conflict whatsoever. We live in a society that maintains a comfortable distinction between what is considered to be science on the one hand and religion on the other. Lynn Thorndike reflects this modern perspective in his comment that "science serves religion ... but religion for its part does not hesitate to accept science."[1] The distinction between science and theology, however, is modern and does not reflect the medieval mentality.[2] Don Cupitt more adequately reflects the medieval world-view stating that while medieval science studied the mechanics of nature, theology provided the context.[3] This is clearly seen to be true in the medieval theological reflections regarding the divine nature of the virtues of stones.

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[1] HMES II: 132.

[2] Theologians and scientists were often mutually quoted as authoritative sources in each other's documents. See also *Litho*, 42-44.

[3] "Mechanistic science was allowed to explain the structure and workings of physical nature without restriction. But who had designed this beautiful world-machine and set it going in the first place? Only scripture could answer that question. So science dealt with the everyday tick-tock of the cosmic clockwork, and religion dealt with the ultimates: first beginnings and last ends, God and the soul." See Don Cupitt, *The Sea of Faith* (London: British Broadcasting Corp., 1984), 64. Cf. also John Alford, "Medicine in the Middle Ages: The Theory of a Profession," *The Centennial Review* 23:4 (1979), 385.

The Powers of Precious Stones

The belief in the magical powers and virtues of stones was an outgrowth of the medieval doctrine of *exemplarism*[4] wherein the created world was viewed and understood to be a reflection of the beauty, power, and majesty of the divinity of its Creator. The first prologue to the *Second Anglo-Norman Lapidary* explains for its readers that God, who graciously governs all things, has created the world to demonstrate His great bounty. He has placed His power within words, herbs and stones to help and to cure.[5] The lapidary texts clearly assert that God Himself gave virtues in stones[6] on account of which they are considered 'precious,'[7] and that only a manifest sinner would doubt such a fact.[8] It is

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[4] "Bonaventure uses the language of the 'exemplar', as we might use the term 'prototype' or 'model'. God is the exemplar of all things; the humanity of Jesus is the expression of the exemplar; all creation is formed in Christ... Christ is the prototype, model or exemplar ... Every part of creation and every creature has as its model Jesus, the Christ, the Word incarnate." William J. Short, *Poverty and Joy: The Franciscan Tradition* (Maryknoll: Orbis Books, 1999), 115-116. Cf. also Heinrich Schipperges, "Die Welt der Elemente bei Hildegard von Bingen," in *Licht der Natur: Medizin in Fachliteratur und Dichtung: Festschrift für Gundolf Keil zum 60. Geburtstag*. Edited by Josef Domes, Werner F. Gerabek, Bernhard D Haage, Christoph Weißer, & Volker Zimmermann (Göppingen: Kümmerle Verlag, 1994), 366.

[5] "Deu de cel omnipotent, | Ki tut guverne bonement, | Tutes choses voüt crier | Pur sa grant bunté demunstrer. | De sa vertu plus unt partie | Parole, herbe e perie; | De queus parler e teus despendre | Mut vousisse pur aprendre, | Mes aparmemes de deus primereyn | Les parler e preng al dreyn. | De perie cunter me est cure, | Si com jo trof en escripture. | De acunes voil cunter partie, | Kar de tutes ne say mye." *Second Anglo-Norman Lapidary*, ll. 1-15, in ANL, 118. And again in the second prologue: "E nul sage hamme ne diet duter ke Deus n'yet mis vertuz en peres et en paroles et en herbes." Ibid., ll. 6-7, ANL, 118-119.

[6] "þe bible seith þat god himself yaue *ver*tu in hem." [from the preface, Bodl., Douce 291] EML, 17; cf. also "& a wyse m*a*n suld no3te mysbelef y*t* god has no3te sett *ver*tus in stones & in herb*es* & in word*es*" from the preface [Bodl., Add. A 106] EML, 39; "Also he seythe that no m*a*n schal be in dowte þ*at* god ha*þe* set & put gret *ver*tu i*n* worde, stone & erbe" [Peterborough, Cathedral 33], EML, 64.

[7] "Deus les i mist mult gloriuses: | Pur ce s'apelent preciuses." *First Anglo-Norman Lapidary*, ll. 41-42, in ANL, 29.

[8] "And wyse men schulde not doute *þ*at god ne hath put vertu in stones & herbes & wordes; & who so beleueth hit not but ayeinseith hit, he is but a synner" from the preface [Bodl., Douce 291] EML, 17; "& he *yt* beleues noght yis dose gret synn" from the preface [Bodl., Add. A 106] EML, 39; Compare this with the words of Volmar's derision "Er ist tumber dan ein gouch, ez sî wîp oder

stated so plainly that for one to think otherwise would be considered as a betrayal of both common sense and divine providence. This belief was taken up by the scholastic and explained within the framework of the newly recovered Aristotelian metaphysic.

According to Aristotelian thinking, God was conceived of both as the ground of all being as well as the prime Mover from whom all things are animated.[9] God was thus understood to be the source for both the form and vitality or 'virtue' of every created object.[10] Albert Magnus explains that the virtue of a stone is as a function of its specific form and thus derivative from God.[11] Thomas Aquinas likewise notes that the formal cause of all objects is a reflection of the divine substance of God.[12] Thus the propensity for and distribution of the specific virtues of the various stones was understood as being divine in origin—as was indeed the entire creation—present as *vestigia dei*.[13] According

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man, der sich kêret dar an und weiz doch daz ez ist gelogen: er hât sich selbe betrogen." Volmar, *Daz Steinbuoch*, ll. 18-22 in Lambel, 3.

[9] "Manifestum est autem quod, sicut motus omnes corporales redununtur in motum cœlestis corporis sicut in primum movens corporale, ita omnes motus tam corporales quam spirituales reducuntur in primum movens simpliciter, quod est Deus. Et ideo quantumcumque natura aliqua corporalis vel spiritualis ponatur perfecta, non potest in suum actum procedere nisi moveatur a Deo; quæ quidem motio est secundum suæ providentiæ rationem, non secundum necessitatem naturæ, sicut motio corporis cœlestis." *Summa* 1a2æ. 109, 1.

[10] This was developed as within the doctrine of *exemplarism* which taught that God is the exemplar or prototype of all created things – and when properly understood, creation lead one to a contemplation of God.

[11] Albertus Magnus, *De mineral*. II.i.3-4. Wyckoff, 62-65.

[12] "Ad secundum dicendum quod omnis substantia vel est ipsa natura rei, cujus est substantia, vel est pars naturæ; secundum quem modum materia vel forma *substantia* dicitur. Et quia gratia est supra naturam humanam, non potest esse quod sit substantia aut forma substantialis; sed est forma accidentalis ipsius animæ. Id enim quod substantialiter est in Deo accidentalieter fit in anima participante divinam bonitatem, ut de scientia patet." *Summa* 1a2æ. 110, 2.

[13] "In relation to our position in creation, the universe itself is a ladder by which we can ascend into God. Some created things are vestiges, others images; some are material, others spiritual; some are temporal, others everlasting; some are outside us, others within us. In order to contemplate the First Principle, who is most spiritual, eternal and above us, we must pass through his vestiges, which are material, temporal and outside us." Bonaventure, *The Soul's Journey Into God*, §1:2 in *Bonaventure*, translated by Ewert Cousins. (New York: Paulist Press, 1978), 60

to medieval writers such as Albert Magnus and Thomas Aquinas, the divine substance is thus the source for the formal principal for all created objects.[14]

The form of an object possesses only the propensity towards an active virtue, but still requires animation from God as the prime Mover.[15] According to scientific understanding, a stone thus remains ineffectual if its form is not animated through the activity of the prime Mover.[16] Thus the efficacy of the specific forms of objects was believed to be the result of a divine action or motion.

Even where medieval science taught that the powers and virtues of stones were the result of the motion of the stars, this was in no way considered a contradiction to the influence of God as the prime Mover. Medieval science taught that the stars and the celestial sphere take their motion from God as their cause even as a magnet moves iron.[17] According to the created order, the stars merely mediate Divine influence upon the lower rungs of creation, thus connecting the powers and influence of the material composition of stones to the activity of the divine essence as the prime Mover. In this way, scholastic theology explained God as the efficient cause of an object's virtues.

'Non-theological' virtues were likewise included as being of divine origin according to the endorsement given in the introductory prologues of the lapidary texts.

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[14] Albert Magnus, *De mineral.*, I.i.8. Wyckoff, 30. Also Thomas Aquinas, "Non solum autem a Deo est omnis motio sicut a primo movente, sed etiam ab ipso est omnis formalis perfectio sicut a primo actu." *Summa* 1a2æ. 109, 1.

[15] "Sic igitur actio intellectus et cujuscumque entis creati dependet a Deo quantum ad duo: uno mode inquantum ab ipso havet formam, per quam agit; alio modo inquantum ab ipso movetur ad agendum." *Summa* 1a2æ. 109, 1.

[16] Albert Magnus, *De mineral.* II.i.4. Wyckoff, 65-66.

[17] Michael Scot offers this view where God is understood to be above the stars, which by their motion influence the world below just as a magnet does iron, not as causes but as signs. HMES II: 316-17. He further taught that stars ruled and moved not by spirits or angels but by divine virtues

Thus while God may have his favourite stones as mentioned in the Biblical text, His influence and virtue was not limited to them or to virtues which we would consider specifically 'theological'[18] in nature. This is easily seen with the frequent assertion that the power of stones is of divine origin scattered throughout the various lapidaries, as in the case of *Daumounde* in the London,[19] North Midland,[20] and Peterborough[21] lapidaries. The divine character of lapidary virtues spills out of its familiar territory into day-to-day concerns of health and daily living.

Jesus Christ the Cornerstone

As noted by Albert Magnus, the virtues of stones could vary by degrees according to the 'mortality' of the form and the specific composition and mixture of the material substance of the stone.[22] This observation was further interpreted within the Christian thought of the Middle Ages. The clearest exposition is that of Thomas of Cantimpré. He notes that stones too suffer from the effects of original sin. Prior to Adam's transgression the cosmos was characterized by a balance of the elements and humors. Through Adam's transgression, however, this original balance was disrupted which resulted in the tyranny of the passions within humanity as well as suffering and struggle of illness and disease within the world. Just as the natural virtues of humanity are obscured through the effects of sin, argues Thomas, so too, the virtues and powers of stones are obscured. But just as God has provided a means of healing for humanity through the sacraments of the Church,

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through which they influenced and governed the world below in obedience to their Creator. HMES II: 322-23.

[18] That is, 'theology' in the modern understanding of the discipline.

[19] §17, [Bodl., Douce 291] EML, 30.

[20] §17, [Bodl., Add. A 106] EML, 50.

[21] §59, [Peterborough, Cathedral 33] EML, 83.

so too stones may be consecrated thus restoring their natural powers for the benefit of humanity. His rite of consecration is significant since it encapsulates a theology of stones. He records the rite as follows:

> First the stones are wrapped in a white linen and placed on the altar after the holy mass, after which a mass priest still wearing his vestments recites a blessing beginning:
>
> The Lord be with you. Let us pray:
>
> God, almighty Father, who has shown Your virtue to all through certain insensible creatures, who bid Your servant Moses among other holy vestments to adorn himself with twelve precious stones as a token of judgment, and also showed the Evangelist John the heavenly city of Jerusalem eternally constructed of the virtues which these same stones typify, we humbly beseech your Majesty to deign to consecrate and sanctify these stones by the sanctification and invocation of your Name, that they may be sanctified and consecrated, and may recover the efficacious virtues with which the experience of wise men proves You to have endowed them, so that whatever persons may wear them, may experience Your virtue present through them and may deserve to receive the gifts of Your grace and protection of Your virtue, through Jesus, Your Son, in whom all sanctification consists, who lives and reigns with You, one God for all ages of ages. Amen.[23]

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[22] Albert Magnus, *De mineral.*, II.i.4. Wyckoff, 66-67.

[23] For the translation see HMES II: 391. "§LXXI. Quomodo lapides perdunt et recuperavnt virtutes naturals a deo inditas. Sicut liber qui continet veterum narrations, omnis creatura in peccato primi hominis corrupta est, maxime autem lapides pretiosi, qui ad curam humai generis sicut herbe et multa alia creata sunt. Sed et in ipsis virtutibus, que in eis post peccatum primi hominis remanserunt, per attactum et usum inmundorum hominum per peccata sepius lapides corrumpuntur. Tamen sicut homo baptismate et penitentia reparatur, ut ad statum prime creationis redire possit, sic lapides pretiosi consecrationis sanctificatione ad virtutum efficacias reparantur. Et hic modus sanctificationis et consecrationis, ut in eodem libro scriptum invenimus: Primo mittendi sunt lapides in panno lineo et ponendi super altare usque post missas sacras, sique sacerdo nondum exutus vertibus sacris dicat benedictionem, premisso 'Dominus vobiscum. Oremus'. | Oratio et benedictio ad sactificandum lapides: Deus omnipoten, pater, qui etiam per quasdam insensibiles creaturas virtutem tuam omnibus ostendisti, qui moysi famul tuo inter cetera vestimenta sacerdotalia rationale iudicii duodecim lapidibus pretiosis adornari precepisti necnon et Iohanni evangeliste celestem civitatem Ierusalem virtutibus eosdem lapides significantibus construendam eternaliter ostendisti: maiestatem tuam himiliter deprecamur, ut hos lapides consecrare et sanctificare digneris per sanctificationem et invocationem nominis tui, ut sint sanctificati et consecrati et recipiant effectum virtutum, quas eis te dedisse sapientium experiential comprobavit, ut quicumque illos super tutlam virtutis accipere mereatur. Per Iesum Christum, filium tuum, in quo omnis sanctificatio consistit, qui tecum vivit et regnat deus per omnia secula seculorum. Amen." *De Lapidibus Pretiosis et eorum Virtutibus*, §55:1-25 in Thomas Contimpratensis, *Liber De Natura Rerum,* Editio Princeps Secundum codices manuscriptor. Teil

A number of points can be taken from this collect. The first is the belief that God shows His virtues through the physical aspect of creation with particular reference to stones. The virtues of stones are unambiguously identified as belonging to God. This however, has already been noted in the lapidaries that state that the virtues are from God and the scientific writers who teach that the material, form and efficacy of the stones are all of a divine origin. Secondly, the comment in relation to the heavenly city of Jerusalem also suggests that the virtues reflected in stones form the foundation of blessedness in the heavenly kingdom. Third, the rite specifically bids for the 'sanctification' of the stones that their virtues may be fortified for the benefit of humanity—"so that whatever persons may wear them, may experience Your virtue present through them." Tied to this point, the collect clearly reflects the belief that stones mediate divine virtue. This divine virtue is explained as including "gifts of Your grace and protection" which, of course, are prayed for and implicitly granted "through Jesus, Your Son, in whom all sanctification consists."[24] This last connection to Christology is particularly interesting, for as the collect suggests, the virtues of stones are directly tied to Jesus Christ 'in whom is all sanctification.'

This Christological connection is not limited to Thomas's rite of blessing for stones but is also found reflected elsewhere in the literature of the time. Richardoune's late

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I: Text. (Berlin: Walter De Gruyter, 1973), 373-374. Interestingly, this rite for the consecration of stones is the only such liturgical rite recorded in the whole of Thomas's encyclopedia. This reflects the importance in which stones were held in the religious thinking of the time. Thomas's rite of consecration also appears appended to a number of vernacular lapidary texts as well. See *St. Florianer Steinbuch* in Lambel, 124-125 and Evans, 64-67. For references to later similar rites of consecration for stones see Kunz, 45.

[24] Even though this reading is not according to the strict punctuation of the written text of the collect, the oral context of liturgical celebrations must be kept in mind. The public reading of this

fifteenth-century Middle English "Hymn of Christ the true stone vpon the cross"[25] reflects a similar understanding that the virtues of stones are rooted in the person of Jesus Christ. Richardoune expounds and praises the manifold virtues distributed among the various stones found in creation but concludes that the "vertue most p*ar*fite"[26] is found in *Christus lapis*[27] the cornerstone.[28] From Him flows all virtue and upon Him is built the entire salvation of humanity. According to Richardoune, the most perfect virtue, however, is divine love,[29] and he further asserts that this divine love should direct all mortal activity.[30] This divine love, he teaches, is communicated in Jesus Christ.[31]

In her Antiphon *O splendidissima gemma*,[32] Hildegard von Bingen further expounds a mariological connection to the virtue of stones. She calls Mary the "most

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collect would have allowed such an interpretation for the hearer – connecting the virtues of stones to the sanctification offered through Jesus Christ.

[25] *Richardoune's verses* [B.M. Addit. 34360], EML, 60-62.

[26] Ibid., l. 47 in EML, 61.

[27] Ibid., l. 28 in EML, ibid..

[28] Ibid., l. 49 in EML, ibid.. Umberto Eco comments that "Christ and His divinity were symbolized by a vast number and variety of creatures, each signifying His presence in a different place." Umberto Eco, *Art and Beauty in the Middle Ages*, translated by Hugh Bredin (New Haven: Yale University Press, 1986), 56.

[29] "Suche stones of vertue most co*m*mende I | As swagis Ire and staunchis enmyte, | And love refourm*es*, and hath the victory, | In creatures resonable co*m*mendid*e* to be; | Of a stone most p*re*cious now late see, | In thought, word*e* and dede knytt all in oone, | Lapis x*ris*tus, a passing stidefast stone." ll. 23-28 in EML, ibid.. Compare Vauchez's comments (*Laity*, 18-19) that God was popularly conceived of as the power of love.

[30] "Go, litel cedule, and*e* do thy besy cure | Al variaunce to avoyde and doublenesse. | To e*u*e*ry* p*er*sone do parfite plesure, | Groundede in love with p*ar*fite stidefastnesse. | Such love groundede in trowth and stabilnesse | In thought, worde and dede knyt al in oone, | Super hanc petram, a verray stidefast stone. Amen." ll. 50-56 in EML, 62 Cf. Schipperges, 370.

[31] ll. 55-56 in EML, ibid.. See previous footnote for text.

[32] "Most splendid of gemstones! | Bright beauty of the sun! | He poured upon you, | as a leaping fountain from the heart of the Father, | His unique and only Word, | through whom he made the primal matter of the world | which Eve the woman threw into confusion. | In your image, Father, this Word created the human being. | Therefore, Mary, you are the bright matter | through which the Word breathed all the virtues forth, | as once he led forth, in the primal matter of the world, the whole of creation." Translated by Mark Atherton in *Hildegard of Bingen: Selected Writings*

splendid of gemstones" upon whom the heavenly Father poured out "His unique and only Word" and through whom also the world was made. She holds the Virgin Mary in contrast to the matriarch Eve through whose disobedience "the primal matter of the world" was "[thrown] into confusion." She comments further that humanity was created in the image of the Word – namely Mary's Son Jesus Christ. Therefore, Hildegard sings that Mary is the "bright matter" through which the Word breathed forth again all the virtues in possession of which the primal and uncorrupted creation was made. Mary is presented as the 'gemstone' that contains and communicates the virtue and power of Jesus Christ to the world.

Aside from the obvious difference that Mary rather than Jesus is identified with stones, the Christological implications of Hildegard's antiphon are fascinating. While Hildegard does not directly equate Jesus Christ with gemstones, she does equate Him with the virtues inhering within them. And further, while Mary may be the formal cause of the world's recapitulation, Jesus Christ is specifically identified as the efficient cause operant through her. By analogy, Hildegard suggests that while stones may possess virtue by their formal principle, the actual working of the virtue of particular stones belongs to Jesus Christ – the Word – inhering and working within them as their efficient cause.

The implications of Hildegard's teaching in this antiphon are quite profound for the understanding of medieval stone-lore in relation to the sacramental theology of the medieval Church. The close parallel between accepted definition of a sacrament given by Augustine as "visible Word"[33] and Hildegard's conception of the virtue of stones as

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(Penguin Books, 2001), 117. Atherton notes that "Adam of St. Victor uses the same image of the gem in a sequence for Christmas." Ibid., 223 note 5.

[33] Augustine of Hippo, *Tractates on John 80, 3.* PL 35:1840. Cf. *Summa* 3a. 60, 1.

animated by the inhering power of the Word is too bold to be overlooked. While it is not clear whether Hildegard had intended to place stones and sacraments on the same level, the parallel in her antiphon is certainly intriguing. What is clear is that within Hildegard's world of thought and belief, the power inhering within nature is that of God.[34]

Hildegard also offers some comments discussing the relationship of the devil and the virtues of stones. "They terrify the devil," she explains

> who hates and despises them because he remembered that their beauty appeared in him before he fell from the glory which God had given him, and also because some precious stones are created from the fire and energy in which he himself has his punishments. It was in fact by fire that the devil was defeated, through God's will, and he fell into fire, just as he is also defeated by the fire of the Holy Spirit whenever people are rescued from the devil's jaws through the inspiring breath of the Holy Spirit.[35]

Several lines later she elaborates further writing

> God in fact gave the first angel beauty as of precious stones which Lucifer saw shining brightly in the divine mirror, and from these he received his knowledge, and in them he realized that God wished to carry out many marvels. Then his mind was raised in pride, because the beauty of the stones, which was in him, was shining out in God. He thought he could be the equal of God and more, and so his brightness was extinguished.[36]

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[34] "There are three powers in a stone and three in a flame and three in a word. In a stone there is moist greenness, palpable strength and red-burning fire ... Its moist greenness signifies the Father, who will never dry out or reach a limit to his power; its palpable strength signifies the Son, since he was born of the Virgin and could be touched and grasped; its red-burning fire signifies the Spirit, who is the fire and illumination of the hearts of the faithful." *Scivias* II.2.5 in Atherton, 20.

[35] "Sed dyabolus pretiosos lapides abhorret et odit et dedignatur, quia reminiscitur, quod decor eorum in ipsis apparuit, antequam de gloria sibi a Deo data corrueret, et quia etiam quidam pretiosi lapides ab igne gignuntur, in quo ipse pœnas suas habet. Nam per voluntatem Dei per ignem victus est et in ignem corruit, sicut etiam per ignem Spiritus sancti vincitur, cum hominess per primam inspirationem sancti Spiritus de faucibus ejus eruuntur." Hildegard of Bingen, *De Lapidibus* PL 197:1247. Translation by Atherton, 106.

[36] "Nam Deus primum angelum quasi pretiosis lapidibus decoraverat, quos idem Lucifer in speculo Divinitatis splendere videns, et inde scientiam accepit, et in eis cognovit quod Deus multa mirabilia facere vulit tunc mens ejus elevata est, quia decor lapidum qui in ipso erat in Deo fulgebat, putans quod ipse æqualia et plura Deo posset, et ideo splendor ejus extinctus est." Hildegard of Bingen, *De Lapidibus* PL 197:1249-1250. Translation by Atherton, 108.

Hildegard here suggests that the devil's terror of stones is an example of *exemplarism* gone bad. Taking the name *Lucifer* which means 'light-bearer' and contrasting it with the fire of divinity which is reflected throughout the vestiges of creation, she explains the devil's terror of precious stones "which are made out of fire and water,"[37] as a passionate envy and anger borne out his prideful desire to possess the divine beauty autonomously within himself. To add insult to injury, Hildegard relates that "God allowed neither the beauty nor the virtue of the stones to perish, for he wished them to remain in the earth in honour and blessing, and for medicinal use."[38] She explains, "it is the nature of precious stones to seek the honest and useful and reject the evil and false in human beings, in the same way that the virtues throw off the vices, and in the same way that it is impossible for the vices to act in conjunction with the virtues."[39] Thus the divine fire reflected in precious stones serves not only as a reminder to the devil of the glory which he lost, but also serves humanity to lead them to righteousness through the burning power and fire of the Holy Spirit present within them. Here Hildegard specifically connects the virtue of stones to the fire and inspiring breath of the Holy Spirit which, she explains, are preserved within the created world for the providential care of humanity.[40] This providential care

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[37] "Et sie pretiosi lapides ab igne et ab aqua gignuntur." Hildegard of Bingen, *De Lapidibus*, PL 197:1248. Translation by Atherton, 107.

[38] "Sic Deus nec decorum nec virtutem pretiosorum lapidum istorum perire dimisit, sed voluit ut in terra essent in honore et benedictione, et ad medicinam." Hildegard of Bingen, *De Lapidibus*, PL 197:1250. Translation by Atherton, 108.

[39] "Quoniam natura eorumdem pretiosorum lapidum quæque honesta et utilia qua rit, et prava et mala hominum respuit, quemadmoduns virtutes vitia abjiciunt, et ut vitia cum virtutibus operari non possunt." Hildegard of Bingen, *De Lapidibus*, PL 197:1250. Translation by Atherton, 107.

[40] Cf. "It was in fact by fire that the devil was defeated, through God's will, and he fell into fire, just as he is also defeated by the fire of the Holy Spirit whenever people are rescued from the devil's jaws through the inspiring breath of the Holy Spirit." PL 197:1247. Translation by Atherton, 106.

undoubtedly includes the protection and defense of fallen humanity from the wicked wiles and schemes of the devil.

Stones and Sacraments

From the above discussion, it is clear that the virtues of stones were tied conceptually to the divine power and working of God. Close parallels have also emerged between the virtues of stones and the grace communicated by Christ in the sacraments. An investigation into the 'sacramental' quality of the virtues of stones as understood in the Middle Ages is thus in order, keeping in mind that the precise definition and enumeration of the sacraments was in flux during this period of the Church in Europe,[41] and also that the precise conclusion on the matter is not as interesting as the discussion itself.

In his *Summa*, Thomas Aquinas marks a distinction between a sacrament and medicament. The difference between the two is that a sacrament is a visible sign that conveys a sanctifying grace to individual just as a medicament is the vessel of healing virtue for the body.[42] Yet the two are not as distinct as it may appear, but rather complement one another in the religious life of humanity. Health was considered a

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[41] See David N. Bell, *Many Mansions: An Introduction to the Development and Diversity of Medieval Theology* (Kalamazoo: Cistercian Publications, 1996), 305-309. Also John Norman Davidson Kelly, *Early Christian Doctrines,* revised edition (San Francisco: Harper, 1978), 423-24.

[42] "Ad primum ergo dicendum quod, quia medicina se habet ut causa effectiva sanitatis, inde est quod omnia denominata a medicina dicuntur per ordinem ad unum primum agens: et per hoc medicamentum importat causalitatem quandam. Sed sanctitas, a qua denominatur sacramentum, non significatur per modum causæ efficientis, sed magis per modum causæ formalis vel finalis. Et ideo non oportet quod sacramentum semper importet causalitatem." *Summa* 3a. 60, 1. And again "secundum quod nunc de sacramentis loquimur, quod est signum rei sacræ inquantum est sanctificans homines." *Summa* 3a. 60, 2.

religious concern and taken up by the religious communities.[43] The question can thus be raised as to the relationship between natural virtue—particularly as it relates to stones—and divine grace.

As noted, the virtue of stones is of divine origin on account both of their material creation, formal, and efficient causes. One can ask whether lapidary virtues could have been considered of the same species as divine grace. According to Aquinas, grace is the action of God to restore humanity to himself. It is borne of God's mercy and works towards the restoration of the divine image and likeness within humanity. Image is understood in terms of the formal principle of humanity whereas likeness is defined in terms of effectuality of that image. Thus the grace of God may be divided into two different species. The first is a forming grace through which the *imago dei* is restored within humanity. Forming grace is variously known and translated as a sanctifying grace. According to Aquinas, sanctifying grace is communicated to humanity in the sacraments—particularly in baptism in which God's own character is impressed upon the individual.[44]

The second species of grace of which Aquinas speaks he calls a freely bestowed grace that reflects the active dimension of God's existence. Freely bestowed grace enlightens the mind of an individual to act in ways beneficial to another. Moreover, it is that which enables humanity to exceed the bounds of natural capacity. It is through freely

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[43] Benedict prescribed the care for the sick as one of the main duties of the monastic community. See Timothy P. Daalman "The Medical World of Hildegard of Bingen," *American Benedictine Review* 44:3 (1993), 280.

[44] *Summa* 3a. 63, 1. The rite of blessing for stones as recorded by Thomas of Cantimpré clearly states that stones could also be objects of sanctifying grace. His consecration rite aspires to a sanctification or restoration of the stone's form in order that its efficacy might be restored. Even though Aquinas would not admit stones as media for sanctifying grace. The question can still be asked, however, that if stones can be objects of a *'sanctifying grace,'* what would prevent them from communicating it to others?

bestowed grace that the human intellect is activated and enabled to understand both natural and divine matters and subsequently apply them for the benefit of others.[45] Aquinas includes the graces of healing, prophecy and discernment of spirits, all of which qualities are seen to be active in the virtues of stones.[46] The final cause of freely bestowed grace is that "people are made more responsive to faith by bestowal of bodily health obtained by virtue of faith."[47] While Aquinas is speaking specifically of virtues endowed to individuals by means of faith, the same virtues are seen in the lapidaries as ascribed to the power and working of stones.

The virtues of stones were also directed toward the moral formation of humanity—a goal commonly shared with medicine and the study of the natural sciences. Marbod, for example, praises the virtues of stones for the benefit that they might offer humanity[48]—a refrain that is often repeated throughout the vernacular lapidary texts.[49] Particularly in the later Christian lapidaries, the claim that stones are able to exert a formative influence on the morality and character of the individual needs to be taken into consideration. Whereas the distinction between sanctifying and freely bestowed grace may

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[45] *Summa* 1a2æ. 109, 1.

[46] *Summa* 1a2æ. 111, 4. Cf. from Volmar's *Steinbuoch* in Lambel, *dîamant* (l. 325) which confers on its wearer both luck and health, Lambel, 12; or § *Haematitis* (ll. 931-934) in the Anglo-Norman *Alphabetical Lapidary* to through which God grants health to all people. ANL, 234; Marbod's §44 *hyena* which when carried under the tongue, bestows upon its bearer the gift of prophecy. *Marbode*, 81; of likewise §2 *Silonicus* in the *Ashmole Lapidary* [Bodl., Ashmole 1447] which grants the ability to prophcey. EML, 58; also §84 *Gerasite* of the *Peterborough Lapidary* which gives it bearer the ability to discern the thoughts of others. [Peterborough, Cathedral 33], EML, 91. Additional examples are scattered throughout the lapidaries.

[47] "ad quam aliquis magis promptus redditur per beneficium corporalis sanitatis, quam per fidei virtutem assequitur." *Summa* 1a2æ. 111, 4.3.

[48] *De lapidibus*, ll. 15-16. *Marbode*, 34.

[49] This refrain is repeated throughout the Anglo-Norman Lapidaries which are, for the most part, translations into French and paraphrases of Marbod's *De lapidibus*. See ANL, 29, 72-3, 118. Also the *Peterborough Lapidary* [Peterborough, Cathedral 33], EML, 64 and Volmar's *Steinbuoch*, Lambel, 3-5.

be clear-cut in Aquinas's thought, it is not so clear which species of grace the lapidaries themselves claim the stones to communicate. The London lapidary makes the claim regarding *Iaspes* that "who-so bereth hit he shal lede clene life;" that it is good against the temptations of "fendes, of Iewes, & sarazins;" that it signifies the cardinal virtues of faith, hope, and love; and that anyone who sees green *Iaspes* during the day will have their mind drawn back to faith in Jesus Christ.[50] According to the lapidaries, some stones were believed to exert an influence upon the moral character of the individual and could thus be understood to have a 'sanctifying' effect upon him in a manner similar to the Church-sanctioned 'sacraments.' Mention could also be made of the contemplative and theological virtues that were ascribed to individual stones within the lapidary literature.

Furthermore, in a manner parallel to the sacraments, the significance of stones was closely tied also to salvation history.[51] In discussing the nature of the sacraments, the Blackfriar editor of Aquinas's *Summa* writes that "sacraments are not merely signs but symbols, and as such they bear not one, but several meanings. They signify the past event of Christ's Passion as the efficient cause of the grace which actually informs and is contained in them (their formal cause), and which is aimed at bringing man to final beatitude (their final cause)."[52] Interestingly, the virtue of stones (efficient cause) flowed in the same way from its symbolic significance tied to events in the history of salvation[53]

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[50] §6, [Bodl., Douce 291] in EML, 23-24.

[51] This parallels the medieval fascination with the events of the life of Christ tied closely to the pilgrimage sites of the Holy Land, reflected also in the development of the "way of the cross" as a substitutionary devotional rite of pilgrimage for those who were not able to forsake family to retrace the footsteps of Christ in imitation of His Passion.

[52] *Summa* vol. 56 pp. 10-11 note a. Cf. Cornelius Ernst, "Acts of Christ: Signs of Faith," in *Sacraments. Papers of the Maynooth Union Summer School*, edited by D. O'Callaghan (Dublin, 1964), 56-75.

[53] Or, to mythical origins, in the case of the non-canonical stones.

through which the stone's character is established (formal cause) which is directed towards the physical and moral formation of humanity (final cause).[54]

Whatever the conclusions of the scholastic theologians and hierarchs of the Church may have been, it must be remembered that the piety of the laity was often very different. "Laypeople did not clearly perceive the distinction, established by the theologians in the course of the twelfth century, between the sacraments and the sacramentals."[55] Thus what was commonly believed and understood is that stones possessed power and that this power was from God.

The Catechetical Use of Stones

Emerging on the scene roughly at the same time as the catechetical renewal within the European Church,[56] the Christian lapidaries may have served double-duty as popular lay-catechisms. Beginning with the Latin Christian lapidaries ascribed to Marbod, a primary concern appears to be that of moral formation. In the *Lapidary of 12 Stones in Verse*,[57] the author calls his readers to emulate the moral virtues reflected in the

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[54] This contradicts Albert who writes that for stones the moral and final cause are one and the same. According to the consensus of other medieval writers, however, stones contribute to the final cause of humanity rather than having one inherently for themselves. Eco, 36, comments that "the Medievals gave moral virtues an aesthetic foundation," thus linking the moral formation of humanity to the medieval conception of man as a microcosmic exemplar of the Divine.

[55] *Laity*, 91.

[56] Archbishop John Peckham, for example, called the 1281 Council of Lambeth to address the need for better education among parish clergy in order that they might rightly teach and lead their flock. The thirteenth to the fifteenth century also saw the rise of a whole host of vernacular forms of devotional literature including devotional tracts, morality plays like the thirteenth century *The Harrowing of Hell* and the fifteenth century *Macro Plays*, vernacular sermons offered by mendicant preachers, as well as vernacular prayer books and catechisms. See Thomas Frederick Simmons & Henry Edward Nolloth, eds., *The Lay Folks' Catechism*, EETS no. 118 (London: Kegan Paul, Trench, Trűbner & co., 1901), xii. Also the fifteenth century *The Prymer or Lay Folks' Prayer Book*, edited by Henry Littlehales, EETS, Original Series, Nos., 105, 109 (New York: Kraus Reprint Co., 1973).

[57] PL 171:1771-1772. Latin text and translation are also provided in *Marbode*, 119-121

foundation to the heavenly city of Jerusalem for "whosoever abounds in these [virtues] will be able to be a fellow citizen."[58] In this poem, Jasper represents the greenness of faith which resists the devil; Sapphire, the hearts of simple men waiting with hope; Chalcedony which is the image of fire, represents charitable service done in secret; Emerald, the purest faith which knows never to forsake true piety; Sardonyx discloses the inner man – its black representing the baseness of fallen human nature, white symbolizing chastity, and red reflecting martyrdom which is the crown of integrity; Sard represents the martyrs and also the mystery of the cross; Chrysolite reflects the ways of men of perfect wisdom and is also the light of seven-fold grace;[59] Beryl symbolized the prayer of those whose minds are sagacious by nature; Topaz shows the steadfast duty of the contemplative life; Chrysophras reflects unity and perfect charity; Jacinth signifies the angelic life endowed with the capacity for discernment; and lastly Amethyst, which represents the lowly who die with Christ.[60] In the same way the *Christian Symbolic Lapidary in Prose* presents a litany of moral virtues providing also specific references to passages of Scripture.[61]

The catechetical content of the later vernacular Christian lapidaries expanded to include doctrinal and contemplative reflections in relation to the canonical stones. The Biblical stones of the London lapidary,[62] for example, provide a comprehensive treatment of Christian doctrine as well as echoed the moral piety already presented in the earlier Latin texts. Doctrinal points referenced in the London lapidary include: the creation of

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[58] "Quicunque his floruerit | Concivis esse poterit." ll. 83-84. See *Marbode*, 121.
[59] 'Seven-fold grace' because *Chrysolite* appears as the *seventh* stone in the foundation of the heavenly city.
[60] Latin text with translation found in *Marbode*, 119-121. Cf. also the *Christian Symbolic Lapidary in Prose* ascribed to Marbod. See *Marbode*, 125-129.
[61] See the *Christian Symbolic Lapidary in Prose* ascribed to Marbod. *Marbode*, 125-129.
[62] [Bodl., Douce 291] in EML 17-30. The following references will be to this manuscript.

humanity out of the earth on the sixth day of creation, the sin (original sin) of Adam, and the atoning shedding of Jesus blood of the sixth day of the week (Good Friday);[63] life after death, the nine orders of angelic hosts, and the royal equality (kings and queens) of all the redeemed;[64] the great greenhead (vitality) of God, the faith of the Holy Trinity, the faith of the four evangelists, the vitality (greenness) of faith, singular devotion to Jesus Christ, and the spiritual warfare of Christian people against the forces of evil;[65] the second law (i.e.: that of Jesus Christ), the call to daily repentance (accounting of deeds), and the final return of Jesus Christ who is the light of the world;[66] the virtue and reality of Christian hope and the bliss of heaven;[67] the host of pious but uneducated Christians,[68] protection from temptations to apostasy, and the cardinal Christian virtues of faith, hope, and charity for which every Christian should strive;[69] order in the Church (the good preachers of the Gospel);[70] sorrow in this world on account of our sinfulness, the highness of the Trinity, and the Christians which bear the fruit of good works on account of the virtues of the Triune God at work within them, the universal teaching of the Gospel which Jesus Christ

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[63] §1 *Sardes*. The reference to the number six because *Sardes* is the sixth stone listed in the foundation of the heavenly City.

[64] §2 *Topace*. The second theological virtue because *Topace* is the second stone in the breastplate of Aaron. The nine orders of angels are represented here because *Topace* is the ninth stone in the foundation of the heavenly City.

[65] §3 *Emeraude*, cf. also §11 *Onicles* in regards to the four evangelists. This second reference unfolds a connection to the four images for the evangelists (man, lion, eagle, and ox) on the basis of the four colours of the *Onicle* stones. *Onicles* is also listed as having been placed in the fourth corner of Aaron's breastplate further adding to this connection.

[66] §4 *Rubie*. *Rubie* symbolizes the second law (of Jesus Christ) because it is the 'first stone in the second corner' of Aaron's breastplate.

[67] §5 *Safire*. *Safire* represents the second cardinal virtus of 'hope' because it is the second stone in the foundation of the heavenly City.

[68] Perhaps included to give a 'spiritual' status to those outside of the hierarchy of the Church. If nothing else, this phrase would give hope to those who had a sincere belief and desire for salvation even if they were not formally educated.

[69] §6 *Iaspes*. *Iaspes* is the first stone in the foundation of the heavenly City, and so it represents the foundation of authentic Christian living, namely the three cardinal virtues.

and John the Baptist preached to the people;[71] the purple robes in which Jesus was clothed at His death, the scorning of the Jewish people, the lordship of angels, and the death of martyrs;[72] the savour (saltiness) of those who live wisely on earth,[73] the prophecies and miracles of Jesus Christ, the virtue of preaching in the Church, the gift of the Holy Spirit, and the ten Commandments as a divine rule for living;[74] the blackness of sin, the weakness of human flesh on account of it, and the charity of God through Jesus Christ;[75] the first preachers of the holy Church that preached the Gospel of Jesus Christ (the twelve Apostles, and the holy age of the resurrection);[76] the joy of the second coming, and a remembrance of those in travail;[77] remembrance of and presumably also respect for those good men that lead sinful people to lives of good works;[78] and a remembrance of those who suffer great pains in their bodies and despise their sinful flesh out of a love for God.[79] The only item of faith obviously missing from this list is a reference to the ecclesial sacraments, but given the widespread belief in the 'sacramental' quality to all of creation,

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[70] §7 *Ligure*.
[71] §8 *Accate*.
[72] §9 *Amatist*.
[73] Cf. Matthew 5:13.
[74] §10 *Crisolide*. *Crisolide* presents a unique exception to the rule. The Ten Commandments are signified, not because of a biblical precedent, but because *Crisolide* is the tenth stone listed in the canonical stone-list.
[75] §11 *Onicles*.
[76] §12 *Berill* is used to signify the age of the resurrection because it is listed as the eighth stone in the foundation of the heavenly City of Jerusalem. While God created the world in seven days, the early Christians awaited the 'eighth day,' which was considered also to be the first day of eternity. Because of its location in the foundation of Jerusalem, *Berill* was understood to signify this 'eighth day' of eternity.
[77] §14 *Crisophas*.
[78] §15 *Calcedoyne*.
[79] §16 *Sardoynes*. This would undoubtedly have included not only martyrs, the 'saints' of the crusades, but also those living in monastic habit.

such an explicit reference for the purpose of catechetical formation was probably considered unnecessary.[80]

In addition to the moral and doctrinal teachings of the Christian lapidaries, a number of contemplative virtues are also included. *Topace* draws one to the beatific vision of the face of God;[81] *Emeraude* encourages a singular devotion to Jesus Christ in light of the Christian's spiritual warfare against devilish forces;[82] *Rubie* increases one's love for Jesus Christ, encourages clean living and allows the possessor to "beholde *þe* veray lighte of Ihesu Xrist" in that stone;[83] *Safire* causes its bearer to be more mindful of the bliss of heaven as well as encouraging a better knowledge of himself;[84] green *Iaspes* makes one mindful of the faith of Jesus Christ;[85] and *Baleys* has the power to put away idle thoughts and sorrows from the one who bears it as well as keep him from great lechery.[86]

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[80] While an argument from silence is always dangerous, this omission does suggest an equation of sorts between the ecclesial sacraments and the virtues believed to be present in and communicated through creation. The Anglo-Norman *Alphabetical Lapidary* presents a similar detailed list of seventy-eight stones, their virtues, and doctrinal significations. ANL, 204-259.

[81] "All *þei* | *þat* beholden my stones with sobrete more turne her sight vp to topace, *þat* signifieth *þat* we alle shulde beholde *þat* life wherby a man myght se god in *þe* face." §2 *Topace*.

[82] "Þe grenes signifieth *þe* grete grenehed *þt* may not flitten, *þt þe* gode patriarches & prophetes haden so grete blisse of heuene all *þei þt* ben in *þis* grenehede in *þe* feith as seynt Iohn was, *þt* seith *þat þei þat* haue not but oon | eye, *þat* is Ihesu Xrist. The aropiles *þat* comen to seche the emeraudes armed *þat* feighten with *þe* gryffons, *þei* ben veray cristen men; the gryffons signifien *þe* deueles to who thei feighten ayeins. All thise thynges shulde *þei* haue in mynde *þat* beren emeraudes." §3 *Emeraude*.

[83] §4 *Rubie*.

[84] "& who *þat* saphire beholdeth he shulde be in memoire of *þe* blisse of heuen, & in gode memoire of hym-selfe." §5 *Safire*.

[85] "& he *þat* grene Iaspe beholdeth ayeins day, of *þe* feith of Ihesu Xrist he shulde haue mind." §6 *Iaspes*.

[86] "The bokes tellen vs *þat* who-so berith veray baleys, hit shal put fro man idel thoughtes & sorow, & kepeth a man fro grete lecherie." §13 *Baleys*. The *Anglo-Norman Alphabetical Lapidary* presents a similar detailed list of seventy-eight stones, their virtues, and doctrinal significations. ANL, 204-259.

Stones and the Contemplative Life

A contemplative use of material objects was a common practice in the Middle Ages as seen in the cult surrounding sacred relics. Following the doctrine of *exemplarism*, creation was understood as a mask through which the splendor and glory of God could be seen and contemplated.

> Every creature receives and transmits divine illumination according to its capacity, and beings as well as things are ordered in a hierarchy according to their degree of participation in the divine essence. The human soul, enveloped in the opaqueness of matter, longs to return to God. It can succeed in doing so only through visible things which, at succeeding levels of the hierarchy, reflect His light better and better. Through created reality, the mind can thus rise again to the uncreated.[87]

In his treatise *The Soul's Journey Into God*, Bonaventure explains that "In order to contemplate the First Principle, who is most spiritual, eternal and above us, we must pass through his vestiges, which are material, temporal and outside us."[88] This is possible because of "the power, wisdom and goodness of the triune God, who by his power, presence and essence exists uncircumscribed in all things."[89] Since "the Creator's supreme power, wisdom and benevolence shine forth in created things ... from these, as from a vestige, we can rise to knowledge of the immense power, wisdom and goodness of the Creator."[90] A contemplation of physical objects could thus lead a person to the ultimate

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[87] *SpMW*, 151. Eco relates how medieval man would "[discern] in the concrete object an ontological reflection of, and participation in, the being and power of God." Eco, 15.
[88] Bonaventure, *The Soul's Journey Into God*, §1:2, p. 60.
[89] Ibid., §1:14, p. 65.
[90] Ibid., §1:10, 11, pp. 63, 64. Cf. also the comments of Hildegard of Bingen "God, who created all things in his will, made them so that his name would be known and honoured. Through his creation he not only makes known visible and temporal things but also invisible and eternal things." *Scivias* I.3.1, trans. by Atherton, 91

contemplation of God Himself.[91] Building on the Pseudo-Dionysian concept of the divine hierarchies, Bonaventure explains that creation itself takes on a symbolic and even a sacramental character.[92] As M.D. Chenu comments regarding this understanding from the Middle Ages that "even before men contemplate it, the sacramental universe is filled with God."[93] While this approach to creation is certainly characteristic of Franciscan piety,[94]

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[91] Coomaraswamy describes this medieval way of seeing the world writing "His reasoning is by analogy, or in other words, by means of an 'adequate symbolism.' As a person rather than an animal, he knows immortal through mortal things." Ananda K. Coomaraswamy, "The Christian and Oriental, or True, Philosophy of Art," in *Christian & Oriental Philosophy of Art* (New York: Dover Publications, 1956), 55 note 23.

[92] "The creatures of the sense world signify the invisible attributes of God, partly because God is the origin, exemplar and end of every creature, and every effect is the sign of its cause, the exemplification of its exemplar and the path to the end, to which it leads: partly by their own proper representation, partly from prophetic prefiguration, partly from angelic operation, partly from additional institution. For every creature is by its nature a kind of effigy and likeness of the eternal Wisdom, but especially one which in the book of Scripture has been elevated through the spirit of prophecy to prefigure spiritual things; and more especially, those creatures in whose likeness God wished to appear through the ministry of angels; and most especially, a creature which God willed to institute as a symbol and which has the character not only of a sign in the general sense but also of a sacrament." Bonaventure, §2:12, pp. 76-77. It should be noted that the ascription of 'sacramental' qualities to stones is divided along Pseudo-Dionysian lines. Whereas Aquinas defines a Sacrament kataphatically – in terms of the grace that it communicates – Bonaventure uses a 'contemplative' or anagogical definition in relation to the ascent of the soul toward God. "The Cistercian spirit of simplicity is engraved to this day on the very stones ... Beauty and simplicity preserve the spirit from distraction and lead it to God. Beauty leads to contemplation and is a sort of sacrament of the eternal beauty of God." André Louf, *The Cistercian Way*, trans. Nivard Kinsella (Kalamazoo: Cistercian Publications, 1989), 57. Also, "[Francis of Assisi] embraced creation, believing that God did not abandon it, but that creation reflects the glory of God. This attitude to creatures took theological form in St. Bonaventure's doctrine of exemplarism, according to which all creation is seen as God's sacrament." Felix M. Podimattam, *Spirituality and Spiritualities* (Delhi: Media House, 2001), 134.

[93] M.D. Chenu, *Nature, Man, and Society in the Twelfth Century*. Translated by Jerome Taylor and Lester K. Little (Toronto: University of Toronto Press, 1997), 35.

[94] David L. Jeffry describes the sensory character of the Franciscan approach to the contemplation of nature in "Franciscan Spirituality and the Growth of Vernacular Culture," in *By Things Seen: Reference and Recognition in Medieval Thought,* edited by David L. Jeffrey. (Ottawa: University of Ottawa Press, 1979), 149-50.

such views of natural objects were wide spread, expounded also by the Benedictines,[95] and the Dominicans (the encyclopedists) as well.

One such Benedictine was the famous Suger of St. Denis who offers us a description of his own contemplative experience amidst the gems within the new Abbey which he constructed. Suger illustrates from his own experience an example of the unique contemplative and anagogical value placed on stones by a citizen of the Middle Ages. He explains that the divine light, which is disseminated throughout the celestial hierarchy, could also be used anagogically. "The process, by which the emanations of the Light Divine flow down until they are nearly drowned in matter and broken up into what looks like a meaningless welter of coarse material bodies, can always be reversed into a rise from pollution and multiplicity to purity and oneness."[96] Gems and stones were commonly used to adorn altars, reliquaries and the sacred vessels of the Mass as illustrated in the chapel of St. Denis.[97] Since the light of divinity is disseminated through material creation, when properly comprehended, it served also as a means for contemplative ascent. Suger writes, "the whole material universe becomes a big 'light' composed of countless small ones as of so many lanterns ...; every perceptible thing, man made or natural, becomes a symbol of

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[95] Hildegard of Bingen as already noted, and also Suger of St. Denis who did not hesitate to make lavish use of the physical objects through which this divine beauty was present in the world. Compare his comments that "the dull mind rises to truth through that which is material And, in seeing this light, is resurrected from its former submersion." Suger of St. Denis, *De administratione*, XXXII in Erwin Panofsky ed. and trans., *Abbot Suger on the Abbey Church of St.-Denis and its Art Treasures* (Princeton: Princeton University Press, 1964), 49.

[96] Panofsky, 19. "This *anagoge*, this upwards reference of things, was constituted precisely by their natural dynamism as symbols. The image of the transcendent was not some pleasant addition to their natures; rather, rooted in the 'dissimilar similitudes' of the hierarchical ladder, it was their very reality and reason for being." Chenu, 123.

[97] Marvin Alpheus Owings, *The Arts in the Middle English Romances* (New York: AMS Press, 1971; reprint New York: Twayne Publishers, 1952), 116-118.

that which is not perceptible, a stepping stone on the road to Heaven."[98] The light of divinity communicated through material objects enlightened the mind of the beholder, lifting them from the slime of the material world into a heavenly trance as described by the famous Suger, Abbot of the monastery of St. Denis. He recounts his experience as follows:

> Thus, when—out of my delight in the beauty of the house of God—the loveliness of the many-colored gems has called me away from external cares, and worthy meditation has induced me to reflect, transferring that which is material to that which is immaterial, on the diversity of the sacred virtues: then it seems to me that I see myself dwelling, as it were, in some strange region of the universe which neither exists entirely in the slime of the earth nor entirely in the purity of Heaven; and that, by the grace of God, I can be transported from this inferior to that higher world in an anagogical manner.[99]

Panofsky notes that Suger "describes this state, not as a psychological but as a religious experience," and that his language here echoes that of the Franciscan John the Scott.[100] Though it is true that the contemplative dimension of nature and art falls properly under the scope of medieval aesthetics and cosmology, both are tied to the doctrine of *exemplarism*.[101] It is within this conceptual framework that Suger's emphasis on the role of gems, precious metals and stones finds place.[102] Not to detract from the importance of the altar and sacred vessels and relics, the gems were used to adorn the sacred furnishings

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[98] Panofsky, 20. Suger's contemplative approach to stones is captured by Peter Kitson's comments about the Venerable Bede where he comments: "Where the Lapidary glossator was content to regard jewels as shining in themselves, Bede was concerned that his readers should see them as reflecting the glory of God." Peter Kitson, "Lapidary traditions in Anglo-Saxon England: part II, Bede's *Explanatio Apocalypsis* and related works," *Anglo-Saxon England* 12 (1983), 100.
[99] Suger of St. Denis, *De administratione*, XXXIII in Panofsky, 63-65.
[100] Panofsky, 21.
[101] "Beauty and simplicity preserve the spirit from distraction and lead it to God. Beauty leads to contemplation and is a sort of sacrament of the eternal beauty of God." Louf, loc. cit.
[102] Vauchez notes that, "in the field of art, such a concept of the relationship between the human and the divine led to the proliferation inside churches of objects made of silver and gold or adorned

in a manner that adequately manifest their importance.[103] According to Suger, however, the ultimate significance of the precious stones was in their participation in the sacred virtues and realities to which they pointed anagogically and which in return, they communicated to the world below.[104] On account of this understanding, Suger relates that the stones themselves were respected as sacred.[105]

Conclusion

While it is true that there is no theological treatise devoted exclusively to the virtues of stones within the corpus of medieval theological literature, there is enough material scattered throughout the lapidary texts and related materials from the Middle Ages to piece together a summary picture of the deliberative theological thought regarding stones and their virtues. The specific absence of a theological treatise does speak volumes in itself, however, as there was evidently no felt need to argue for or against this popular belief which was held by both the educated and the unlettered alike. Stones were

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with precious stones, which, because of their radiance, could be regarded as symbols of the virtues and help man rise to the splendor of the Creator." *SpMW*, 151.

[103] "The detractors also object that a saintly mind, a pure heart, a faithful intention ought to suffice for this sacred function; and we, too, explicitly and especially affirm that it is these that principally matter. [But] we profess that we must do homage also through the outward ornaments of sacred vessels, and to nothing in the world in an equal degree as to the service of the Holy Sacrifice, with all inner purity and with all outward splendor. For it behooves us most becomingly to service our Saviour in all things in a universal way—Him Who has not refused to provide for us in all things in a universal way and without any exception." Suger of St. Denis, *De administratione*, XXXIII in Panofsky, 67.

[104] "The symbol was the means by which one could approach mystery; it was homogeneous with mystery and not a simple epistemological sign more or less conventional in character." Chenu, ibid. Suger outlines his theory of anagogical illumination while reflecting on the doors of the central west portal to the abbey. "Whoever thou art, if thou seekest to extol the glory of these doors, | Marvel not at the gold and the expense but at the craftsmanship of the work. | Bright is the noble work; but, being nobly bright, the work | Should brighten the minds so that they may travel, through the true lights, | To the True Light where Christ is the true door. | In what manner it be inherent in this world the golden door defines: | The dull mind rises to truth through that which is material | And in seeing this light, is resurrected from its former submersion." Panofsky, 23.

interpreted in the same manner as the Christian Scriptures offering literal (physical), allegorical (symbolic of theological truths), moral (formative), and anagogical (contemplative) meanings to the people of the Middle Ages.[106] It is interesting thus to observe that the medieval discussions regarding the virtues of stones emerge, not as sterile academic debates but rather, as comments reflecting a lived spirituality and piety directly engaged in contemplation of divine realities and with the practical application of sacred powers for the benefit of humanity.

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[105] Panofsky, 101.
[106] Cf. Eco, 63.

CHAPTER SIX

VERNACULAR PIETY AS REFLECTED IN MEDIEVAL LAPIDARY TEXTS

Rosalind and Christopher Brooke write that the deliberative thought presented within the literature of any time period is limited in what it tells us about the actual religiosity of the common folk.

> If we were to put all the books which were written in the 12th century into a single library, we should find that a great preponderance represented the studies and the interest and outlook of the learned: that they have far more to tell us about the devout meditations of monks and the scholarship of the schools and incipient universities than about the thoughts of ordinary folk. [1]

The lives of people are not lived in ink on quarto and octavo pages, even if that ink was placed there by them.[2] André Vauchez offers the same point when he writes that "the history of spirituality cannot be restricted to an inventory and analysis of the works which register the inner experience of monks." Vauchez, however, comments further, noting that "next to the explicit spirituality of clerics and religious formulated in writing, there is, in our opinion, another [spirituality]" which has left its traces in the texts as well as other material artifacts.[3]

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[1] Rosalind Brooke and Christopher Brooke, *Popular Religion in the Middle Ages: Western Europe 1000-1300* (Thames and Hudson, 1984), 61.
[2] Karen Jolly notes that "popular religion ... functioned mostly through oral transmission and thus is largely lost to us except where formal religion recorded its practices and beliefs." Karen Louise Jolly, *Popular Religion in Late Saxon England* (Chapel Hill: The University of North Carolina Press, 1996), 22.
[3] *SpMW*, 8.

That stones were more than a passing intellectual fancy is clear from the examples of known gemstone collections,[4] medical amulets,[5] cathedrals, chalices, reliquaries and altars,[6] as well as frequent references to stones and their virtues within the popular literature of the time.[7] Lapidary texts stand alongside cathedrals, chalices, and amulets as

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[4] Collections of gemstones are known to have existed in the Middle Ages. Examples include the Shrine of the Three Kings at Cologne (twelfth century), the Shrine of Marburg (1250) which housed the famous "Karfunkelstein of Marburg," the Aubergive "Trésor de Conques," the "Vesselle de Chapelle" of Louis, Duc d'Anjou (1365), as well as the jewels of Henry III (1266-1267). See C.W. King, "On the Use of Antique Gems in the Middle Ages," *Archaeological Journal* 22 (1865): 117-133. Paul II, pope from 1464-1471 also had a collection of gems, as well as Piero di'Medici who died in 1469 whose collection was later merged with Pope Paul II's. See J. Henry Middleton, *Ancient Gems: The Engraved Gems of Classical Times* (Chicago: Argonaut, Inc., 1969), esp. page 125. George Frederick Kunz records that "at the trial, in 1232, of Hubert de Burgh, chief justiciar, one of the charges brought against him was that he had surreptitiously removed from the English treasury an exceedingly valuable stone, possessing the virtue of rendering the wearer invincible in battle, and had given it to Llewellyn, King of Wales, the enemy of his own sovereign, Henry III of England (1207-1272)." George Frederick Kunz, *The Curious Lore or Precious Stones* (Philadelphia & London: J.B. Lippincott Company, 1913; reprint New York: Dover Publications, 1941), 44.

[5] Cf. T.G.H. Drake, "The Eagle Stone, An Antique Obstetrical Amulet," *Bulletin of the History of Medicine* 8 (1940): 128-132; Thomas R. Forbes, "Chalcedony and Childbirth: Precious and Semi-Precious Stones as Obstetrical Amulets," *Yale Journal of Biology & Medicine* 35 (1963): 390-401; H. Balfour, "Concerning Thunderbolts," *Folklore* 40 (1929): 37-49, 168-172; Walter W. Skeat, "'Snakestones' and Stone Thunderbolts as subjects for systematic investigation," *Folklore* 23 (1912): 45-80; Bernd Thier, "Ein spätmittelalterliches Pilgerzeichen aus Gagat, gefunden in Otterndorf-Westerwörden, Ldkr. Cuxhaven," *Nachrichten aus Niedersachsens Urgeschichte* 62 (1993): 331-338.

[6] "Throughout the Middle Ages ... great numbers of antique gems, and especially cameos, were used to decorate the most costly of the gold reliquaries." Examples include the *intaglio* of Julia by Euodos which decorated a shrine in the treasury of the Abbey of St. Denis, near Paris. See Middleton, 123. Other examples of sacred items decorated with gems include a crosier from a thirteenth century tomb at Canterbury (possibly that of Archbishop Hubert Walter †1205), the reliquary of Pepin (tenth century, Conques), the Lothar Cross (tenth century, Aachen), the portable Altar of St. Foy (eleventh century, Conques), a book cover from Bamberg (eleventh century, Munich), the cover of the Evangeliary of St. Ansfridus (eleventh century, Utrecht), the cover of the Evangeliary of St. Bernulphus (twelfth century, Utrecht), the cover of the Evangeliary from Gannat (twelfth century), caskets from Ambazac and Bellac (twelfth century), and a reliquary in Stockholm (thirteenth century). See Martin Henig, *A Corpus of Roman Engraved Gemstones from British Sites*. Part I: Discussion (Oxford: British Archaeological Reports, 1974), 199-200. Cf. also King, 122-123 for additional examples.

[7] Marvin Alpheus Owings provides a representative discussion of lapidary references within popular Middle English literature in his study *The Arts in the Middle English Romances* (New York: AMS Press, 1971) see especially chapter four "The Supernatural."

artifacts bearing further witness to the wide spread popularity of stones and their virtues within medieval society. Joan Evans notes that "the remarkable popularity of lapidaries in England during the Middle Ages remains one of the curiosities of mediaeval literature,"[8] and, as already noted in chapter two, John Riddle comments, that lapidaries can be considered a medieval "best seller."[9] This fascination with stones captured the entire breadth of medieval society as witnessed in the diversity as well as linguistic and geographical distribution of the lapidary texts themselves. Lapidary texts thus are a unique literary phenomenon, for even though they represent an intellectual tradition from classical sources re-introduced into the stream of medieval intellectual history through the writings of bishops and scholars, the medieval lapidary took on a life of its own, being molded and re-shaped in the crucible of vernacular society unlike any other literary form in the Middle Ages.[10] This uniqueness of the vernacular lapidary texts provides a similarly unique opportunity to study the popular piety of the masses in the late Middle Ages.

Popular Exemplarism

Much like the theologians and contemplative mystics of the Middle Ages, medieval men and women saw the universe as filled with divinity and supernatural power which were all understood to be gifts of God to humanity.[11] Lynn Thorndike, for instance,

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[8] EML, xi.

[9] *Marbode*, x.

[10] While it is true that other forms of literature like the vernacular prayer books and the corpus of morality and passion plays can also be used to plumb the depths of vernacular piety, neither of these literary forms can be said to have truly emerged from within a vernacular context as in the case of the vernacular language lapidaries. Prayer books and the morality and passion plays, though capturing elements of popular piety, still represent the catechetical efforts of the late medieval Church and as such, are not truly *products* of the vernacular culture.

[11] See John Alford, "Medicine in the Middle Ages: The Theory of a Profession," *The Centennial Review* 23:4 (1979), 394. Applied within the context of medieval healing arts, this understanding

comments that "everybody believed in magic; everybody understood something about it;"[12] and similarly, Ananda Coomaraswamy, in describing medieval people, states that "the whole man is naturally a metaphysician."[13] It was commonly believed that words, stones, and herbs could be used in any number of ways to procure health, wealth and protection from the forces of nature, from malevolent spirits, or from persons of ill intent.[14] The lapidary texts are clear that this power was believed to be of divine origin – a fact which only a sinner would doubt[15] – and that this divine power was understood to be greatest and most accessible within the virtues of stones.[16] In this, vernacular piety moved within the same religious space as the ecclesiastical writers who conceived of the universe as an *exemplar* of the divine.

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of *exemplarism* lead to the conclusion "...that various materials on earth are provided by God to promote health of the soul as well as of the body." Ruth M. Walker-Moskop, "Health and Cosmic Continuity: Hildegard of Bingen's Unique Concerns," *Mystics Quarterly* 11 (1985), 21.

[12] Lynn Thorndike, *The Place of Magic in the Intellectual History of Europe* (New York: AMS Press, 1967), 32.

[13] Ananda K. Coomaraswamy, "The Christian and Oriental, or True Philosophy of Art," in *Christian & Oriental Philosophy of Art* (New York: Dover Publications, 1956), 31.

[14] "And wyse men shulde not doute *þ*at god ne hath put vertu in stones & herbes & wordes" [Bodl., Douce 291] in EML, 17; "& a wyse ma*n* suld no*3*te mysbelefe y*t* god has no*3*te sett ve*r*tus in sontes & in herbe*s* & in worde*s*" Bold. Ms. Add. A. 106 (Ms. C.) in EML, 39; "no ma*n* schall be in dowte *þa*t god ha*þ*e set & put gret ve*r*tu i*n* worde, stone & erbe" [Peterborough, Cathedral 33] in EML, 63-4; "E nul sages homme ne diet duter ke Deus n'yet mis vertuz en peres et en paroles et en herbes." *Second Anglo-Norman Lapidary* in *Anglo-Norman Lapidaries*, ANL, 118-119.

[15] "& who so beleueth hit not but ayeinseith hit, he is but a synner." [Bodl., Douce 291] in EML, 17; "& he y*t* beleues noght yis dose gret synn" Bodl., Add. A 106 in EML, 39. Kunz comments that "the Middle High German didactic poem on precious stones, composed by Volmar, or Volamar, about 1250, appears to have been written as a rejoinder to a satirical poem, the work of a writer called the 'Stricker' (rascal). What chiefly aroused Volmar's wrath was the fact that this irreverent personage dared to assert that a piece of colored glass set in a ring looked just as well and possessed the same virtues as a genuine precious stone of the same color. Volmar does not mince matters, and roundly declares that whoever should kill the man who wrote thus would do no sinful act." Kunz, 373-4.

[16] "Ingens est herbis virus data, maxima gemmis" *De lapidibus*, prologus, l. 23. *Marbode*, 34; K'en peirres granz vertuz ne seit: | En erbes ne sunt tant trouvees" *First French Version of Marbode's Lapidary*, ll. 38-39, in ANL, 29.

When examining these assertions about the divine powers inhering within stones, however, it must be remembered that medieval man often conceived of God in ways different from that of the established religious authorities. André Vauchez points out that God was popularly conceived of as an impersonal force[17] and that 'virtue' was understood as a "supernatural dynamism"[18] which could be used and manipulated for the benefit of the various individuals tapping into this power. As a result, there was a need to remind people within the lapidary texts that the power of stones belongs to God and is governed by His providential will. This is seen, for example, in the description of an unnamed stone in Volmar's *Steinbuoch*, which Volmar claims has the power to raise the dead. Volmar, however, comments further that his purpose in not giving the name of the stone is to prevent people from finding and using it contrary to the will of God. If God wills that a man should die, then we must accept that judgment, he writes, for what God wills must be.[19] These comments of God's providence over human will and ingenuity stand out within the literature as a friendly reminder that the virtues of stones do indeed belong to God and that He is in control of even life and death.[20] The lapidary texts thus indicate that

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[17] "Interested neither in the complexity of relationships within the Trinity—a subject which fascinated the Christian Orient at the time—nor in the mystery of the Incarnation, which they often misunderstood or considered a kind of disgrace, the masses in the West thought of God as a beneficient power, capable of triumphing over the various forms of evil that held sway in the world and in society." *Laity*, 5-6.

[18] *Laity*, 6.

[19] "So ist etlîcher sô guot, | der in eime tôten tuot | in die hant od in den munt, | er wurde lebende an der stunt. | war zuo solte ich die nennen? | sô kunde se doch nieman erkennen, | si enmac ouch nieman gewinnen | mit deheiner slaht sinne. | wan die dâ sint sô wol behuot | daz si nieman mac erwerben. | den got wil der sol sterben, | den got wil der muoz genesen: | daz got wil daz muoz wesen." Lambel, 24:747-760. The comment "war zuo ... nieman erkennen" furnishes the added thought that even if he named the stone, no one would be able to recognize it, suggesting that God has deliberately hidden this stone from humanities sights so as to prevent people from using to meddle with the course of nature as directed by the will of God.

[20] Consider also the comments from the *First French Version of Marbode's Lapidary* "E ce vus di ge ben pur veir | Ke rien ne poit vertu aveir, | Se Deus li veirs ne li cunsent | E si de lui ne li

the popular *exemplarism* of the later medieval vernacular piety wrestled to maintain an understanding of God's providential role within the order of the created universe over and against the ingenuity of the human use and application of individual stones.

A further distinction between the vernacular and ecclesiastical understandings of the created order as divine *exemplar* is seen in the way in which stones were used. Whereas the emphasis in Bonaventure and Suger's writings is on the anagogical value of created things, the lapidary texts place a clear emphasis on the descending virtues that could be used by the pious individual. With the exception of the specifically Christian lapidaries and their catechetical contents, the core of the lapidary literature reflects a piety with a clear and definite interest, not in an anagogical use of stones, but rather on the benefits communicated and received.[21]

Pragmatic Orientation

A second characteristic that emerges from the popular use of stones is the pragmatic orientation of vernacular piety.[22] While contemplative ideals are indicated

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descent." ll. 43-46 in ANL, 29. Timothy Daalman also comments, for example, that Hildegard of Bingen "always leaves open the possibilities of an extra-humeral influence called grace" in "The Medical World of Hildegard of Bingen," *American Benedictine Review* 44:3 (1993), 289. Whatever the illness or manner of treatment, healing was believed to belong to God. See Alford, 391, 394.

[21] Given this vernacular context, the significance of the emerging lay-religious movements of the twelfth and following centuries, such as the Franciscans with their emphasis on a contemplative understanding of the created world, are all the more fascinating for the student of medieval spiritualities. Cf. David L. Jeffrey, "Franciscan Spirituality and the Growth of Vernacular Culture," in *By Things Seen: Reference and Recognition in Medieval Thought*, edited by David L. Jeffrey (Ottawa: The University of Ottawa Press, 1979), 150.

[22] *Litho*, 50. This trend can be seen generally within the development of medieval spirituality. Brooke & Brooke comment "there is a notable change within the medium in the preacher's theme and emphasis. Judgment and penance and the fear of hell were dominant in the 10th and 11th centuries; in the 12th and 13th a new spirit takes over, the preaching of the good Christian life and of practical morality to lay men and women whose destiny is by no means gloomy as before." op. cit., 124-125. Jolly relates how "popular religion ... was less concerned with doctrinal statements

within the Christian lapidaries, the overarching concern of the lapidary texts focuses on the benefits communicated by stones to help individuals with pragmatic concerns of day-to-day living. When the benefits offered to humanity through stones are broken down into categories, it is possible to see the scope of conditions to which it was believed that the virtues of stones could be applied. Several major categories clearly emerge outlining the foci and emphases of vernacular piety.

In the London lapidary of king Philip,[23] for example, of the thirty-nine stones listed,[24] eighteen hold virtues applied directly to health issues,[25] sixteen are listed with theological virtues,[26] thirteen stones may be applied to social circumstances,[27] nine could be used for matters of personal defense,[28] seven stones listed virtues that modified a person's character,[29] seven stones listed virtues relating to one's moral disposition,[30] six stones were listed with virtues that could best be categorized as being 'fantastic' in nature,[31] six stones were specifically recommended for matters in childbirth and

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and more concerned with the practical expression and implications of those truths as expressed in rituals." Jolly, 22. See also John Riddle, "Theory and Practice in Medieval Medicine," *Viator* 5 (1974): 157-184, and Linda E. Voigts, "Anglo-Saxon Plant Remedies and the Anglo-Saxons," *Isis* 70 (1979), 254.

[23] [Bodl., Douce 291], EML, 16-37.

[24] Some of the stones were listed as possessing virtues in more than one category and so the total number of stones in each category added together will equal more than the total number of stones described in the lapidary itself.

[25] §4-8, 11-13, 16-18, 20, 23, 24, 27, 30, 37, 39.These include the treatment of particular health conditions, as well as assistance with sleeping, and the calming of the mind from troubling thoughts. Childbirth and childrearing concerns are listed under a separate category.

[26] §1-16. This includes Biblical symbolism, reference to doctrinal matters, as well as virtues that relate to aid with contemplation.

[27] §3-6, 10, 12, 13, 15, 18, 22, 30, 35, 37.

[28] §5, 9, 13, 17, 19, 20, 22, 31, 39.

[29] §1, 7, 8, 9, 10, 13, 14.

[30] §2, 5, 6, 9, 13, 16.

[31] §8 *Accate* could render one invisible when held in a closed fist; §11 *Onicles* allowed one to speak with the dead; §21 *Magnete* when burned as a power would cause people to flee; §24

childrearing,[32] four stones were listed as being useful in martial concerns,[33] three stones were listed having virtues for domestic matters,[34] another three were listed for curiosity's sake,[35] two stones each possessed virtues which were functional in nature,[36] financial,[37] and relating to poison,[38] and one stone was listed with virtues relating to protection from demons.[39] The other Middle English lapidaries demonstrate a similar distribution of virtues[40] emphasizing pragmatic day-to-day concerns with health and general well being.

Aspites speeds the cooling of boiled water when the stone is placed therein; §28 *Aracontalides* and §32 *Hyeme* were believed to confer powers of divination.

[32] §6, 17, 18, 20, 25, 30.

[33] §12, 17, 18, 21.

[34] §20 *Ieet* could be used to drive serpents away, and §33, 36.

[35] §26, 29, 34 *Onidros* which is described as having the ability to display a rainbow when held against the sun.

[36] §5 *Safire* which is claimed to keep a man from prison, or if one finds himself imprisoned, it helps him to escape and §10 *Crisolide* which would ensure its wearer freedom in the crossing of borders.

[37] §3, 17.

[38] §6, 8.

[39] §10.

[40] Of the *North Midland Lapidary's* thirty six stones, twenty-one relate to health (§1, 2, 4-8, 12, 13, 16-19, 22, 24-26, 28, 29, 32, 34), thirteen to social issues (§4, 7, 8, 11, 12, 13, 15, 17, 18, 23, 26, 30, 34), ten to theological matters (§3-9, 11-13), nine to character formation (§1, 3, 9, 14, 16, 22, 27, 28, 34), personal defense (§1, 3, 5, 8, 9, 20, 21, 24, 25), and moral formation (§3, 5, 7, 10, 12, 13, 25-27), five to childbirth (§6, 17, 23, 29, 34), four to marital concerns (§12, 20, 19, 23), and domestic matters (§13, 21, 25, 27 *Espetyt* which keeps vermin from fruit), three list virtues that are functional (§5, 20, 31), and fantastic (§11, 13, 26), two are listed for curiosity's value (§2, 33), two for financial matters (§3, 11), and one for matters of poison (§26). The *Ashmole lapidary* [Bodl., Ashmole 1447] lists six stones of which three are listed with fantastic virtues (§1 grants invisibility; §2 grants the ability to tell the future; and §4 when placed under the tongue and then touched to one's heart, grants the bearer his wish), two relating to character formation (§5 *Alectorious* & 6 *Caldonion* make one kind), two to function matters (§3 *Thophasin*, when placed in boiling water, allows one to reach into the water without getting burned; §6 *Caledonion* grants safe travel), and one for health matters (§6 against fevers). Of the 145 stones listed in the *Peterborough Lapidary* [Peterborough, Cathedral 33], forty eight relate to health (§5, 8-10, 12, 14, 15, 19, 25, 26, 40, 41, 45, 50, 52-54, 56 64-66, 68, 69, 72, 75, 78, 80, 82, 83, 86, 93, 104, 107-109, 111, 113-115, 119, 122, 123, 125, 128, 130, 133, 135, 136), thirty three are listed for curiosity sake (§1, 3, 11, 13, 21-23, 28, 29, 34-38, 57, 58, 62, 67, 74, 87, 88, 91, 92, 98, 101, 103, 120, 121, 126, 138, 142, 145), twenty-nine relate to social concerns (§2, 4, 6, 8, 24, 25, 30, 32, 33, 39, 40, 41, 44, 47, 50, 56, 68, 69, 76, 81, 85, 93, 96, 108, 109, 117, 122, 132, 141), twenty-five may be applied to matters of personal defense (§2, 15, 20, 27, 42, 45, 53, 55, 56, 59, 68, 69, 79, 83, 97, 108, 110, 112, 118, 124, 129, 131, 132, 135, 137), twenty-one are useful for matters in childbirth and childrearing (§4, 8, 39, 46, 49, 50, 56, 59, 70, 73, 76, 83, 86, 90

In similar manner, the German lapidary of St. Florian, which claims to be a Christian lapidary, lists only two stones with specifically theological virtues.[41] Within this lapidary, the canonical stones are listed for primarily non-theological applications while noting nonetheless that these virtues are God-given as is illustrated in the rite for the blessing of

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Macedone prevents a pregnant woman from giving birth, §93, 124, 134 *Orides* and §137 *Orites* prevent conception or cause a woman to loose/deliver the child early, §139 *Piante* and §140 *Prassio* are both listed as helping with childbirth as well as guarding both father and mother against parental wrath, §144), fourteen can be used for character formation (§8, 15, 25, 32, 42, 47, 70, 79, 94, 108, 110, 111, 116 *Sardonix* which puts away lechery and makes a man meek and chaste, §134), twelve are listed with virtues that are fantastic in nature (§18, 51, 61, 64, 68, 82, 84, 89, 94, 99, 109, 135), eleven possess moral virtues (§6, 15, 32, 39, 68, 93, 104, 108, 111, 113, 143), eleven stones have virtue against poison (§7, 70, 79, 93, 102, 105, 108, 112, 123, 131, 134), nine have functional virtues (§31, 39, §63 *Disparea* and §106 *Laparie* as well as §127 *Lontucerius* possess virtues relating to success in hunting, §94, 100, 107, 108), eight list virtues that relate to domestic concerns (§20, 41, 46, 53, 71, 83, 86, 102), seven list virtues relating to demons (§5, 15, 16, 31, 60, 64, 65), six possess theological virtues (§15, 25, 68, 110, 113, 122), three may be applied to marital concerns (§25, 104, 107), and financial concerns (§4, 68, 70). Of the thirty five stones listed in [B.M., Sloane 2628], nineteen relate to health (§1-5, 7-9, 11, 12, 14-18, 20, 30, 31, 34), ten relate to personal defense (§1-3, 6, 9, 10, 11, 16, 21, 25), eight relate to childbirth (§1, 5, 13, 18, § *Orides* is again listed as preventing conception, §26, 27, 34), seven relate to social circumstances (§10, 13-15, 19, 25, 29), seven possess fantastic virtues (§8, 23, 24, §26 *Christall* can restore the virtue of a stone which was lost on account of its bearer's sin, §28, 30, 34), six list moral virtues (§2, 3, 6, 7, 32, 35), five relate to matters of poison (§2, 15, 25, 30, 33), four touch on marital concerns (§4, 13, 17, 20), domestic concerns (§10, 16, 18, 34), three relate to character formation (§3, 18, 34, 35), financial issues (§1, 18, 32), two possess functional virtues (§2, 16), and one stone is listed for each of theological matters (§1), curiosity (§22), and relating to demons (§34).

[41] Lambel, 95-125. Of the thirty-five stones listed, seventeen apply to matters of health, twelve to character formation, ten to matters of personal defense, nine to social issues, five to marital concerns, five also list fantastic virtues, four possess moral virtues, three stones are listed with functional virtues, two may be used in relation to demons, for domestic concerns, relate theological virtues, are listed out of curiosity, and for matters of poison, and one is listed in relation to childbirth. In a similar manner, in Volmar's *Steinbuoch*, Lambel, 3-32, eighteen stones are listed with virtues that relate to health, sixteen relating to social conditions, fourteen to personal defense, six possessing fantastic virtues, five touching on marital concerns, three stones each addressing worries with demons, domestic issues, and financial concerns, and one stone each for character formation, functional virtues (hunting), theological virtues, childbirth, dealing with poison, and one listed purely out of curiosity. The same can be said of the corpus of Encyclopedic lapidaries which claim to be Christian stone-lists yet rarely mention anything other than medical virtues relating to the stones.

stones, which closes the manuscript.[42] The same emphasis is seen in the lapidaries of Hildegard of Bingen,[43] Albert Magnus,[44] Thomas of Cantimpré,[45] Arnold of Saxony,[46] and Vincent of Beauvais.[47] The foci of concern illustrated in the lapidary texts demonstrate that vernacular piety was clearly oriented more toward a maintenance of health and well-being and the protection of self and home,[48] than toward what we would consider specifically theological concerns.

Of equal significance is the inclusion of apparently ineffectual stones within the listings of the lapidary texts. Present in both the Latin and vernacular lapidaries, the presence of these entries within the texts suggests a popular fascination with stones which goes beyond the virtues that they may possess, fixating on gems and stones as objects of curiosity in and of themselves. Stones were valued not only for their virtues but as objects of fascination.[49] In addition, the lapidaries occasionally also list stones whose virtues are

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[42] This German lapidary is a close copy of Thomas of Cantimpré's encyclopedic lapidary which is also primarily concerned with medical matters and closes with the rite of the blessing of stones. Thomas of Cantimpré, however, also includes a section on stones with engraved images and their virtues. See Thomas Cantimpratensis, *Liber De Natura Rerum.* Editio Princeps Secundum codices manuscriptos. Teil I: Text. (Berlin: Walter De Gruyter, 1973), 355-374.

[43] *De Lapidibus*, PL 197:1247-1266.

[44] "De Mineralibus" in *Opera Omnia*, edited by P. Jammy, volume two (Leuven, 1651) 210-72.

[45] Thomas Cantimpratensis, Ibid.

[46] Arnold of Saxony, *De finibis rerum naturalium*, edited by E. Strange. (Erfurt, 1905).

[47] Vincent of Beauvais, *Speculum Naturale*. Volume One. (Douai, 1524; reprint Graz, 1964), 425-492.

[48] Regarding the stone *Geracîte*, Volmar recounts the domestic value of the stone in keeping flies out of the house saying "swer sîn hûs bestriche | mit honege alsant, | beidiu mûren unde want, | und den stein trüege in daz hûs, | sô flügen die fliegen al dar ûz: | swen er in trüege aber hin, | sô flügen si aber wider in." Lambel, 17:490-496; "yai say y*t* ye corall kep*es* a-way thonduerys & tempest*es* whiche syd y*t* a man ber*es* him, oyer in hows or in cour*t* or in feld*es* or in ways or in gardyns; & wher som of y*t* ston is cast in ye sed*es* he sal kep it fro al tempest of wedd*er*, ne he wyl suffre no schadow of fend*es*. He gyff*es* in cerins gud forton." §21 *Corayle* in Bodl., Add. A 106, EML, 53.

[49] §26, 29, 34 in Bodl., Douce 291, §2, 33 in Bodl., Add. A 106, §1, 3, 11, 13, 21, 22, 23, 28, 29, 34-38, 57, 58, 62, 67, 74, 77, 87, 88, 91, 92, 98, 101, 103, 120, 121, 126, 138, 142, 145 in [Peterborough, Cathedral 33], §22 in B.M., Sloane 2628, in EML. Volmar says of *grânât* and

identified but the name and identity of the stone is closely guarded and never given such as Volmar's stone with the power to raise the dead.[50] These entries within the lapidary texts suggest that the popularity of gems and stones went beyond their practical utility. People were apparently interested in stones out of purely curiosity's sake.

The *Sitz im Leben* described in the lapidaries is also worth noting. The locus for the piety of the masses was clearly the home, the work place, and the world of day-to-day affairs. Stones are described as being used at home, in situations of social contact, during hunting and travel – the places where people lived their daily lives. Interestingly, there is no reference within the published vernacular lapidary texts that stones were used within an ecclesiastical setting, with the exceptions of the rite of blessing recorded in Thomas of Cantimpré's encyclopedia and in the St. Florian Steinbuch, and the stone *Celidonie,* listed in the Peterborough lapidary, where it is explained that in order to benefit from virtue of this stone, it must be held tightly in the hand while attentively observing a celebration of the Mass.[51] The Church and her hierarchy was perceived a resource but were certainly not

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red *jâchant* that "der krefte ist niht ze vil" l. 671, Lambel, 22. Marbod lists §8, 15, 21, 23, 33, 35, 37, 38, 40, 46, 47, 50, 52, 59, 60 in *De lapidibus* as not possessing any particular virtue.

[50] Volmar's *Steinbuoch*, ll. 747-760 in Lambel, 24-25.

[51] If tightly held in hand in a linen cloth during the Sacrament, *Celidonie* is desribed as being good for the health. See §40 *Celidonie*, EML 76-77. Brooke & Brooke comment regarding lay-attendance at the Mass writing, "So rare had communion become that at the Fourth Lateran Council in 1215 it was thought necessary to insist that layfolk communicate at least once a year." Brooke & Brooke, 115.

the locus of vernacular piety of the masses.[52] As seen within the lapidary texts, vernacular piety was pragmatic, vocational, and domestic in scope.[53]

Accessing the Divine Power within Stones

Through proper use and application, the powers and virtues of stones could be unleashed and used for personal benefit. The lapidary texts provide instructions on the specific settings and manners in which particular stones were to be used in order to effect and apply their virtues. The French *Alphabetical Lapidary* lists four basic manners by which the 'medicine of stones' could be applied: by touch, by carrying, by drinking, and by possession.[54] Stones could be worn in a ring[55] or necklace.[56] Some lapidaries like that of

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[52] Indeed, as Brooke & Brooke note, some within medieval society whom they call "the devout heretics ... saw the visible Church as a distraction and a barrier to true devotion" and then there were the "scoffers to whom it was offensive or irrelevant." Ibid., 64.

[53] While the Liturgical rites of the Church were most certainly held in high esteem, they do not appear to have been the hub of vernacular piety within the lapidary texts which are much more concerned about domestic matters.

[54] "Ensurquetut quatre maneres | Mustrat medicine des peres: | Pur le tocher, pur le porter, | Pur le beivre, pur l'esguarder. | Ces quatre maneres posad | Deus, grant signifiance [i] ad" *Alphabetical Lapidary*, ll. 1693-1698. ANL, 258.

[55] §1 *Sardes*, and §13 *Baleys* [Bodl., Douce 291], §1 *Sardes*, §18 *Electoyr* which was to be worn in a golden ring on the right hand, and §22 *Cornellyn* which could be worn in either a ring or a necklace [Bodl., Add. A 106], §25 *Berellus*, §41 *Coral*, §108 *Saphyr*, §116 *Onychinus* and §135 *Onicle* which could be worn in either a ring or a necklace [Peterborough, Cathedral 33], §1 *Diamond* which is to be set in steel and worn on the left, §2 *Safire* and §3 *Emeraude* which are to be set in gold and worn on the right, §8 *Onicle* which may be worn in a necklace or a ring [B.M., Sloane 2628] in EML. *Almandine, sapphire* set in gold, *crystal, achat, onichinus*, and *sardjus* as well as the engraved stones [Volmar's *Steinbuoch*], *jacinctus, onix, diamand* set in silver or in gold, *corneolus* which could be worn in either a ring or necklace [St. Florianer Steinbuch] in Lambel. §7 *Calcedonio* which may be set in either a necklace or a ring, and §14 *Iacincto* in Marbod's *De lapidibus*.

[56] §30 *Caladista* [Bodl., Douce 291], §22 *Cornellyn* which could be worn in either a ring or a necklace [Bodl., Add. A 106], §44 *Collarus*, §82 *Florendanius*, §83 *Gagatis*, §86 *Galactida*, §109 *Smaragdus*, §116 *Onychinus* and §135 *Onicle* which may be worn in either a ring or a necklace [Peterborough, Cathedral 33], §6 *Crisolite*, §8 *Onicle* which may be worn as either a ring or a necklace, §27 *Alectorice* which should be wrapped with linen [B.M., Sloane 2628] in EML. *Magnat* worn as a necklace would help a woman to keep her man [Volmar's Steinbuoch], Lambel, 21. *Corneolus* could be worn either in a ring or a necklace [St. Florianer Steinbuch], in

B.M., Sloane 2628 and the German lapidaries of Volmar and St. Florian prescribe particular metals to be used in the settings for stones.[57] Stones could also be worn as an amulet bound to one's thigh,[58] to the arm,[59] or to one's hip;[60] in some instances, the virtues were communicated by sight;[61] some entries prescribe a wearing of the stone on a particular side, most often on the left,[62] but occasionally on the right.[63] In some instances, the lapidaries prescribe that the stone must be wrapped in a linen cloth.[64] In many instances, the lapidaries prescribe soaking the stone in water[65] or another liquid,[66] for a

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Lambel. §7 *Calcedonio* which may be set in either a necklace or a ring, §8 *Smaragd*, §11 *Chrysolito*, §22 *Cornelio* which may be worn as either a ring or a necklace, and §42 *Galactida* in Marbod's *De lapidibus*.

[57] §1 *Diamond* which is to be set in steel and worn on the left, §2 *Safire* and §3 *Emeraude* which are to be set in gold and worn on the right [B.M., Sloane 2628] in EML. *Sapphire, amatiste*, and *turkois* are to be set in gold, stones engraved with the 'two children' are to be set in either lead or gold [Volmar's *Steinbuoch*], and *Jasper* is to be mounted in a silver setting [*St. Florianer Steinbuch*] in Lambel.

[58] Such as §30 *Caladista* to aid in childbirth [Bodl., Douce 291] in EML, 35.

[59] Such as §23 *Etrayte* which when bound to the left arm would help in childbirth [Bodl., Add. A 106] in EML, 53-4 and §56 *Cleridonius* which protects a man from being slain [Peterborough, Cathedral 33] in EML, 81.

[60] Such as §29 *Galatite* which speeds the delivery of a child [Bodl., Add. A 106] in EML, 56.

[61] In the cases of §15 *Calcedoyne* which grants success to its bearer in negotiations [Bodl., Douce 291] in EML, 30, §3 *Emeraude* which helps preserve a man's sight, §4 *Ruby* which comforts the eye and the heart and the body [Bodl., Add. A 106] in EML, 40-42, the Peterborough lapidary claims that by gazing at §68 *Esmeraude* the individual will have his wishes granted [Peterborough, Cathedral 33] in EML, 85-6. §54 *Melochita* which when worn by children averts the effects of an evil eye and thus protects them from evil. *Marbode*, 87.

[62] As in the cases of §10 *Crisolide*, §17 *Diamond*, and §19 *Celidoyne* [Bodl., Douce 291], §10 *Crisolyte*, §17 *Diamond*, §19 *Celidoyne*, §27 *Espetyt* (worn near the heart) [Bodl., Add. A 106], and §31 *Crisolide* [Peterborough, Cathedral 33] in EML.

[63] As in the cases of §24 *Aspite's* [Bodl., Douce 291], and §18 *Electoyr* [Bodl., Add. A 106] in EML.

[64] As in the cases of §19 *Celidoyne* [Bodl., Douce 291], and §6 *Caledonius* [Bodl., Ashmole 1447] in EML.

[65] See §4 *Ruby*, §5 *Safire*, §12 *Berill*, §19 *Celidoyne*, §20 *Ieet*, §26 *Medus* [Bodl., Douce 291], §32 *Thegolite* [Bodl., Add. A 106], §52 *Cecolite*, §83 *Gagatis*, §124 *Litugures* [Peterborough, Cathedral 33], and §12 *Ruby* [B.M., Sloane 2628] in EML.

[66] See §21 *Magnete* which was to be soaked in oil, §26 *Medus* which could be wetted in mother's milk, §30 *Caladista* which could be soaked in oil [Bodl., Douce 291], §28 *Ematite* which was to be soaked in wine, honey, of the juice of a pomegranate, §34 *Capaduascum* which was to be soaked in water or wine and used as a drink or a wash [Bodl., Add. A 106], §66 *Dianya* which was

prescribed period of time before ingesting the liquid to benefit from the stone's virtues. Evidently it was believed that the virtue of the stone could be passed into the liquid in the same way that herbal scents pass from an herb into oil or vinegar in which it is stored. *Lince* could be added to a bath as a way to test a woman's virginity.[67] Other applications involved holding the stone in one's mouth,[68] placing it under a pillow,[69] grinding the stone into a powder which could then be scattered throughout one's house or property,[70] application as a poultice,[71] used as toothpaste,[72] as an eyewash,[73] or ingested within a beverage.[74] In some cases the stone or its powder was burnt believing that its particular

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to be soaked in wine, ale, or water, §74 *Exebenius* which was to be powdered and drunk with a white wine, §80 *Fedus* which was to be powdered and drunk with mother's milk, §86 *Galactida* which is to drunk with milk, §125 *Lincis* which is to be ground and drunk with a white wine, §128 *Lasulus* which is to ground and drunk with rose water [Peterborough, Cathedral 33], §2 *Saphir* which is to be steeped in milk and then drunk, and §27 *Alectorice* which is to be powdered and drunk with milk [B.M., Sloane 2628] in EML.

[67] "If a wooman be naked in a bath, put the same powder of this stone in the bath; if she be a mayd she shall not mooue far, if she be none she shall stand vp in a great hast and pass away all naked for shame." §34 [B.M., Sloane 2628] in EML, 130

[68] As in the cases of §7 *Ligure*, §28 *Arcontalides*, §30 *Caladista*, and §32 *Hyeme* [Bodl., Douce 291], §7 *Lygur*, §18 *Eloctoyr* which makes a man a good manager of a household and makes women more pleasing to their husbands [Bodl., Add. A 106], §51 *Calonite*, §100 *Indres* which grants the user the ability to understand all languages, §132 *Niger*, §133 *Uytrum* which "abate*þ* fatnes if it is take*n in* þe mowþe" (EML, 113) [Peterborough, Cathedral 33], §4 Adamand which is to be set in the mouth along with a drink of wine [B.M., Sloane 2628] in EML.

[69] Such as §21 *Magnete* which could be used to test marital faithfulness [Bodl., Douce 291] in EML, 33.

[70] §21 *Corayle* which protects house and field from the malefects of storms and raiders [Bodl., Add. A 106] in EML, 53. The Peterborough lapidary mentions the added virtue that *Coral* causes the fruit of one's land to multiply. See §41 *Coral* [Peterborough, Cathedral 33] in EML, 77-78.

[71] Such as §30 *Caladista* which could be ground and mixed with water and salt for use as a poultice to aid in childbirth [Bodl., Douce 291], and §53 *Catarícus* which should be combined with vinegar and applied as a poultice for leeching [Peterborough, Cathedral 33] in EML.

[72] See §20 *Ieet* [Bodl., Douce 291] in EML, 32-33.

[73] See §41 *Coral*, and §56 *Cleridonius* [Peterborough, Cathedral 33] in EML.

[74] See §41 *Coral*, §49 *Caladista*, §74 *Exebenius*, §124 *Litugures*, §125 *Lincis* §128 *Lasulas* [Peterborough, Cathedral 33], §26 *Cristall*, §27 *Alectorice* [B.M., Sloane 2628] in EML.

virtue was released in its odor[75] as in the case of *Magnete*, whose smoke caused the inhabitants of a house to flee, leaving it vulnerable to the wiles of a thief.[76] In some cases, a stone's virtues had differing effects when applied in different ways as in the case of *Coral* which when scattered in the home and fields, protected them from tempest, when worn in a ring, attracted health and love to the bearer, and when powdered and drunk, served as a cure for the cramp.[77] In some cases caution needed to be exercised, as in the case of *Magnes*, which by all standards was a very useful stone to have around the home. It could be used to test marital faithfulness, chase residents from a house, to encourage love between husband and wife, and calm marital disputes. If powdered and drunk, however, *Magnes* would cause a woman to become barren; and if a man should drink of it four times, the Peterborough lapidary warns that his genitals would fall off.[78]

André Vauchez relates that vernacular "piety was expressed principally through exterior signs and practices."[79] He explains

> At the heart of the religious activities of the people of this era was the search for a relationship with the divine. This relationship was established by means of signs and rituals which thereby took on fundamental importance.[80]

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[75] See, for example, §20 *Ieet*, [Bodl., Douce 291], §83 *Gagatis* [Peterborough, Cathedral 33], and §34 *Lince* [B.M., Sloane 2628] in EML.

[76] "And yef a thefe entre in-to an house for to stele, & he tak a quyk bronde of fire, & put vppon þe bronde þe poudre of the magnete so þat þe smoke go aboute to þe iiij corners of þe house, then thei þerinne shul fle for drede, wenyng þt þe house shall falle vppon hem; & so may the thefe take al that hym lyste." §21 *Magnete* [Bodl., Douce 291] in EML, 33.

[77] §51 *Coral* [Peterborough, Cathedral 33] in EML, 77. See also §5 *Safire*, §20 *Ieet*, §30 *Caladista* [Bodl., Douce 291], §56 *Cleridonius*, §82 *Florendanius*, §83 *Gagatis*, §86 *Galactida* [Peterborough, Cathedral 33], §34 *Lince* [B.M., Sloane 2628] in EML.

[78] "Also yf a woman drynke þe powder þerof sche schal be baren; and yf a man drynke iiij times he schal lese his genetralis." §107 *Magnes* [Peterborough, Cathedral 33] in EML, 99.

[79] *Laity*, 90. "Both paganism and Christianity express themselves in ritual." Jolly, "Anglo-Saxon charms in the context of a Christian world view," *Journal of Medieval History* 11 (1985), 286. Jolly further describes the world-view of the Middle Ages, writing that "God is the source of all virtues and the only proper avenue of direct appeal is Christian ritual." Ibid., 287.

[80] *Laity*, 91. Also, "During the early Middle Ages and even during the feudal era, the faithful could not contemplate coming into contact with the supernatural except by means of gestures

Church ritual came to be seen as magical in character and was perceived as a way to access and unleash divine power.[81] Ritual also appears in the lapidary texts as a facet of vernacular piety. Some stones required ritual as a part of the application to release their particular power. *Ligure* is said to cool a man of excessive heat when held in the mouth;[82] *Saphyr*, when touched to ones chains or the four corners of a prison cell, would grant freedom to its user.[83] *Deadotes*, when touched to a corpse three times, would animate the body as though it were alive, lacking only speech and intention.[84] Touching *Etite* to ones meal will nullify the strength of any poison contained therein.[85] Other stones like *Magnete* could be placed under the bed to test a wife's faithfulness.[86] Alternately, a husband could place it on his wife's head as she sleeps.[87] In some cases more elaborate rituals incorporating prayers and invocations were prescribed in order to elicit the stone's virtues. Hildegard of Bingen's instructions on the use of *Hyacinth* provide an example of this.

> For anyone who is 'bezaubert' [bewitched] by fantasms or magic words and has gone out of their mind: take a warm loaf of fine wheat and cut the shape of a cross through its top crust, but without breaking the loaf into pieces; draw the stone through the line of the cut on top and say:
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> 'May God, who deprived the devil of very precious stones

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which gave them a hold on it, so to speak. This was the time when the liturgy played a basic role for both monks and layfolk, even though the latter hardly understood its meaning. What was crucial in their eyes was scrupulous observance of the rituals which were mysteriously effective in themselves." *SpMW*, 167. Cf. also Daalman, 282 and Richard Kieckhefer, *Magic in the Middle Ages* (Cambridge: Cambridge University Press, 1989), 4. For a discussion of liturgical ritual within Anglo-Saxon medical practice, see Jolly, *Popular Religion,* 113-116.

[81] *SpMW*, 24, 19.

[82] §7 *Ligure* [Bodl., Douce 291], EML, 24.

[83] §108 *Saphyr* [Peterborough, Cathedral 33], EML, 101.

[84] Touching three times is presumably a ritual symbol of the Trinity. §64 *Deadotes* [Peterborough, Cathedral 33], EML, 84.

[85] "If a man be aferd of poyson of mete or drynke, lete þis ston towche þe mete or drynke viij tymes & it schall neuer do him harme." §70 *Etite* [Peterborough, Cathedral 33], EML, 87.

[86] §21 *Magnete* [Bodl., Douce 291], EML, 33.

[87] §20 *Magnete* [Bodl., Add. A 106], EML 52.

after he had broken his commandment,
drive out from you N.,
all fanstasms and all magic spells,
and may he release you from all the pain of this madness.'
And again, drawing the stone transversely through the bread say:
'Just as the splendour which the devil had
was taken from him because of his transgression,
so may this madness too,
which oppresses you, N., through fantasms and through magic,
be taken from you,
and may it depart from you!'
Then, take the bread around the line of the cut through which you have passed the hyacinth and give it to the suffering person to eat.[88]

Other simple rituals are described as in the case of *Baleis* which if touched to the four corners of a house, it would be protected from both tempest and worm.[89]

While there is no indication that the Church was opposed to the use of stones for their virtues, there was, however, a concern that they be used in a Christian manner. This presumably meant that stones could be used for various purposes provided that it be done with Christian prayers and incantations. The persistently popular Penitential of Theodore (668-690 AD), for instance, allows that "one who is possessed of a demon may have stones and herbs, without [the use of] incantations."[90] McNeill points out that, in the eleventh century, Bishop Burchard in his *Corrector sive medicus* condemns the practice of "collecting medicinal herbs with incantations other than the Creed and the Lord's Prayer."[91] One would assume that he would have similar reservations about non-Christian

[88] §2 *De Jacincto*, in Hildegard of Bingen, *De Lapidibus*, PL 197:1251. Translation by Mark Atherton in, *Hildegard of Bingen: Selected Writings* (Penguin Books, 2001), 110.
[89] §30 *Baleis* [Peterborough, Cathedral 33], EML, 74.
[90] McNeill & Gamer, 207.
[91] McNeill, 461. Cameron points out that the same can be seen in Egbert's penitential. He comments that "it was not magic *per se* which was being forbidden... That is, when herbs were gathered (as for medicine) it was not wrong to call on the Christian God to bless the gathering, but one must not invoke the blessing of a heathen deity." M.L. Cameron, "Anglo-Saxon medicine and magic," *Anglo-Saxon England* 17 (1988), 214. See also Jolly, *Journal of Medieval History*, 286.

incantations being used with stones. Other than these brief references, however, there is no evidence to suggest that the Church was at odds with the vernacular culture in its belief in the virtues and powers of stones. When viewed against the background of medieval figures such as Hildegard of Bingen, Albert Magnus, as well as the host of encyclopedias, it becomes evident that the Church through her clergy and religious both encouraged and endorsed a popular-vernacular belief in the powers and virtues of stones as well as the use of such stones in medicinal practice.[92] While it is true that Church law in previous centuries had forbidden the practice of medicine by the clergy,[93] care for the sick became an increasingly important facet of the religious piety in the later Middle Ages.[94]

Lastly, the ability to benefit from the virtues of stones was believed to be dependant upon the moral and spiritual disposition of the individual. William Holler relates about the *Book of Sydrac*, that "the effectiveness of a remedy, herb, or precious stone" is true only for the individual who holds the faith.[95] Joan Evans relates that the Provençal lapidary *De la natura de las peyras preciosas, e de lors vertutz*, written in

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[92] Cf. "For many centuries after the fall of the Western Empire the belief in magical signet-gems survived, and, to some extent, it lasted throughout the Middle Ages. Even the most orthodox Prelates of the Church did not wholly disbelieve in the magic of gems." Middleton, 123. Cf. Vauchez's comments "the clerics shared the same culture—or lack of it—as the laity and were influenced by the surrounding mentality." *SpMW*, 27. Interestingly, gems and stones are not listed among the materia medica used by heretics in the thirteenth century. "The treatments spoken of were herbs, powders, poultices, unguents, or simply *medicina*, once a bath." Walter L. Wakefield, "Heretics as Physicians in the Thirteenth Century," *Speculum* 57 (1982), 331.

[93] "A synod at Ratisbon in 877 prohibited priests from studying medicine, and this prohibition was repeated at the Council of Rheims in 1131 and at the Lateran Council of 1139." Thomas A. DuBois, *Nordic Religions in the Viking Age* (Philadelphia: University of Pennsylvania Press, 1999), 117. For a detailed discussion about medieval canon law regarding this point, see Darrel W. Amundsen, "Medieval Canon Law on Medical and Surgical Practice by the Clergy," *Bulletin of the History of Medicine* 52 (1978): 22-44.

[94] *Laity*, 22-23. This is seen most clearly in the rise of the Franciscan movement which focused much of its activities on the charitable care for the sick. Many cloisters also served as hospices for the ailing.

1288, asserts the claim that the sins of the wearer impair the virtues of stones.[96] Likewise, the introduction to the Peterborough lapidary comments that "god ha*þe* set & put gret ver*t*u *in* worde, stone & erbe, by the wyche, if it so be *þat* men be not of mysbeleue & Also owte of dedly synne, & ma*n*y [wonder]full m*er*vailes myȝt be wrowȝt þorow her vertues."[97] Similarly, George Frederick Kunz relates the opinion of Sir John Mandeville, the fictional author of the popular account *Mandeville's Travels*, that a good diamond will often loose its virtue "by sin and for incontinence of him who bears it."[98] Like an unworthy communicant at a celebration of the Mass, immorality could cut one off from the divine benefits scattered throughout creation. Similarly, echoing Old Testament purification laws, contact with a dead man could also nullify the virtue and power of some stones as in the case of *Diadose*.[99] Thomas DuBois rightly notes that "it is hard ... to imagine a healer who did not recognize his procedure as absolutely dependent on Christian symbolism and the healing powers of the Christian faith."[100] In the same manner, the lapidary piety of the Middle Ages reflects the same concern with Christian moral formation as it appears throughout the world of medieval piety.[101]

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[95] William M. Holler, "The Ordinary Man's Concept of Nature as Reflected in the Thirteenth-Century French *Book of Sydrac*," *The French Review* 48:3 (1975), 527-528.
[96] Evans, 63-64.
[97] From the prologue, [Peterborough, Cathedral 33], EML, 64.
[98] Unfortunately Kunz does not reference this quote. See Kunz, 71. Cf. "That precious stones could, under certain circumstances, lose the powers inherent in them was firmly believed in medieval times. If handled or even gazed upon by impure persons and sinners, some of the virtues of the stones departed from them." Ibid., 44.
[99] "Diadosus is a ston riall & briȝt as berell; & it is able to haue answer*es* of fendes, for exceteþ fendes & fantaȝies; and if it haþ þ*at* it towche a ded ma*n*, it leseþ his v*er*tu, for that ston hateþ a ded ma*n*" §60 *Diadose* [Peterborough, Cathedral 33], EML 84.
[100] DuBois, 117.
[101] Cf. *Laity*, 49.

Syncretism of Religious Sources and Ideas

Another notable characteristic within the literature is the free mixing and juxtapositioning of Christian and pagan narratives within the lapidary literature.[102] No distinction is made between the Scriptural, and the fabulous within the texts. In fact, the two mingle easily without any concern of contradiction as is seen in the description of the virtues of *Emeraude*.

> The bible seith *þ*at emeraude was *þ*e first stone named of god vppon the brest of aaron, & *þer*fore hit signifieth *þ*e grettist grenehede of hym *þ*at is *þ*e grete grenehede of the feith of *þ*e Trinite. Seynt Iohn seith in *þ*e appocalipce *þ*at emeraude is *þ*e first stone vnder *þ*e veray kyngdome, & *þer*fore hit signifieth feith of þe iiij eu*a*ngelistes, & also seith vs seynt Iohn *þ*at bestes *þ*at be named gryffons *þ*at kepen *þ*e emeraude vppon the flom of paradys in *þ*e land of syre; & *þ*at beest hath iiij fete, the body before & ij wynges in maner of an egle, & behynde in maner of a lyon; & a peple *þ*at arne named aropiles, *þ*at haue but on eye in myddes of *þ*e forhede, comen to seche *þ*e emeraude all y-armed on *þ*e water, and taken hem, & *þ*e bestes aforeseid co*mm*en rennyng & fleynge & wolden take *þ*e aropiles to *þ*eire powere, & much anguysshen hem, & harde is to take hem. The fyne emeraude [is] clene & gentile. Þe grenes signifieth *þ*e grete grenehed *þt* may not flitten, *þt þ*e gode p*at*riarches & pr*o*phetes haden so grete blisse of heuene all *þ*ei *þt* ben in *þ*is grenehed in *þ*e feith as seynt Iohn was, *þt* seith *þ*at *þ*ei *þ*at haue not but oon / eye, *þ*at is Ihe*s*u Xrist. The aropiles *þ*at comen to seche the emeraudes armed *þ*at feighten with *þ*e gryffons, *þ*ei ben veray cristen men; the gryffons signifien *þ*e deueles to whom thei feighten ayeins. All thise thynges shulde *þ*ei haue in my*m*nde þat beren emeraudes.[103]

The significance of *Emeraude* is drawn equally from its colour, the canonical placement of the stone as taken from the Scriptures, and also the fabulous account of the griffons and the aropiles, which is ascribed to St. John. The non-biblical account of the griffons and the aropiles is given a Christian interpretation (*interpretatio Christiana*) – never

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[102] Cf. Peter Kitson, "Lapidary traditions in Anglo-Saxon England: part II, Bede's *Explanatio Apocalypsis* and related works," *Anglo-Saxon England* 12 (1983), 86.
[103] *London Lapidary* [Bodl., Douce 291] §III, EML 20-21.

questioning its historical or doctrinal validity – and brought into Christian service[104] – just as, in the same interpretive vein, griffons were popularly interpreted as symbols of the two natures in Christ within medieval bestiaries.

The same is seen in relation to ancient Roman camei that were known to have been unearthed during the later Middle Ages.[105] The images were believed to be natural images carved in stone by the Creator through the mediating influence of the stars.[106] Each image was interpreted as representing a Christian figure rather than images of a pre-Christian past. "The triple Bacchic mask of the Roman stage was revered as the Trinity ... every veiled female head passed for a Madonna or a Magdalene ... Isis nursing Horus could not but serve for the Virgin and the Infant Saviour.... Thalia holding a mask in her hand, by an ingenious interpretation becomes Herodias carrying the Baptist's head, and the skipping fawn, her dancing daughter, and as such appears in a seal of the fourteenth century with the allusive motto, 'Jesus est amor meus.'"[107] Caracalla's head, with its curly locks was taken as an image of the Apostle Peter, the monks of Durham though the head of Jupiter

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[104] This is a common element of the medieval world which could be seen as early as the 'christianization' of the literary piece Beowulf. See Francis Peabody Magoun Jr., "On Some Survivals of Pagan Belief in Anglo-Saxon England," *The Harvard Theological Review* 40 (1947): 42.

[105] See Middleton, 122; also Henig, 198. Smith describes the same practice as a forced and curious phenomenon rather than as a characteristic of the general medieval world-view. He writes "... in the course of time, the incompatibility of these pagan representations with Christianity became more palpable, we find them explained in a very forced and curious manner, under a Christian signification." Charles Roach Smith, "Medieval Seals set with Ancient Gems," in *Collectanea Antiqua (etchings and notices of ancient remains)*, volume four (London: J Russel Smith, 1857), 69-70.

[106] "This, therefore, is clear [evidence] that the shape of a simple picture is sometimes [made] by nature." Albert Magnus, *De mineral*. II.iii.1. Wyckoff, 128. "As, in the course of time, the incompatibility of these pagan representations with Christianity became more palpable, we find them explained in a very forced and curious manner, under a Christian signification." Smith, 69-70. Cf. also Henig, 198. George Kunz relates that "the ignorance in the Middle Ages of the art of gem-engraving often induced the belief that engraved stones were the work of nature." Kunz, 268.

[107] King, 118.

Fulgurator was that of St. Oswald and used it for their common seal, the agate cameo 'the Apotheosis of Augustus' was taken to be an image of the glory of Joseph in Egypt, "whilst another noble work, the 'Dispute between Neptune and Minerva,' where a tree encircled by a vine (easily mistaken for the serpent) occupies the centre of the group ... had been displayed as the picture of Adam and Eve in Paradise."[108] In addition to demonstrating the limited popular knowledge of ancient Greece and Rome histories,[109] this illustrates the extent to which a Christian awareness and hermeneutic of the world had spread throughout the vernacular culture. It also points to the extent with which the concept of divine vestiges was received within vernacular society. That people would interpret camei as divine signatures throughout creation also illustrates something of the vernacular beliefs regarding the relationship of God to humanity. It illustrates an assumption that God leaves signs and wonders – vestiges – like a trail of so many breadcrumbs scattered throughout creation as reminders of both His presence and His providence within the world.[110]

Another salient element within the lapidary texts is the persistence of pagan or pre-Christian ideas.[111] Just as natural and fabulous materials were interpreted through

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[108] Ibid., 119.

[109] Cf. Henig, ibid..

[110] "Deu de cel omnipotent, | Ki tut guverne bonement, | Tutes choses voüt crier | Pur sa grant bunté demustrer. | Da sa vertu plus unt partie | Parole, herbe e perie" *Second Anglo-Norman Lapidary*, Prologue A, ll. 1-6. ANL, 118.

[111] This dimension of medieval spirituality has been noted as a general trait by Vauchez in *SpMW*, 25. Cf. also the following comments by John T. McNeill, "We may justly suppose that innumerable individuals in the sacrament of penance turned from the abominations of the heathen. But in the masses of the population the ancestral habits were not to be overcome. Folk-paganism was a hydra which no weapons of ecclesiasticism could slay." John T. McNeill, "Folk-Paganism in the Penitentials," *The Journal of Religion* 13:1 (1933): 465. McNeill suggests that it was the superstructure rather than "the foundation of paganism that was destroyed. Elemental paganism survived in the loyalties, rites, customs, and beliefs of the country folk, and it sturdily withstood the

distinctively Christian eyes, a number of pre-Christian ideas also persisted within the vernacular culture of the day.[112] The pragmatic orientation of medieval piety is but one indicator of this broader vernacular approach to religious concerns that characterized much of the pre-Christian religious convictions throughout Europe. Describing the tenor of pre-Christian religiosity, Davidson comments saying that, "it seems from the available evidence that one of the strongest elements in the approach of both Celtic and Germanic peoples to the supernatural world was the desire to obtain luck in future enterprises and in everyday life."[113] Thomas DuBois, in his study of early Nordic religions unfolds this concept of 'luck' further. He explains in terms of the same pragmatism that we have already noted within the lapidaries. He writes that

> Within the corpus of charms presented in various sources, it is difficult to distinguish between procedures intended to cure specific physical ailments (what westerners today might define as medicine) and broader attempts to maintain or regain luck. Good fortune in life figures as an overarching category, in the context of which the maintenance or loss of health is merely a symptom of the broader state of affairs. If one loses luck, one's cattle or

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pressure of the Church and State... old pagan festal seasons, were tenaciously maintained against all authority." John T. McNeill & Helena M. Gamer, *Medieval Handbooks of Penance*. (New York: Octagon Books, 1965), 39. In the same volume, he also states that "the penitentials add to the evidence supplied from other sources for the fact that in popular belief and custom medieval Christianity was intermingled with a large residuum of paganism." Ibid., 43. Charles Smith similarly states that paganism "had become to deeply engrafted in the popular mind to be suddenly rooted out." Smith, 65. Also Kieckhefer, 54.

[112] Cf. H.R. Ellis Davidson, *Myths and Symbols in Pagan Europe: Early Scandinavian and Celtic Religions*. (Syracuse: Syracuse University Press, 1988), 138. Cf. also Timothy Daalman's comments that "Christian ideas did not dominate medicine." Daalman, 284. Indeed, Brooke & Brooke, 63-4, relate that Christian churches were often built on pagan sites during the Middle Ages leading easily to practical and conceptual associations between the old religious practices and the new.

[113] Davidson, 134. Cf. also Lynn Thorndike's comments regarding medieval man: "Man often had to decide between two or more courses of action, apparently equally pleasing and advantageous or displeasing and disadvantageous. Should he turn to the right or to the left; should he begin his journey to-day or to-morrow? The thought probably came to him that one of these directions, one of these days, would in the end prove more advantageous than the other, though at present he could see no difference between them. One must be lucky, the other unlucky." Thorndike, 31.

kidneys may fail; if one maintains luck, all aspects of one's life will proceed smoothly.[114]

If the pragmatic orientation of the lapidary texts were not enough to illustrate this point, a clear reference within the German lapidary of Volmar, which directly relates the virtue of stones to the obtaining of 'luck', serves to confirm the connection.[115] Discussing the benefits of the stone *dîamant,* Volmar's lapidary states that as long as it is worn on the finger, that it grants 'luck' and health (*heil*) to its bearer.[116] Linguistic barriers notwithstanding, this reference connects the pagan notion of 'luck' to the 'virtue' ascribed to stones. Magoun similarly connects the two concepts. He notes that the Nordic concept of 'luck' was tied semantically to a number of other Old Norse words including *máttr* and *megin,* both of which can be translated as "strength," as well as the concept of *fylgja* or a person's individual or "guardian spirit."[117] The connection from Volmar's lapidary further suggests that the Middle English concept '*ver*tu' could be added to Magoun's list of terms that are cultural synonyms for this concept of 'luck.'[118]

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[114] DuBois, 111. Cf. also ibid., 94.

[115] "[The] belief in lucky times, places and actions was magic. For such times, places and actions were magical as truly as the cloak that is unlike other cloaks or the change that differs from other changes." Thorndike, 31.

[116] "die wîle er treit daz vingerlîn, | und hât gelücke unde heil | und getroumet im niemer teil |daz im schade od übel sî." Lambel, 12:324-327. Nigel Barley notes "The primitive Germanic peoples saw Man as being the focus of divine forces. Central to the problem is the concept of Gothic *hails.* In many ways it was similar to mana. I do not propose to introduce a lot of linguistic material but let us just note the etymological relationship, still preserved in modern English, between the words heal, whole, health and holy. These concepts were still intimately related for the Anglo-Saxons. 'Haelu' was good fortune, material prosperity, health and salvation. It was mediated to Man by king, priest, or certain material objects. Illness was a state of 'unhaelu' where 'un' signifies both a lack of 'haelu' and the presence of a negative 'anti-haelu'." Nigel F. Barley, "Anglo-Saxon Magico-Medicine," *Journal of the Anthropological Society at Oxford* 3 (1972), 69. The same is seen tied to the term *'salu'* within the Anglo-Norman lapidaries which state that "Deus les i mist verraiement | Pur la salu de tote gent." *Alphabetical Lapidary,* ll. 63-64. ANL, 206.

[117] Magoun, 34.

[118] Even as late as 1611 the translators of the *King James Version* of the Bible use the term 'virtue' to translate the Greek word δύναμις in Mark 5:30 and Luke 8:46 in reference to the divine healing

The close connection between lapidary '*ver*tu' and Christian 'grace' as noted in the chapter on the theology of stones, set next to the vernacular pairing of the notions of 'luck' and '*ver*tu,' presents an interesting conceptual triangle within the mindset of vernacular piety. Magoun notes that a connection between 'heavenly grace' and the concept of 'luck' can already be seen in the epic of Beowulf.[119] The connection between 'grace' and 'vertu' is similarly illustrated by the parallel manner in which stones and the consecrated host of the Mass were used in vernacular piety. Just as the virtues of stones were applied to pragmatic concerns of day-to-day livelihood, Peter Browe relates that the consecrated host was often stolen from parish churches or privately taken home from a Mass by the laity and used for any number of purposes ranging from love charms, to fertility rites, protection against poison, and even in death spells.[120] As is clearly portrayed in the lapidary texts, stones were used to address the same concerns as in the vernacular religious quest for 'luck' in daily affairs.

The variety of stones that could be applied to similar conditions may also be a remnant of the experimental nature of pre-Christian religiosity within the vernacular piety of the later Middle Ages. Vauchez states that paganism "did not consist of a corpus of clearly outlined doctrines."[121] Davidson likewise comments that "in the pre-Christian religion there was no obligation to accept a definite creed or even openly to acknowledge

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power of Jesus Christ. The same word is also translated simply as 'power' in Luke 5:17 and 24:49.

[119] Magoun, 40.

[120] See Peter Browe, "Die Eucharistie als Zaubermittel im Mittlealter," *Archiv für Kulturgeschichte* 20 (1930):134-154. Vauchez similarly notes that "as late as the eleventh century, peasants are known to have taken consecrated hosts and buried pieces of them in the ground in order to increase its fertility. Such practices and other similar ones mentioned in the penitentials of the time, doubtless explain the clerics' reservations and their lack of eagerness to give their flocks communion." *SpMW*, 19.

the power of the gods in one's own life. One could abandon a particular cult if one's luck failed."[122] The variety of stones, which could be applied to identical conditions, may likewise be a reflux of this tendency from the pre-Christian past. If one stone did not work, an individual was free to try another, according to what served him best.

The lapidary texts also reveal a popular persistence of traditional concepts of sickness and health.[123] Illness was understood more as the result of external forces influencing the body than that of humeral imbalance.[124] Nigel Barley relates that according to traditional Anglo-Saxon medical theory there are three basic mechanisms which "[enable] the outside to attack the inside." The first is by means of 'flying venoms,' the second is the snake, which in traditional Anglo-Saxon terminology is identified as 'wyrm,' which is the bearer of venom, and the "third source of illness [which] lies in the lesser evil spirits, dwarfs, elves and Christian devils."[125] Daalman notes that 'disease might be attributed to sin, or demons, or the work of witchcraft."[126] Out of this list, venom, demons, and snakes are all specifically addressed within the lapidary literature. Of *Fimionis*, the Peterborough lapidary states that "he *þat* bere*þ* hi*m þer* schal neu*er* no

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[121] *Laity*, 4.
[122] Davidson, 223.
[123] Cf. Daalman, loc.cit..
[124] Stephen O. Glosecki, *Shamanism and Old English Poetry* (New York and London: Garland Publishing Inc., 1989), 119-20.
[125] Barley, 68. See also Jolly, *Popular Religion,* 124 and Audrey L. Meaney, "The Anglo-Saxon View of the Causes of Illness" in *Health, Disease and Healing in Medieval Culture,* edited by Sheila Campbell, Bert Hall, & David Klausner (New York: St. Martin Press, 1992), 14. Elfen disease and malevolent spirits were commonly identified with demonic spirits. See Jolly, *Journal of Medieval History*, 288 and 290, Glosecki, 123, Meaney, 24, and Jacob Grimm, *Teutonic Mythology*, volume three, translated from the Fourth Edition by James Steven Stallybrass (New York: Dover Publications, 1966), 1104.
[126] Daalman, 282.

venym do hi*m* harme;"[127] similarly, *Irachie* protects a man that he not be "bytte*n* wi*th* fleyes, ney*þer* stonge wi*th* bene as Dias sey*þe*; & me*n* suppoȝe*þ* it helpe*þ* aȝe*n*s venym;"[128] of *Noset*, it says that "Ð*is* stone helpi*t* aȝe*ns* byȝty*n*ge*s* of se*r*pe*n*te*s* & of crepy*n*g wor*m*es, & aȝens veny*m*;"[129] and about *Lince* the Sloane lapidary claims that "as soone as Adders smell therof they fley away. It is good against euell spirits and euells."[130] It is interesting that the masses were able to easily and quickly integrate their traditional pagan ideas of health along with the recently introduced Christian and lapidary traditions. Because of this adaptability, vernacular piety consisted of concepts and practices from a variety of historical sources, the pagan, fabulous, and the Christian elements inserted into the lapidary texts, combining freely into a new "synthetic tradition" mediated by the institutions of medieval culture.[131]

Finally, lapidary texts show that there was regional variation within vernacular piety. Brooke and Brooke describe this characteristic of the medieval world as follows:

> Even in a single place at a single time religious life was complex. 'In Venice in the early middle ages, the merchant lived a spiritual life different from the sailor of the same town ... yet both their religions were popular and different from the religion of the learned.' This is no invitation to despair or skepticism, however; it urges us to concentrate our attention on the known and the knowable; and if it obliges us to see popular religion most fully where it is nearest to the religion of the learned and of the hierarch, we shall find copious hints by the way of what else lies hidden from us.[132]

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[127] §79 *Fimionis* [Peterborough, Cathedral 33], EML, 89.
[128] §102 *Irachie* [Peterborough, Cathedral 33], EML, 97.
[129] §131 *Noset* [Peterborough, Cathedral 33], EML, 112.
[130] §34 *Lince* [B.M., Sloane 2628], EML, 130.
[131] Karen Louise Jolly notes that while "it may be of interest to the modern scholar to trace the pagan, Anglo-Saxon, and Christian origins of these remedies, we need to recognize that the remedies existed in their own time as integrated wholes, without any self-consciousness of a conflict of traditions or beliefs." Jolly, 170.
[132] Brooke & Brooke, 61-62.

This variation is likewise seen an element of the vernacular fascination with stones as attested to within the lapidary literature. John Riddle observes that "far from relying entirely on classical authorities, the lapidarists often felt obligated to relate their own experiences about the wonderful effects of stones."[133] The Peterborough lapidary, for instance, suggest a strong reflux of pagan traditions about health in that place, whereas there was a greater degree of Christian awareness within the vernacular culture in the surrounds of London; the German peoples were more concerned with matters of health and the fantastic, while the Anglo-Norman territories dabbled in the astrological;[134] the Spanish lapidaries reflected more of the learning of the Arab world;[135] and Icelandic culture was more narrowly focused on the pragmatics of health,[136] all while the academics were fascinated with the details and practical application of divinely given virtues as illustrated within the scientific and encyclopedic lapidaries. Regional variation is also seen in the number of stones listed in the various lapidaries. This may either suggest a regional variation within the popular interest in stones or simply reflect the extent and distribution of the variety and availability of magical stones within a given place.

Popular Spirituality

"Starting in the twelfth century, the attitude of western man toward his spiritual destiny began to change. No longer resigned to being the plaything of obscure forces, he

[133] *Litho*, 50.
[134] ANL, 260-296.
[135] Evans, 38.
[136] Jacob Dybwad, *An Old Icelandic Miscellany* (Oslo: I Kommisjon Hos, 1931), 44-45, 109-110, 195, 218-222.

undertook to react against them."[137] Vauchez relates that "the masses emerged from their passivity and aspired to play an active role in the religious domain."[138] "With the advent of the crusades, fighting infidels, and later heretics and other enemies of the Church became the new duty (*officium*) of the laity (*ordo laicorum*)."[139] This emerging piety, which engaged the laity in a religious vocation as a true order of the Church, can be referred to as a 'spirituality of combat'. The rises of the Order of Templars and the call to arms in the Crusades are but two examples of this development in the vernacular piety of the Middle Ages.[140] As Hildburgh notes, "where there are beliefs in potentially evil-working beings, there are devices for propitiating them or, far more often, for frightening them away or for inflicting harm on them."[141] With the threat of Muslim invasion, waves of devastating plagues, and the growing belief in the imminent return of Christ to judge the world, the laity emerged on the scene with an aggressive spiritual attitude directed toward the taking of heaven by force. The lapidaries illustrate that stones too were recruited among the tools and weapons of the people to help them 'fight the good fight' against the malevolent forces within the world[142] and through divine 'luck,' take back the blessed

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[137] *SpMW*, 167-8. Brooke & Brooke also note a shift of themes within the homiletical literature of the late Middle Ages. "There is a notable change within the medium in the preacher's theme and emphasis. Judgment and penance and the fear of hell were dominant in the 10th and 11th centuries; in the 12th and 13th a new spirit takes over, the preaching of the good Christian life and of practical morality to lay men and women whose destiny is by no means so gloomy as before." Brooke & Brooke, 124-5.

[138] *Laity*, 44.

[139] *Spirituality*, 72. Also *Laity*, 15.

[140] See Brooke & Brooke, 49, 56-8.

[141] W.L. Hildburgh, "Psychology Underlying the Employment of Amulets in Europe," *Folklore* 62 (1951), 239.

[142] Consider §34 *Lince* [B.M., Sloane 2628], EML, 130 which could be used to defend against both sickness and evil spirits. Cf. Daalman, who comments that the popular "reliance on the supernatural also stemmed from the ineffectiveness of medicine in this period, especially during times of epidemics." Daalman, 281.

state by force. But what exactly constituted the 'blessed state' to which the masses aspired?

While the hierarchy of the church emphasized, by force of sacred Tradition, an 'inward' Augustinian conception of the blessed state, a new 'materialist' psychology "constructed on the physical structure of natural man,"[143] which viewed the human being from the perspective of Galenic humeral theory,[144] increasingly emerged on the scene.[145] At the same time, there was a "shift away from cosmic expectation to personal piety, "from the salvation of mankind as a whole to the deliverance of the individual."[146] As Vauchez notes, the "religious life came to be perceived as a solitary quest for union with God."[147] Laity and religious people alike began searching more and more for immediate and intimate contact with God.[148] Vernacular piety, as illustrated within the lapidary texts, stands at the confluence of these two developments.

The 'blessed state' is consistently portrayed within the lapidary texts as *heil*, *salu*, 'wholeness' and physical health resulting in a moral existence, for which the divine power

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[143] Colin Morris, *The Discovery of the Individual 1050-1200* (Toronto: University of Toronto Press, 1987), 79.

[144] "By the side of this psychology of the affections there grew up another school of psychology which was eventually to displace the Augustinian scheme entirely. It, too, stressed the study of the passions and affections, but it rested more on the recovery of classical science and less on self-observation; basically, the analysis of the mind was being attempted on the analogy of physical medicine." Ibid., 77-78. "Just as all law is one, so is all disease. No matter what form the symptoms may take, all disease has its origin in the same source, disruption or imbalance of the fluids or 'humors' of the body." Alford, 386.

[145] M.D. Chenu, *Nature, Man, and Society in the Twelfth Century*, edited and translated by Jerome Taylor and Lester K. Little. (Toronto: University of Toronto Press, 1997), 34.

[146] Morris, 152.

[147] *Laity*, 231. "As piety underwent a process of individualization and religion became more personal, the life of the spirit ceased to be the privilege of monks." *SpMW*, 153.

[148] Ibid., 145.

within stones could be employed to attain and maintain a balanced subsistence.[149] Even the sidereal influence of the stars, which governed and directed the whole of terrestrial sphere could be harnessed and directed by means of precious stones.[150] Great claims are made within the lapidary texts – not only regarding health and social encounters – but also regarding the life of faith. The Peterborough lapidary boasts that for the person who carries *ametist* "no euel spret schal haue pover to do*n* hi*m* harme; nei*þ*er he schal haue no yuel dremy*n*g any3t; … nei*þer* he schall be p*r*isoned ne dy w*ith*oute repe*n*tau*n*s of his misdedes."[151] Yet even without this one stone, the commoner of the Middle Ages would still have a veritable army of stones (not to mention herbs and incantations) at his disposal with which he would be able to shape his moral and mortal existence by the powers therein contained. For the common man, sanctity was understood to be rooted in personal wholeness, which included physical, social, cosmic, and moral dimensions.[152] Precious stones took their place within the arsenal of the masses to help them take this 'blessed state' by force.

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[149] True health "involves the ancient idea of maintaining a harmony, a balance, or correct measure in the various aspects of human life. When this kind of harmony exists, a person is said to enjoy health… [which] involved striving for harmony with God, for inner spiritual harmony, for balance among the physical humors, for concord between the soul and the body, and for harmony between human beings and the cosmos." Walter-Moskop, 19. See also Alford, 387. Health was understood to depend on an integration of continuity among the physical and spiritual realms in both the cosmic and human levels of reality that can be established through the use of the various media that communicate the healing power of God within the created world. Cf. Walter-Moskop, 23. See also Alford, 390.

[150] Thorndike notes that there was an abiding belief in astrology as foundational to the workings of the created world. See Thorndike, 12-13.

[151] §15 *Ametist* [Peterborough, Cathedral 33], EML, 70. Cf. *SpMW*, 168 where Vauchez relates the penitential climate of the late Middle Ages. He writes "In this new spiritual climate, freedom, and especially the Christian's personal responsibility, were much greater. He was able to take an active part in his own salvation and to win heaven, so to speak, by the sweat of he brow. In particular, he could prepare for the final judgment by resorting to the sacrament of penance and by encountering Christ in the poor."

With a 'spirituality of combat' came also a growing curiosity of the inhabited world. Vauchez relates that "in a world where all except for a tiny minority led a precarious existence and everyone suffered from endless waves of invasions, the consciousness of belonging to a specific population" took precedence.[153] As pilgrims came back from the Crusades they brought back not only stones and relics, but also stories of foreign peoples and foreign lands.[154] The growing self-identity of the masses expressed itself in a popular curiosity of the hitherto unknown world and eventually lead to the colonization of the Americas. This popular curiosity appears also within the lapidary texts where geographical references are scattered throughout. Some of the territories mentioned in the lapidary texts include Ethiopia,[155] India,[156] Arabia,[157] Macedonia,[158] Egypt,[159] Libya,[160] Syria[161] and Africa[162] among many others. Mention of lands and territories within the lapidary texts provided opportunity for the masses to participate in this exploration of the world as well as speculate about the virtues and wonders that God had hidden in these distant places. In this way, the vernacular lapidaries provided an opportunity for the popular imagination to ponder the wonders of the world as well as provided the occasion for people to hold and possess some of these wonders in the tokens

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[152] See *Laity*, 48-9.
[153] Ibid., 28.
[154] C.W. King, 124-26.
[155] §10 *Crisolyte* and §26 *Elyscrope* [Bodl., Add. A 106], in EML.
[156] §12 *Berill* and §14 *Crisophas* [Bodl., Douce 291] in EML.
[157] § 11 *Onicles* and §17 *Diamaude* [Bodl., Douce 291] in EML.
[158] §139 *Piante* and §140 *Prassio* [Peterborough, Cathedral 33] in EML.
[159] §130 *Marble* [Peterborough, Cathedral 33] in EML.
[160] §63 *Disparea* [Peterborough, Cathedral 33] in EML.
[161] §3 *Emeraude* [Bodl., Douce 291], EML, 20.
[162] §26 *Elyscrope* [Bodl., Add. A 106], in EML.

of individual stones. Thus, in addition to a 'spirituality of combat,' the popular piety of the Middle Ages could also be dubbed a 'spirituality of exploration.'

Excursus on the Transmission of Lapidary-Knowledge

A curiosity of medieval stone-lore is how quickly it was received and dispersed throughout medieval European society. Because of this, it is worth paying brief attention to the avenues it may have used. In discussing the dissemination of cultural traditions, Robert Lopez states that "unquestionably the elementary vehicle for cultural diffusion is language"[163] which he points out, may be either written or spoken. Robert Lopez suggests that the broadest channels for the transmission of cultural ideas in the Middle Ages were oral and vernacular.[164] Carl von Sydow outlines four primary channels through which popular traditions disseminate through a culture. He lists *popular poetry* in which he includes the *popular ballad, popular belief, popular medicine*, and *customs and beliefs connected with work.*[165]

The written text was the initial vehicle through which classical lapidary knowledge entered into the culture of the Middle Ages.[166] Beginning with Marbod's text, lapidary knowledge diffused throughout the full breadth of European society, capturing the imagination of scholars, clerics, and commoners alike. Composed both in Latin and

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[163] Robert S. Lopez, "The Practical Transmission of Medieval Culture" in *By Things Seen: Reference and Recognition in Medieval Thought*, edited by David L. Jeffrey. (Ottawa: University of Ottawa Press, 1979), 125

[164] Ibid., 129.

[165] Carl von Sydow, "On the Spread of Tradition" in *Selected Papers on Folklore: Published on the Occasion of his 70th Birthday* (Copenhagen: Rosenkilde and Bagger, 1948), 22-23. Hildburgh, 235, points to custom, religion, and literature as the cause for the persistence of popular religiosity within a society.

vernacular tongues, these written lapidaries provided access to reference materials for people throughout medieval society. Encyclopedic lapidaries, for example, were used as textbooks for training in universities.[167] Printed manuscripts were an important source for the transmission of lapidary knowledge throughout medieval Europe.

John Riddle notes, however, that the medieval lapidary was a highly creative literary form freely incorporating the insights and experiences of individual writers.[168] This creative variation within the lapidary texts shows that belief in the powers and virtues of stones was a dynamic element within the oral culture of the day. When one considers that many of the vernacular lapidaries were written in poetic verse, the particular literary genre of the texts themselves can also be seen as contributing to the cultural distribution of their contents. Von Sydow points out that poetry and music can be a bearer of tradition within a society. He comments that "*Popular Poetry*, in particular the *Popular Ballad* delights its listeners not only by its contents, but also by its form, and thus makes great demands on accurate memory, at the same time as rhythm and rhymes serve, to an extent, as an aid remembrance."[169] Like a children's ditty or modern day television jingle, the poetic form of verse lapidary texts would have lent itself to singing or rhythmic chanting and on account of this, to an easy committal to memory. Singing or rhythmic chanting would have contributed greatly to the dispersal of lapidary knowledge far and wide

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[166] "Literature, too, helps towards the perpetuation of beliefs in certain things as being amuletic." Hildburgh, 235. Cf. also Daalman's comments "The importance of source-books in the vernacular highlight an informal, yet critical, aspect of the monastic tradition." Daalman, 283.
[167] Evans, 91.
[168] *Litho*, 50.
[169] Von Sydow, ibid., 22. Lopez similarly notes that vernacular music served as an important medium for the transmission of popular culture. See Lopez, 129 and Jeffrey, 147.

throughout the population.[170] If not the lapidaries themselves, then certainly the hymnic materials like Richardoune's "Hymn of Christ vpon the cross" and Hildegard's antiphon would have been so used. Singing or rhythmic chanting might furthermore have been used as a part of a medical ritual during the specific application and use of various stones.[171]

Ritual associated with *popular medicine* would also have served as a means by which traditional lapidary knowledge would have been transmitted throughout the population. Daalman also notes that "the transmission of monastic medical knowledge and skill was accomplished through apprenticeship.... These compendia were handed down either by word of mouth, or in jottings and recipes."[172] Von Sydow describes how "persons who have had an occasion to apply a certain treatment for a complaint will not only take note of the cure, but will later on assist their neighbours with the same treatment when required."[173] The ritual nature in which stones were used would have lent itself to easy imitation, in turn, unleashing a wealth of lapidary knowledge throughout the general populace.[174]

The force of *popular belief* shared at the workplaces of the cloister and the marketplace undoubtedly also contributed to the dissemination of lapidary knowledge throughout European civilization. Lapidary knowledge was also made available to people

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[170] Lopez notes that vernacular music served as an important medium for the transmission of popular culture within Franciscan circles. See Lopez, 147. Music certainly served as a powerful force in popularizing the teachings and ideals of the Lutheran Reformation in the sixteenth century.
[171] "Anglo-Saxon ritual magic and poetry are not so distantly related as scholars have supposed." Judith A. Vaughan-Sterling, "The Anglo-Saxon *Metrical Charms*: Poetry as Ritual," *Journal of English and Germanic Philology* 82 (1983), 199-200.
[172] Daalman, 283.
[173] Carl von Sydow, 23.
[174] "Tremendous power may be exerted by mass-belief, whether through suggestion by precept or by example—or, conceivably, through some psychical action whose effect we may percieve

through resource people within the community.[175] Clerics, monastics, and mendicant preachers are all known to have possessed a basic knowledge of stones and their virtues and did employ them for the benefit of the people.[176] This is known for instance to have been the case with Hildegard of Bingen[177] as well as the priest and humanist philosopher Marsilio Ficino[178] who are both recorded as having been active in applying various medicines and cures in the regular course of the care of their spiritual flocks. Indrikis Sterns similarly demonstrates that medical knowledge was carried throughout Europe and the Levant and applied in the care for the sick by various lay and religious orders during the time of the crusades.[179] Lapidary knowledge would undoubtedly have been a part of the body of knowledge that they carried with them. After all, "ministering to the sick is, above all else, an act of Christian charity: and the motivation for the whole medical profession may be found in the commandment, 'Love thy neighbor.'"[180] Vauchez similarly

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without at present being able to discern clearly its cause." Hildburgh suggests that 'custom' and 'ritual' have a larger role to play in the transmission of folk-knowledge. Hildburgh, ibid.

[175] Hildburgh relates that 'religion' has a formative influence on the perpetuation of specific beliefs. Hildburgh, ibid. Cf. Daalman, 283.

[176] Kieckhefer, 57, 63.

[177] Cf. Walker-Moskop, 19-25.

[178] "In his *Apology*, addressed to three Peters, Nero, Guicciardino and Soderino, and dated September 15, 1489, he defends himself against those who ask what concern he, as a priest, has with medicine and astrology, or, as a Christian, with magic and images. He replies successively through the mouths of the three Peters mentioned that the most of the ancient priests were also physicians and that Christ, who bade his disciples go throughout the world curing the sick, likewise bids priests, if they can not heal with words as these once did, at least to heal with herbs and stones. And God who through the influence of the heavens directs dumb animals to appropriate medicines, will surely permit priests to practice astrological medicine." HMES IV: 563.

[179] See Indrikis Sterns, "Care of the Sick Brothers by the Crusader Orders in the Holy Land," *Bulletin of the History of Medicine* 57 (1983): 43-69.

[180] *Laity*, 22-23. Linda Voigts comments that monastic medicine was "therapeutic rather than simply custodial in nature." Voigts, 254. In discussing medieval medical practice, John Alford further points out that "writers are careful to point out, however, that by himself the physician can do nothing. Like a priest, he is simply an agent of the divine will. Just as it is God, and not the priest, who forgives sin, so it is God, and not the physician, who restores the body to health. In the memorable words of the sixteenth-century physician Auguste Paré: 'I dressed his wounds: God

points out that care for the sick emerged as an aspect of medieval piety.[181] Given the broad and various medical benefits communicated through stones, the emerging piety of the laity would have espoused the vocation of charity expressed in medical care as taught and practiced by the various cloisters and religious orders of the day.

Conclusion

The broad distribution of lapidary literature in the late Middle Ages points to the popularity with which the belief in the magical and medicinal virtues of stones was received within medieval society. Forged in the crucible of town and village, the popular lapidary emerged as a creative and dynamic literary form, unveiling aspects of the vernacular piety as it was lived within late medieval society. These vernacular lapidary texts reveal a piety of the people, which is rooted in a popular *exemplarism*, lived in the home and marketplace, and oriented toward pragmatic concerns of physical health and social well being. Integrating elements of Christian teaching, classical antiquity, as well as pagan traditions, vernacular spirituality was a dynamic and creative synthesis.[182] The

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healed him.'" Alford, 390-91. Cf. also Alford's comments that "a teacher cannot guarantee wisdom or knowledge; a lawyer cannot guarantee justice; and a physician cannot guarantee health. These are all gifts of God." Ibid., 394.

[181] *Laity*, 22-23.

[182] Cameron, 211, relates that "there was a broad spectrum of magical materials available to the Anglo-Saxon physician, drawn both from his ancestral pagan Teutonic background and from the Mediterranean culture introduced by Christian missionaries, and the two were blended into a more or less coherent whole by their Anglo-Saxon users."

manuscripts likewise give indications on the manner in which this lapidary knowledge was transmitted throughout medieval society.

CHAPTER SEVEN

CONCLUSION

Marvin Owings states that "the literature of any period is the product, directly or indirectly, of the age which produced it."[1] This is certainly the case with the corpus of medieval lapidary texts whose geographical, linguistic, and social distribution reveals the width and breadth of medieval society within which the fascination with stones was distributed and received. Not only do the lapidaries illustrate the beliefs of medieval society regarding the virtues of stones and how they were used and applied in the day-to-day lives of "historically determined human beings,"[2] but also provide an opportunity to study both the presence and interaction of both deliberative and embedded streams of thought[3] within the social and intellectual world of the Middle Ages. The lapidaries reveal that stones were clearly objects of fascination not only in the academies and the cloisters but also in the villages among the common folk alike.

Due to the unique distribution of popular interest, medieval lapidary literature provides an unparalleled vantage point from which to study the piety and world-view of the later Middle Ages. The breadth of medieval lapidary literature encompasses not only reflections of medieval society, but also the breadth of academic enquiry from the vernacular to the scientific, from the popular to the theological. As such, lapidary texts

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[1] Marvin Alpheus Owings, *The Arts in the Middle English Romances* (New York: Twayne Publishers, 1952; reprint New York: AMS Press, 1971), 17.
[2] *SpMW*, 9.

are artifacts that illustrate a broad cultural synthesis of scientific thought, religious piety, and vernacular beliefs which provide a rich and fertile ground in which the religious life and culture of the Middle Ages can be studied.[4] With this broad synthesis comes also a broader window through which the Middle Ages can be viewed and better understood. Like an icon, which for the Byzantine monk, affords a window of perception to heaven, the lapidary text provides for the medievalist a window through which the breadth of medieval piety can be examined – from the vernacular to the academic – allowing him to gaze into the depths of history and to contemplate the life of another world and another time.

Contrary to modern sensibilities which would like to relegate lapidaries and their contents to the realm of the fabulous, the lapidary literature demonstrates that the medieval fascination with stones was far from a 'little tradition' within the world-view of the Middle Ages. The broad distribution of lapidary literature and hymnic texts quickly dispels this notion. Lapidary texts emerged not only in the vernacular, but also from the universities, the encyclopedists and even appearing in theological and religious circles. With such a wide distribution both socially, geographically, and linguistically, it is hard to conceive of lapidary-lore as being a minor tradition stratified within the broader medieval world. Contrary to the approach of Robert Redfield, lapidary texts themselves demonstrate that the medieval fascination with stones was a unified synthesis which stretched across the width and breadth of medieval society.

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[3] Howard W. Stone and James O. Duke, *How to Think Theologically* (Minneapolis: Fortress Press, 1996), 13-16.

[4] Richard Kieckhefer, *Magic in the Middle Ages* (Cambridge: Cambridge University Press, 1989), 2.

These lapidaries paint a picture very different from a stratified social setting with currents and undercurrents flowing to and fro. Instead, the lapidary literature reveals a view of medieval society that may be compared to a rich tapestry with many interwoven themes that intermingle freely across the breadth of its fabric. These themes both emerge from and are supported by the three pillars of Aristotelian science, Christian theology, and the vernacular concepts rooted in pre-Christian world-views. Each thread intermingles freely, as Karen Jolly notes, "without any self-consciousness of a conflict of traditions or beliefs"[5] to form the rich tapestry of medieval culture.[6]

Clearly then, the corpus of medieval lapidary texts is unique in the opportunity that it presents to modern scholars of the Middle Ages. Not only does it provide information regarding medieval traditions of medicine, early pharmacology, nascent mineralogy, and esoteric traditions as have already been studied, but it also provides a window on the scientific and theological culture of the day and how they interact with the force of traditional vernacular conceptions of religion. It straddles not only medieval intellectual culture, but also that of piety and the practical concerns of day-to-day living. The lapidary literature provides a fertile ground from which to study the interaction between the intellectual currents, vernacular beliefs, theological tenets, emerging sciences, religious pieties, and every-day human concerns and considerations of later medieval society, and the further opportunity to examine the emergent synthesis of how it came to be lived by "historically determined human beings."[7] It offers a rich opportunity for students of

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[5] Karen Louise Jolly, *Popular Religion in Late Saxon England.* (Chapel Hill: The University of North Carolina Press, 1996), 170.
[6] "Life appeared to them as something wholly integrated." Umberto Eco, *Art and Beauty in the Middle Ages*, translated by Hugh Bredin (New Haven: Yale University Press, 1986), 16.
[7] *SpMW*, 9.

intellectual history to study the interaction of embedded and deliberative beliefs within the context of later medieval society. It provides an image of "religion as it [was] lived: as human beings encounter, understand, interpret, and practice it."[8]

What is clear from the body of recent studies in lapidary texts is that lapidaries have not been studied to their full potential. The fundamental difficulty, which has limited these modern studies, is the persistent failure to recognize the cultural significance of the lapidary texts as the context in which they must be studied in order to unfold their full significance. It is evident from the texts that there was a popular and widespread fascination with stones and their ascribed virtues. This fascination clearly stretched from the academy to the cloister, and from there, to the highways and byways of vernacular concerns. As such, the lapidary literature offers a truly unique synthesis within the corpus of medieval source texts providing a broad cross-sectional view of the social, religious, and intellectual world of the Middle Ages. The corpus of lapidary literature does not represent a fabulous undercurrent of naïve, primitive, or peripheral ideas to the world-view of medieval culture. The linguistic, social, and geographical distribution of the texts themselves stands in damning witness against this feeble opinion. Rather, lapidary texts are the products of a vibrant and pervasive medieval belief in the powers and virtues of stones. As such, the corpus of medieval lapidary texts remains an untapped source for the study of the medieval world. This untapped potential warrants a renewed interest and study.

Joseph Frank Payne stated the matter well at the turn of the twentieth century. He wrote that "the only way to understand these old writers is to try to put ourselves as far as

[8] Leonard Norman Primiano, "Vernacular Religion and the Search for Method in Religious

possible in their place, and conceive how nature and science presented themselves to the eyes of the early teacher and learner" as they tried to understand the wonders of nature. "That they tried to understand them at all is a proof of their wisdom, not of their folly."[9] This is certainly true of the medieval lapidarists and the masses of people who read and used the lapidaries both in the cloisters and in their homes. While modern individuals may question the medieval belief in the magical powers of stones, it behooves us to stop and marvel at the beauty of the living synthesis which emerges within the medieval melting-pot of daily life, religious spirituality, scientific understanding, and vernacular thought. Volmar summarizes this medieval synthesis well in the conclusion of his *Steinbuoch*.[10] Thought he speaks directly of stones and their virtues, his sentiment can equally be appropriated and applied to our appreciation of lapidary texts and the insights into medieval life and society that they offer.

Hie hât diz buoch ein ende.	Here does this book come to an end.
got müez in iemer schenden,	God must always chastise
der edeln steinen iemer mêre	him who ever speaks dishonourably
spreche deheine unêre.	about precious stones.
ob ir dehein sô bœse sî	Even if you are so wickedly inclined
den müeze got êren lâzen vrî	God allows their honour free course
über al die kristenheit.	throughout all of Christendom.
wan er hât sîn kust an si geleit	For He has forged His craft in them
daz vil manegem künne	that they work great wonders,
si geben grôze wünne.	they give great joy.

Folklife," *Western Folklore* 54 (January, 1995), 44.

[9] Joseph Frank Payne, *English Medicine in the Anglo-Saxon Times* (Oxford: The Clarendon Press, 1904), 38-9.

[10] Volmar's *Steinbuoch* ll.999-1008 in Lambel, 31-32.

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