

LEIBNIZ, LOCKE, NEWTON AND THE KABBALAH

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IN THE FALL OF 1614 A HUSHED AND EXPECTANT CROWD watched Jan Baptista van Helmont, one of the greatest chemists of his age, carefully place a pinch of saffron colored powder on a scrap of paper, roll up the edges, and throw the tiny package into a crucible containing quick-silver. As the paper shriveled in the heat, the molten metal hissed, bubbled, and suddenly congealed into nine and three quarter ounces of the purest, brightest gold.¹ A short while later van Helmont's youngest son was born and christened simply "Mercury" to commemorate the extraordinary event. Mercury was hardly an ordinary name, signifying as it did for all alchemists the precious, mysterious matter, the philosopher's "mercury" and tool of transmutation, and calling to mind the very founder of the art of alchemy, Hermes, or Mercurius, Trismegistus.

The mysterious associations of his name clung to the younger van Helmont throughout his long life. His contemporaries believed he was one of the fortunate few to possess the philosopher's stone and elixir of life, for how otherwise could one explain van Helmont's ability to live so well for so long on so little? A less romantic explanation lay in van Helmont's undoubted charm, which made him a welcome guest. By all accounts he was a most engaging character. Just thinking of his good qualities brought tears to the eyes of the Cambridge Platonist Henry More as the two friends were parting after a lengthy visit. "He has a hearte so good, so kind, so officious, so plaine and simple, and so desirous of the publick good," More explained later, "that the consideration of that ... putt me into such a passion of joy and benignity, that I could not for my life keep my eyes from letting down teares. ..." ² As a true Englishman, More calmed his "passion" with a can of Norden ale and a glass of canary, excusing himself by saying that as a chem-

ist van Helmont could draw moisture from flint. Gottfried Wilhelm Leibniz, who knew van Helmont well for many years, shared More's respect and admiration. When van Helmont died, Leibniz wrote the following epitaph:

Here lies the other van Helmont, in no way inferior to his father.

He joined together the arts and sciences and

Revived the sacred doctrines of Pythagoras and the Cabala.

*Like Elaus he was able to make everything he needed with
his own hands.*

Had he been born in earlier centuries among the Greeks,

He would now be numbered among the stars.³

The century into which van Helmont was born was one of stark contrasts: witch burnings and the brilliant mathematical physics of Isaac Newton; John Locke's plea for tolerance and the palpable lack of it; the richness of intellectual and artistic life and the poverty of material life. Yet for all the poverty, insecurity, pain, and superstition, the seventeenth century produced a stunning galaxy of writers, artists, philosophers, and scientists, who laid the foundation for modern culture. To paraphrase Alfred North Whitehead, we are still living off the capital accumulated by seventeenth-century intellectuals.

Much has been written about the crucial role the late seventeenth century played in preparing the way for the Enlightenment. In ways that may never be fully understood Luther and Calvin's view of man as a lowly worm so inextricably inured in sin that he could do absolutely nothing to mollify an angry God or to ensure his own salvation gradually gave way to the optimistic idea that man was in charge of his own destiny as well as the world's. Out of the obscure and confusing mix of mystical, occult, and magical beliefs that characterized so much of the thinking of the early modern period a rationalist philosophy gradually emerged based on the conviction that man was essentially good and reason a noble tool in the inevitable march of progress. The belief in the power and perspicacity of man arose in part from what I would describe as occult and gnostic sources, from alchemy, Hermeticism, Renaissance neoplatonism, and the kabbalah. In different ways each of these philosophies advocated the idea that man could perfect himself and the world.⁴ This is where van Helmont becomes important, for van Helmont was an alchemist and a kabbalist committed to

reform in all areas of life. He translated and published Octavius Pisani's *Lycurgus Italicus*, a remarkably progressive book on penal reform, which anticipated Beccaria's suggestions a century later.⁵ He cogently criticized the medical establishment for its scientific rigidity and social elitism. He entered the political arena as an adviser to Karl Ludwig of the Palatinate (1617-80) and Christian August of Sulzbach (1622-1708), suggesting ways to restore the shattered economies and reduce religious tensions in these two territories devastated by the Thirty Years' War. Van Helmont's published work advocates an ideal of religious toleration that makes inspiring reading to this day – and I mean true religious toleration, especially towards the Jews. Van Helmont's philosemitism was unique because he accepted Jews as Jews and not simply as potential Christian converts.⁶ Yet the major impetus behind van Helmont's zeal for scientific progress, social reform, and religious toleration appears strange from a twentieth-century perspective and requires explanation; for it involved his life-long commitment to the doctrines of the Jewish kabbalah. This commitment is demonstrated by his role in the publication of the *Kabbala denudata*, a collection and translation of the largest number of kabbalistic texts available to the Latin-reading public until the nineteenth century. No less an authority than Gershom Scholem has remarked on the generally high caliber of the translations in the *Kabbala denudata*.⁷ These were made by van Helmont's close friend and collaborator, Christian Knorr von Rosenroth (1636-89), and the work was published in the tiny principality of Sulzbach, some forty miles southwest of Nürnberg, at the Hebrew printing press financed by van Helmont, von Rosenroth, and their patron, Prince Christian August. Because the subject matter of the *Kabbala denudata* appears so esoteric, it has never been appreciated as a significant text for understanding the emergence of modern thought. But within this work one can find the bases for the faith in science, belief in progress, and commitment to religious toleration characteristic of the best aspects of western culture.

Van Helmont and von Rosenroth's intention in publishing the *Kabbala denudata* was to offer Christians a translation of the high points of the Zohar.⁸ The Zohar, along with other kabbalistic writings, came to possess the same attractions for Christians as the Hermetica, the Sibylline Prophecies, and the Orphica. All were thought to contain elements of that ancient, esoteric wisdom that God had imparted to Moses on Mount Sinai, but being Jewish

and not pagan in origin the kabbalah was thought by many to be the pre-eminent source for this *prisca theologia*.⁹ Like their Christian-kabbalist predecessors, van Helmont and von Rosenroth began their work believing that the kabbalah was an irrefutable source for proving the truth and universality of the Christian revelation. By the time they had finished, however, the Christianity they espoused was thoroughly heretical or, one might say, far more Jewish than Christian.

In order to help the reader understand the Zohar, whose text is notoriously difficult, von Rosenroth included lengthy excerpts from later kabbalistic works. He includes Gikatilla's *Sha'arei orah*; Cordovero's *Pardes rimmonim*; an alchemical work, *Esh ha-meza'ref*, which is only preserved in the extracts translated by von Rosenroth; selections from Naphtali Bacharach's *Emek ha-melek*; and an abridged translation of *Sha'ar ha-shamayim* by Abraham Cohen de Herrera. But the largest number of selections came from the Lurianic kabbalah in treatises written by Hayyim Vital and Israel Sarug, disciples of Isaac Luria.

Isaac Luria was born in Jerusalem in 1534 and died in Safed in 1572 at the age of thirty-eight. This presented a problem for his disciples because in Judaism an early death was considered divine punishment for a grave sin. It was suggested that Luria's sin lay in revealing divine secrets to his disciples, a notion which only served to enhance his reputation. Luria wrote little. He admitted that he was incapable of writing down his ideas because every time he picked up his pen he was overwhelmed by visions too complex to channel through a slender quill. Consequently, what is known about his theories comes from his disciples, who do not always agree. But whatever the inconsistencies in the extant versions of Luria's teachings, the Lurianic kabbalah is distinct. Where the Zohar and earlier kabbalistic works concentrate on cosmology, the Lurianic kabbalah focuses on redemption and the impending millennium.

In Lurianic thought exile is both a prerequisite to creation and the cause of evil and sin. Luria reasons that in order for there to be a place for the world, God had to withdraw from a part of himself. This doctrine of *simsum* (withdrawal) was both profound and ambiguous. It provided a symbol of exile in the deepest sense, within the divinity itself, but it also implied that evil was intrinsic to the creation process and not attributable to man alone. Two other doctrines are crucial to Luria's radical theology, the "breaking of

the vessels" (*shevirat ha-kelim*) and *tikkun*, or restoration. Both explained how the evil that emerged with creation represented a temporary state which would end with the perfection of all things.¹⁰

According to the complex mythology of the Lurianic kabbalah, after God withdrew from himself, traces of light were left in the void. These traces were formed into the image of the primordial man, Adam kadmon, who was thus the first manifested configuration of the divine. However, at this point a catastrophe occurred. Further divine lights burst forth from Adam kadmon, but the "vessels" meant to contain them shattered. With "the breaking of the vessels" evil came into the world as sparks of light (souls) became sunk in matter. The implication of this myth of the *shevirah* is that the potential for destruction, hence evil, lay within the Godhead itself.

The most revolutionary aspect of the Lurianic kabbalah is found in the concept of *tikkun*, the mending or correcting of the *shevirah*. Man is given a central role in this process, for it is only through his actions that the souls, trapped among the shards of the broken vessels, can be reunited with the divine light. Luria interpreted history as a constant struggle between the forces of good and evil, in which each successive generation from Adam up to the present participates in the process of *tikkun*. Each time a Jew sins, more souls fall into the abyss, but with each good deed souls are freed. For Luria this mythic struggle between good and evil is played out by the same cast of characters, who experience repeated reincarnations (*gilgul*) until they become perfect. But although the process of *tikkun* will be long and arduous, restoration will eventually occur as each exiled being moves up the ladder of creation, becoming better and increasingly spiritual until finally freed from the cycle of rebirth. Luria's belief in the inevitability of universal salvation was a corollary of his theory that creation occurred through a process of divine emanation. Matter therefore ultimately derived from God and would return to God. In this philosophy spirit and matter do not differ in their essential nature; they are simply the opposite ends of a continuum. Matter is passive, while spirit is active.

The focus of the Lurianic kabbalah on redemption and the millennium had enormous appeal for van Helmont and von Rosenroth, who found in the concepts of *tikkun* and *gilgul* the basis for an impregnable theodicy. By attributing the inequalities, misfortunes, and horrors of life to the faults of previous existences, Luria reaffirmed God's goodness and justice. Human

beings were responsible for their own sin and suffering; but God was lenient and granted every soul the necessary time and assistance to achieve redemption. On the basis of Luria's doctrine of *tikkun* van Helmont categorically rejected the existence of an eternal hell. Punishment was "medicinal"; it was only inflicted on a creature for its own good and improvement.¹¹ This was an extremely unorthodox and unusual view at the time since the fear of hell was considered the only way to keep most people, especially the common sort, in line.¹² The Lurianic kabbalah is important for another reason as well. It transformed mysticism into an activist historical force. The Lurianic kabbalist could not retreat into his own private world. He had to participate in a cosmic millennial drama in which his every action counted. The Lurianic kabbalah was the first Jewish theology which envisioned perfection in terms of a future state, not in terms of some forfeited ideal past, and as such it contributed to the idea of progress emerging in the West.¹³

During the past thirty years there has been an increasing willingness to recognize the important ways in which mystical and occult thinking contributed to the development of science and the emergence of toleration.¹⁴ However, the kabbalah, particularly the Lurianic kabbalah with its optimistic, vitalist philosophy of perfectionism and universal salvation has not yet been integrated into the new historiography, although it richly deserves to be. During the seventeenth century interest in the kabbalah was not restricted to the small circle of Christian kabbalists at the Sulzbach court. Van Helmont traveled extensively and wherever he went, the kabbalah went with him. One place he visited frequently was Hanover, where he spent long periods of time with Leibniz. As I have argued in my book *Leibniz and the kabbalah*, Leibniz was neither the fatuous fool Voltaire made him out to be in the character of Dr. Pangloss nor the supreme rationalist described by so many subsequent philosophers and historians of science.¹⁵ He was, in my opinion, a humanist in all senses of the word, who was committed to the improvement of the human condition on every level; and many of the ideas he brought to this life-long task came from the esoteric philosophy of the Lurianic kabbalah. Once this somewhat startling fact is recognized, key areas in Leibniz's philosophy, which have perplexed scholars, for example, his concept of monads, his theodicy, and his defense of free will, can be understood in entirely new ways.

What made me suspect that Leibniz's philosophy could not be what it is generally presented as being is that it would then have absolutely no relevance to his activities as a human being. If Leibniz actually believed, as Voltaire claimed, that this was the "best of all possible worlds," and if his concept of "pre-established harmony" inevitably led him to an inescapable form of determinism, as most modern commentators contend,¹⁶ how can we possibly explain his life-long and passionate commitment to ecumenism, education, and science? If, in Leibniz's philosophy, progress is out of the question because each and every created entity is preordained to follow a specific path, why was he so committed to doing all that was possible to improve the human condition, first, by working for religious unity and toleration and, second, by devising all kinds of socially useful inventions? His calculator is perhaps the best known of these. But in addition to that, Leibniz proposed plans for such things as a high-speed coach that would proceed along tracks on something like ball bearings, a scheme for draining water from the Hartz mines, an inland navigation system, the utilization of waste heat in furnaces, tax reform, a public health and fire service, steam-powered fountains, street lighting, a state bank, and isolation wards for plague victims.¹⁷ On a more mundane level, he drew up plans for a more efficient wheelbarrow, better cooking pots, and even shoes with springs to allow for "fast getaways."¹⁸ He did many of these things in the company of van Helmont. The friendship between these two men was very close, close enough for Leibniz to ghost van Helmont's last book.¹⁹ Ghost-writing a book for a self-proclaimed kabbalist is an extraordinary act for someone supposedly unaffected by kabbalistic theories.

It has been alleged that Leibniz derived the term "monad" from various philosophers, ranging from Giordano Bruno to Henry More. However, a strong case can be made for van Helmont as his most direct and important source. Van Helmont accepted the Lurianic idea that matter and spirit were simply opposite ends of a continuum, which consisted of an infinity of monads in various states of awareness. "Dull," "sluggish," or "sleepy" monads, to use van Helmont's adjectives, were clustered at the material end of the spectrum, while "active," and "awake" monads gravitated to the spiritual end.²⁰ This was the direction all monads eventually would take as a result of repeated reincarnations. As I have argued in my book, I believe that Leibniz adopted this scheme in his own work, expressing it, however,

in a more readily accessible philosophical vocabulary. Michael Gottlieb Hansch describes Leibniz musing on these matters while chatting over a cup of *caffè latte*. As he reports:

I remember that once, when Leibniz and I met in Leipzig and were drinking *caffè latte*, a beverage which he greatly savored, he said that in the cup from which he was drinking there might be, for all we know, monads that in future time would become human souls.²¹

I contend that by the end of his life Leibniz accepted the radical, kabbalistic idea of *tikkun* and consequently believed that every created thing would eventually reach a state of perfection as a result of repeated transformations.²²

Leibniz was not the only friend van Helmont introduced to the kabbalah. In 1670 he traveled to England and while there met the Cambridge Platonist Henry More, who implored van Helmont to visit his good friend Lady Anne Conway. From the age of eighteen Lady Conway suffered from increasingly severe and incapacitating headaches that had baffled such eminent physicians as William Harvey, Theodore Mayerne, and Thomas Willis.²³ More hoped that van Helmont's skill as an alchemist and physician who reputedly possessed miraculous medicines would prove equal to the task of curing her. He was to be disappointed. But although van Helmont could not help Lady Conway as a physician, he helped her as a kabbalist by enabling her to envision her own suffering as part of the divine redemptive process of *tikkun*. Van Helmont stayed with Lady Conway to the end of her life nine years later. During this period they collaborated on several kabbalistic works. Lady Conway also wrote a small treatise on her own, *The Principles of the Most Ancient and Modern Philosophy*, in which she employed kabbalistic theories to refute the theories of Hobbes, Descartes, and Spinoza. This was posthumously published by van Helmont.²⁴ It is arguably the most interesting work published by a woman in the seventeenth century, and all the more interesting because Leibniz thought highly of it.²⁵

Van Helmont's association with Lady Conway is not only memorable for their mutual interest in the kabbalah but also for the profound effect their kabbalistic philosophy had on contemporary Quakers. The Quakers were ardent proselytizers, but when they made their first missionary visit to Lady Conway in 1675, they found more than they bargained for in van Helmont, who was as eager as they were to proselytize. A sect of so-called

"Helmontian" Quakers arose from this encounter. These Quakers found in the kabbalah – and particularly in the Lurianic idea of reincarnation – a solution to the problem posed by the fact that Christianity had developed in a specific time and place. For how could such a religion promise love and mercy if the vast majority of human beings were bound to be eternally damned because they lived either before Jesus was born or in parts of the world that had never heard of him? The Lurianic doctrine of *tikkun* and *gilgul* solved this problem by offering a theodicy in which there was no place for the concept of an eternal hell since God provided each individual with the opportunity to be reincarnated until they achieved salvation. This solution was not, however, to the liking of the Quakers as a whole. George Fox, the founder of the Quakers, was particularly critical. After Lady Conway's death he called for a meeting to investigate van Helmont's ideas. They were eventually rejected, and van Helmont left the Society, although he spoke with admiration of the Quakers to his dying day.²⁶ But this was not the end of the story; the next step leads to van Helmont's association with John Locke.

Van Helmont figures prominently in Locke's correspondence, but as in the case of van Helmont's association with Leibniz, this has been entirely overlooked. For what could John Locke, the defender of reason and most famous exponent of British empiricism, possibly have to say to an alchemist, kabbalist, and Quaker? The answer is, a lot. The two were mutual friends of the merchant, Quaker, and eventual free thinker Benjamin Furly (1636-1714). Both stayed with Furly in Rotterdam for extended periods, and both were members of the "Lantern," a group of free-spirited individuals founded by Furly, who saw themselves as beacons of light in an all-too-intolerant world.²⁷ From Locke's correspondence with Furly it is clear that they both read van Helmont's books, commented on them, and even helped to get them published. Locke's library contained van Helmont's *Paradoxal Discourses* (1685); *Observationes circa hominem ejusq morbos* (1692); *The Divine Being and its Attributes* (1693); *Quaedam praemeditatae et consideratae Cogitationes super ... Genesis* (1697); *Seder Olam* (1693); *A Cabbalistic Dialogue* (1682); the *Adumbratio Kabbalae Christianae* (1684); and *Two Hundred Queries ... concerning the doctrine of the Revolution of Humane Souls* (1684). Locke owned two works elaborating on this last treatise as well: *A Letter to a Gentleman touching the treatise entitled Two Hundred Queries ...* (1690) and *The harmlesse Opin-*

ion of the Revolution of Humane Soules (London, 1694). Locke also possessed J. B. van Helmont's *Ortus Medicinae* and two books by von Rosenroth, his *Explication of the Visions of the Book of Revelation*, which Knorr had written under the pseudonym Peganus and which the secretary of the Royal Society, Henry Oldenburg, had translated into English in 1670, and *A Dissertation concerning the pre-existence of Souls* (1684).²⁸

It is perhaps even more surprising to find excerpts from the *Kabbala denudata* among Locke's manuscripts. These include portions of a preparatory letter written by Knorr about the utility of the Zohar for Christians²⁹ and five pages of notes written in a miniscule hand on the *Adumbratio Kabbalae Christianae*, the last treatise in the *Kabbala denudata*, which was also printed in a separate edition. Locke is clearly critical of the kabbalah. He titles his notes, "Dubia circa philosophiam Orientalem," and brings up a point he makes so forcefully throughout his *Essay Concerning Human Understanding* about the danger of using "words without a clear and distinct notion."³⁰ But while he had his doubts about the solutions offered by the *Kabbala denudata*, he was clearly interested in the very same questions broached in that work: what is the nature of God, the messiah, spirits, and matter; why was the world created, and why did souls fall; do souls preexist and are they restored to their original purity? However critical Locke was of the *Kabbala denudata*, he thought highly enough of it to have the publisher Nicolas Wetstein send a copy to Nicolas Toinard and to procure the second volume for himself.³¹

In addition to these excerpts from the *Kabbala denudata*, Locke's papers include a discussion of Hebrew chronology taken from van Helmont's *Seder Olam* (1694). Like the majority of his contemporaries, including Sir Isaac Newton, Locke was convinced that the millennium was at hand and was consequently intrigued by the various calculations used to determine its advent. According to the scheme Locke transcribed from the *Seder Olam*, the fullness of the Gentiles would occur in 1702, the conversion of the Jews in 1732, and the millennium, which would follow Christ's second coming, would begin in 1777.³² A further note appears among Locke's manuscripts on the resurrection. It is headed "F.M.V.H." and contains a passage advocating van Helmont's belief that hell is not eternal but "only for ye good of ye creature, it cannot remain forever in torment but shall suffer greater & longer proportionable to his sins & shall come out as soon as it has pd [paid] the utmost farthing."³³ Locke was well aware of van Helmont's conviction that

pain and suffering were "medicinal," an idea that Lady Conway emphasizes in her own treatise, which van Helmont had published in Latin (1690) and English (1692) during the years of his friendship with Locke. It is hard to imagine that van Helmont would not have spoken to Locke about Lady Conway (as he did to Leibniz). If he did, it would help to explain why a manuscript copy of a poem "on the Love of Pain" dedicated to Lady Conway and written by Adam Boreel, who was a member of the Lantern, appears among Locke's papers.³⁴

In addition to the excerpts and notes described above, there is a short critique by Knorr von Rosenroth of the abridged version of Locke's *Essay Concerning Human Understanding* published in French in 1688. This was one of the earliest critiques of Locke's *Essay*. Knorr wrote it Latin and entitled "Observations on the treatise of Mr. J. Locke on the Understanding: after the doctrine of the Hebrews and the ancient philosophers."³⁵ All the accumulated evidence so far described suggests that Locke was interested enough in van Helmont's kabbalistic theories to consider them carefully.

Van Helmont's medical and scientific theories also interested Locke. Locke was himself a member of the Royal Society, and he had studied medicine with no less a physician than Thomas Sydenham. In the journals Locke kept while in Holland, he included van Helmont's recipes for making boot polish, preparing a primitive blackboard from kid's skin, and preserving beer.³⁶ Like most natural philosophers of the period, Locke and van Helmont were interested in practical inventions, which explains the presence among Locke's papers of a drawing dated 1688 illustrating a device made by van Helmont for polishing stones.³⁷

In his journals Locke also recorded van Helmont's cures for gangrene, plague, and scabies and his observations on the way crystals and pebbles "grow and nourish."³⁸ As we have seen, van Helmont believed everything in the world was alive. He was a vitalist and consequently rejected the mechanical philosophy. Although Locke is often thought of as subscribing to the mechanical philosophy, he was acutely aware of the difficulty, if not impossibility, of providing mechanical explanations for natural phenomena. In his *Essay Concerning Human Understanding* he discusses the major problems facing mechanists: 1) how can one explain in mechanical terms the forces or properties that keep atoms or corpuscles together and allow them to develop into large-scale organisms? 2) how are secondary qualities re-

lated to primary qualities? 3) and even more problematic was the question of how one could explain the interaction between the mind and body in mechanical terms.³⁹ Margaret Wilson has argued that Locke's professed pessimism about the possibility of attaining genuine scientific knowledge undermined his adherence to mechanism. She believes that Locke came to the conclusion that it was impossible to explain all secondary qualities as consequences of primary ones, and consequently that some properties must have been added by God.⁴⁰ The fact that Locke bothered to copy down van Helmont's observations may indicate that in the face of these obstacles to a comprehensive mechanical philosophy he was willing to consider the kind of vitalistic explanations offered by van Helmont.

On a trip to England in 1693-4, Van Helmont visited Locke at Oates, the home of Lady Masham and her husband, Sir Francis, where Locke lived for the last years of his life. The fact that van Helmont apparently remained at Oates for five months, from October to February,⁴¹ suggests a degree of friendship that would appear inexplicable if one accepts conventional categorizations in the history of science and philosophy. Even more improbable is the visit made to Oates during this period by William Clarke, one of the "Helmontian" Quakers. While at Oates, Clarke showed Locke, van Helmont, and the Mashams a small tract he had written in defense of van Helmont's kabbalistic theory of reincarnation. The following year Clarke's tract was attacked by one "J. H." in a book entitled *An Answer to some Queries propos'd by W. C., or, A Refutation of Helmont's Pernicious Error (that every Man is often born, and hath Twelve Ages or Tryals allow'd him in the world by GOD) warmly Contended for in, and about Lambourn in Wiltshire*. At the time I completed my doctorate on van Helmont in 1972, I was unable to find a copy of William Clarke's original pamphlet or even identify him with certainty. It was not until 1979 when the fifth volume of Edmund de Beer's edition of *The correspondence of John Locke* was published that both the author and his text, which I had presumed lost, came to light. In a letter to Locke dated 1 August 1694 William Clarke describes the attack on his book. But what is more surprising still is that he asks if Locke would be willing to write a rebuttal, with the expectation that he might be. As Clarke says, "I Am in some hops you may make some remarkes your selfe on this booke tho you put not your nam to the publick. ..." ⁴² Clarke even included a draft of his pamphlet on the grounds that J. H. had significantly misrepresented what

he had said. This letter, with its request for Locke's intervention in a debate over the kabbalah, appears so extraordinary in the light of modern appraisals of John Locke that I quote it in full in the appendix. (The reader is forewarned that Clarke's spelling is highly idiosyncratic.)

How can one explain this friendship between men usually seen as belonging on opposite ends of the philosophical and scientific spectrum? The answer must be that the clear-cut divisions made by nineteenth- and twentieth-century historians between rationalists and empiricists, occultists and scientists, vitalists and mechanists are misleading; our categories simply were not theirs.⁴³ Locke and van Helmont were friends because of their mutual interest in alchemy and natural philosophy, their sincere interest in religion, and their heartfelt desire to promote tolerance and ecumenism. Locke was not a purely secular philosopher; his interest in epistemology was a result of his deep religious concerns and wish to establish a firm basis for Christianity.⁴⁴

The same reasons for the friendship between van Helmont and Locke apply, as we have seen, to van Helmont's friendship with Leibniz. The year after van Helmont visited Locke in 1693, he was at Hanover visiting Leibniz. With the exception of Nicholas Jolley, most scholars have emphasized the lack of communication between Leibniz and Locke. Even Jolley thinks the only possible go-between was Leibniz's Scottish correspondent Thomas Burnett.⁴⁵ There is evidence, however, of another and to my mind more important link, and that, of course, is van Helmont. Van Helmont brought the abridged French version of Locke's *Essay Concerning Human Understanding* to the attention of Knorr von Rosenroth, who sent Locke a critique of it in 1688, as we have seen.⁴⁶ It is hard to believe that van Helmont would not have played the role of intermediary between Leibniz and Locke, and there is indeed evidence to prove that he did so. Leibniz's first criticisms of Locke's *Essay* were written during the period he was in closest contact with van Helmont, which began in 1694, a year after van Helmont's stay with Locke. It is surely interesting that for all their philosophical differences, Leibniz and Locke shared certain unorthodox religious views that were similar in many regards to those advocated by van Helmont. All three men rejected the doctrine of original sin, predestination, and the eternity of hell.⁴⁷ But even more significantly, they rejected Christ's essential role in salvation. Such ideas were highly unorthodox in terms of Christianity, though obviously not in terms

of the kabbalah. Orthodox Christians routinely dubbed any diminution in Christ's role as "Jewish," which helps to explain why van Helmont was imprisoned by the Roman Inquisition for two years on the charge of "Judaizing."⁴⁸ The stigma of being a "judaizer" was also attached to Locke, for he was accused of being, and probably was, a Socinian or Arian.⁴⁹ The Arian Jesus is far more like the kabbalah's *Adam kadmon* than the Christian Christ. He is the first among creatures and the mediator between God and man, but not in any way equal or consubstantial with the Father. The Christian Hebraist Constantine L'Empereur contemptuously referred to this Socinian view of Christ as a "Jewish" error. As he wrote, "Many people, even some who profess Christianity, do not shrink from frank approval of the Jewish error. They completely reject Christ's expiation for our sins."⁵⁰

Another Arian influenced by van Helmont, albeit in a different way from Leibniz and Locke, was no less a figure than Isaac Newton. It has been suggested that Newton's conceptions of time and space were indebted to the kabbalah, and one scholar, Serge Hutin, has gone as far as to describe Newton as a "Christian kabbalist."⁵¹ But as Matt Goldish has amply illustrated, Newton's palpable hostility to the kabbalah undermines such suppositions.⁵² This does not mean that Newton was uninfluenced by the kabbalah. In fact, I would argue that it was his reading of the *Kabbala denudata*, which had been presented to him by van Helmont, that provided him with ammunition in his battle against Leibniz.⁵³ The Leibniz-Clarke debate, in which Newton's hand is evident, cannot be fully understood without appreciating that Newton's hostility to Gnosticism lies at its heart. While Newton rejected all varieties of gnostic thought, he was especially antagonized by the Jewish kabbalah. He considered the kabbalah a major source of the gnostic ideology that had, in his view, distorted early Christianity by introducing abuse metaphysical theories and the pantheistic notion of emanation. Newton knew something that most scholars have been unaware of or have strenuously denied to this day, namely that Leibniz was a gnostic and a kabbalist. Other people apparently knew this as well. In an anonymous review of Leibniz's system of pre-established harmony published in the *Histoire Critique de la République des Lettres*, the author comes right out and says that although he finds Leibniz's philosophy unintelligible, there is nothing novel about it; it comes straight out of the *Kabbala denudata*!⁵⁴

I hope this brief review shows how important it is to integrate the study

of the kabbalah into the broader history of Europe. The kabbalah offered something of a permeable barrier between Christians and Jews, allowing the circulation of ideas. Both Christianity and the kabbalah were profoundly influenced by the same neoplatonic doctrines.⁵⁵ Christians were therefore not wrong to discover Christian (or neoplatonized Christian) concepts in the kabbalah, for Jewish kabbalists lived for the most part among Christians and absorbed Christian ideas.⁵⁶ But the ideas absorbed were attenuated, shorn of dogmatic subtleties, and mixed with Jewish concepts. When Christians rediscovered these ideas, they were therefore very different from their original form. As I suggested earlier, although van Helmont's and von Rosenroth's intention to convert the Jews provided the impetus for the publication of the *Kabbala denudata*, a careful reading of the texts included in the work together with van Helmont and von Rosenroth's commentaries reveals that the Christianity proffered to the potential convert is decidedly unorthodox. This is especially clear in regard to the central Christian doctrine of Jesus as the messiah. Van Helmont's identification of Jesus with *Adam kadmon* leads to a radical reinterpretation and rejection of basic Christian concepts. For example, in the Lurianic kabbalah *Adam kadmon* is identified as the primordial man, the first being emanated from the Godhead, who contains the souls of all subsequent men. Thus, one could argue that if all souls were originally contained in *Adam kadmon*, or Christ, then Christ was essentially in all souls, a shocking notion when taken literally because it suggested that each individual had the power to save himself by his own efforts and that, indeed, human beings were potentially, if not actually, divine. This concept of Christ obviated any need for his sacrifice and death in anything but a metaphorical or allegorical sense and suggested instead that man controlled his own destiny as well as that of the universe. It is perhaps paradoxical that for all the abstruseness of their kabbalistic thought, or perhaps because of it, men like van Helmont (and, I would argue, Leibniz and perhaps Locke as well) ended up with a far more tolerant and ecumenical outlook than many other Christians who have been singled out for their enlightened religious views. By accepting the Lurianic doctrine of *tikkun*, which undermined the doctrine of an eternal hell, van Helmont undercut the need for any institutionalized system of belief. Anyone could and would be saved, whatever his faith.⁵⁷ As I argue in *Leibniz and the kabbalah*, I believe this is the position Leibniz came to as a result of his immersion in the kabbalah. Thus the

kabbalistic studies of ecumenically-minded Christians like Francis Mercury van Helmont contributed to the development of the optimistic, non-dogmatic philosophy characteristic of the Enlightenment.

When I first described van Helmont's kabbalistic theories in a lecture at the Warburg Institute many years ago, I was asked if he were insane. To the twentieth-century questioner he may well appear to have been, but for those of us who have spent a lifetime reading about the bitter and bloody religious battles of the early modern period (or even those in our own day), van Helmont's philosophy comes as a breath of fresh air. Van Helmont had no mental "index"; he read, explored, and investigated everything to the best of his ability. The world was a marvel to him and the individuals he met along the way were his equals and brothers. As he wandered the continent in the simple garments woven by his own hands, advising German princes on how to help the destitute in their war-torn lands and encouraging everyone he met to practice charity and brotherly love, it is easy to forget that he was inspired by kabbalistic visions. But it is precisely the power and application of these visions that make the kabbalah a force to be reckoned with in the development of modern thought.

APPENDIX

William Clarke to John Locke, 1 August 1694 (*The correspondence of John Locke*, ed. E. S. de Beer, 8 vols. (Oxford, 1976-89), 5: 1765, 97-102)

Worthy sir

I have made bould to Trespas on your patience to read this letter, and a scandolus book printed in answer to my 8 queres as I had at Sir Francis's when last with the Baron of Helmont, and I have sent you a True copy of the Queres That so you may see what answer is given and what is left out in the 1th quere, And how they have abused me and the Baron, but my thoughts are They have done that which will prove of good service, peopl are in great Expectations of the reply, which I hop a friend of mine will do who can do it better than I, (I have sent one of the protended Answers to holland to go to the Baron, I have directed to a friend of myne in Amsterdam that I use to writ to, I have for the present sent out sevrall papers in print-hand to keepe up the life that is stiring in many tell [til] some or other shall do something Effetialy, here followeth a Copy of it: There will be shortly printed a Reply to a Scandolus Book falsy Titled An Answer to 8 Queres of William Clarkes (Printed at Oxford) wherein their grosse pervertions, lyes, and slanders will be made apeare, with an Illustration of the doctring of the Revolution of Human Souls: Sir I hop you will not take it amiss the Charge from Harlow will be something, pray pardon my bouldness, I tock care to have the Coachman payd to the Crown in harlow, my kinde love and respects to your self and to Sir Francis and his good Lady and to the young Lady:⁵⁸ my thoughts are this book might not be unwelcom to any of you, which you will see how poore the university is in true knowidge. Sir I left them without Excuse before they had printed, when I understood they would print, I sent a letter to let them know what bookes were in print that they might read them, that so they might not Expose themselves in print, or be Exposed by some other, these are the bookes I gave them an account of, 200 Queries, the prexistance of Souls, a letter to a gentlman, Seder Olam, the Ulger Philosephy refuted as the Paradoxe, etc.⁵⁹ Sir I Am in some hops you to

the publick, Sir I should be glad to have 2 or 3 lines from you whether you have received it for my satisfaction, but if you would give me 3 or 4 lines you may direct it thus. Leave this at William whits in Newbery groser for William Clarke, and a few of your thoughts on this booke, and I should be glad if you Come into our Countrey to see you, tho I Cannot give such a parson entertainment,

So I Rest Your Affctionated friend, Pray forgett not to give my service: to Sir Fr: and the good ladys and I hartily thainck them for their love and Kindness to me

William Clarke

AGUST THE FIRST

Lamborn woodlands in berks sheir within 10 mile of Newbery

I do heare they at the university have sent 200 of those bookes to London

[The enclosure]

Some queries proposed, by an Inquiring man after truth (that if hapily may finde it)

1 query [Clarke cites in the margin to this query: "mat 7:2, luek 6:37, Rom 2.1, luek 6:4"] how shall we understand that place of Scriptur which saith the same measure you met, the same measure shall be meted or measured to you againe, whether it may not be thus understood, that a Rich man in this worlds goods, and is not kind to the poore, and his hart is set in his Riches, whether the meaning of those words of Christ may not Import thus much, that this rich man, must be Born into this world and become poore, and miserable, and know want, and hunger, as he made or Indavered to make the poore to know, and may be born a foole into the bargain, having now the use of sence and reason and have abused it,

2 query how shall we understand that saing of John rev: 13, v. 10 he that killeth with the sword, shall be killed with the sword, he that leadeth into Captivety, shall go into Captivety, what otherwise can be understood by this, but that if thos men should dye on their beds, must not they be born againe into this world to have the same measure meted to them which they have measured to others, elce how can the Justis of god be vindicated, seeing it is said god is Just and all his ways are equal.

3 query And doth not the Justis of god the good husbandman, appere by still new grafting, and Transplanting; so that at last, they may bring forth good frut, elce to what purpos doth a gardiner grafft, and Transplant, lop, and inoculat, if it were not for to have good frut, and how much more shall the great gardinar do that planted the world.

4 query how shall we understand the apostle paul to the Romans Ch: 9. v 27 where he saith tho the Children of Israll were as the sand of the sea yet but a remnant was to be saved at that tim, do he therfore Exclud them in all futer times, shurly no, read rom. 11. v. 25. 26 where mention is made that when the fullness of the gentils are come in all Israll shall be saved, see how the apostle Calls it A mistery, now it playnly appereth that the fullness of the gentils is not yet com in, And what is become of the 10 Tribs that have been in Captivety for it may be for above 2000 years, are not thos born of gentils, and must it not be according to the apostles words fulfilled, when the fullness of the gentils are come in all Israll shall be saved, being born of gentils.

5th query what may be the meaning of thos words of Christ in mat: the 23. v 35 that upon you may com all the Rightou [sic] blood shed upon the Earth, from the blood of Righouts able unto the Bood of Zacharias son of barachias, whom ye slew between the tempel and the alter, do'it not playnly appeare that they were the very men that did kill Zacarias, etc, Elce what Justis were there in god, to punish them for that which their fathers had acted forty generations or nere 4000 years before, seeing god no where promised to visit the sines of the fathers beyond the 3d and 4th generation under the law

6 query what may be the meaning of the prophet Eze: Ch. 16: v: 55 when thy sister sodom and her daughter shall return to theier formar Estat and Simaria and her daughters shall return to theier formar Estat, then thou and thy daughters shall return To your former Estat, (that is Jerusalem and her daughters) seeing it playnly appears that they were dead and gon, how is this posable to com to pass, To return to theier format [sic] Estat without being born a new into this world. —

query 7 what is the meaning of thos words of moyses in the 90 psl. thou turns man to distruction, and saith return ye Cheldren of men, were it not the same men that was turned to distruction, that was to return againe, that so they being new graffited might bring forth better frut, and doth not Soloman say in Ecl: Ch. 1. v. 4 as it is in the Original, generation goeth and generation Cometh, not one generation goeth and another cometh, (one and another is added by the translators)

Tsnug MLugL JRAHW AB RWDW ILWH RWD

8 qu What may be the meaning of thos words of peter 1: Cha: 3. v 18. 19. 20 for Christ also hath once suffred for sins the Just for the unjust that he might bring us to god, being put to death in the flesh, but quickned by the spirit, by which also he went and preached to the spirits in prison, the greek words) to the same Spirits) which were somtimes disobediant, when once the loung suffring of god waited in the days of noah, while the arke was a preparing, wherein few, that is Eight souls were saved by water, Was it not the same souls that were living in the bodys of flesh againe at the tim of Christ and his apostls on Earth, that so they might have his death and resarection preached to them, elce what Benifitt could thes men have had of the dath of Christ, had they not lived and had the grace and favor of ouer Lord Jesus Christ Tendred to them — as it is written he tasted Death for Every man: now if any man would put pen to paper To denigh the return of souls, I would put my hand to paper to prove, that man, or those men denigh there is any god, but what they have made and Conceived, writn by a seeking man after truth, But if any should Answer and say, it is not worth Answring, and yet say — it is damnable doctring, as I heard one say within 3 days past, Now I would aske a question, whether it be not a duty incumbant on the Teachers, to refut this doctring if they are able (that men might not be drawn into such damnable erros, as som of them Call it) but seeing this doctring hath beene printed in divers Lainguaes, and in divers Cuntery, and no man as we can here of hath hetherto Writen against it, therfore I thinck it altogether Iposable, Except that they can prove that man as to his body doth not proceed from his parents, which is altogeather Imposable for them to do

William Clarke

DECEMBER THE 16 1693

Written in hast (any one that will undertake to Answer thes questions) and send it to me, it shall be kindly recived, for truth needs no great Amplification, (any one that doth recive this) I mean a teacher of any of the divers Congregations) and if he cannot Answer it, I would desier it might be returned to me againe, or Elce an answer to it, which shall be kindly and lovingly recived by me

William Clarke (vale)

Postscript

Thes queris I have shewed and proffred them to som of the Clargy of the Curch of England and I could not finde them willing to meddl with it, (As to Answer it in the Negitive,) and I sent it to the Learned of the prisbiteriens for them to answer it, I having heard of ther Exclaiming much against it, and if I recive no answer to it from any of the divers Congregations as it is preposed to them, I shall conclud it is becaus they are not able to do it

Vale

W: C

FEBRUARY THE 11TH 1694/3

NOTES

1. J. B. van Helmont, *Oriatirke, or Physicke Refined...*, tr. J. Chandler (London, 1662), 807.
2. Sarah Hutton, ed., *The Conway letters*. Edited by Marjorie Hope Nicolson. Revised edition with an introduction and new material (Oxford, 1992), 329.
3. Hanover, Niedersächsische Landesbibliothek, L.Br. 389, fol. 125: "Nil patre inferior jacet hic Helmontius alter / Qui junxit varias mentis et artis opes; / Per quem Pythagoras et Cabbala sacra revixit, / Elausque potest qui dare cuncta sibi. / Quod si Graja virum tellus, et prisca tulissent / Secula, nunc inter lumina prima foret." In a note Leibniz explains the reference to Elaus: "Hippias patria Elaus, professione philosophus, qui omnia quibus opus, manu sua elaborare poterat." Leibniz's statement that van Helmont would have been deified in earlier centuries implied that throughout his life he had lived up to the prevailing ideal of a perfect gentleman, who worked for the public rather than his own private good. John Locke described this ideal as follows: "By virtuous actions of this kind heroic men in former times were raised to the sky and placed among the number of gods, purchasing heaven not with a mass of riches brought together from all sides, but with toil, hazards, and liberality" (quoted in John Marshall, *John Locke: Resistance, religion and responsibility* (Cambridge, 1994), 166). For a discussion of the ideal gentleman in early-modern thought see Marshall, chap. 5
4. In a recent article Joseph Dan argues against the use of the terms "Gnosticism" and "gnostic" on the grounds that they are too imprecisely used to be meaningful ("Jewish Gnosticism?" *Jewish Studies Quarterly* 2 (1995): 309-28). It is therefore with some trepidation that I use the term in this article. I do so simply because I can think of no better term to describe the radical (and from an orthodox Christian perspective, heretical) idea that individuals can gain the necessary knowledge for salvation through their own efforts, without the intervention of the Church or Jesus. I agree with Elaine Pagels that this idea, characteristic of gnostic Christians, survived as a suppressed current, reemerging periodically, especially among radical sectarians in the seventeenth century.

See Elaine Pagels, *The Gnostic Gospels* (New York, 1979), 150. To further complicate matters, the kind of Gnosticism I describe as characteristic of van Helmont's understanding of the Lurianic kabbalah is monistic and not dualistic. Although most descriptions of Gnosticism insist on its dualistic nature, there was a variety of "monadic gnosis" described by Clement of Alexandria and characteristic of the Valentinian texts discovered at Nag Hammadi as well as portions of the *Hermetica*, which exerted a profound influence on van Helmont. While Dan argues that the Lurianic kabbalah is "the most profound expression in Judaism of an extreme dualistic world-view" (p. 326), this is not the way that van Helmont interpreted it, as I hope to show.

5. *Der Italienish Lycurus oder Gesetze und Ordnungen durch und nach welcher die Rechte und Schluenige Gerechtigkeit verfügt wird ...*, durch Octavium Pisani (Sulzbach, 1666). A Latin edition also appeared in the same year. Cesare Bonesana, Marchese de Beccaria (1738-94) published *Dei delitti e delle pene* (*On crimes and punishment*) in 1764. The small volume went through six editions in eighteen months and was translated into twenty-two languages. Voltaire wrote a preface for the French edition. Beccaria was more concerned with preventing than punishing crime. He condemned capital punishment, torture, and the confiscation of property.
6. As a number of scholars have pointed out, the vast majority of Christians who have been described as philosemites did not like Jews as Jews but only as potential converts to Christianity or as ideal Mosaic types long dead. See David S. Katz, "The Abendana brothers and the Christian Hebraists of seventeenth-century England," *Journal of Ecclesiastical History* 40 (1989): 32: "As was almost always the case when Christians took an interest in the spiritual welfare of Jews, the ultimate aim was their conversion." Ernestine van der Wall, "The Amsterdam millenarian Petrus Serrarius (1600-69) and the Anglo-Dutch circle of philo-Judaists," *Jewish-Christian relations in the seventeenth century. Studies and documents*, ed. J. van den Berg and E. van der Wall (Dordrecht, 1988), 73: "... philo-Judaism has to be seen in a conversionist light, which at once indicates the limits of their pro-Jewishness: their philo-Judaism was a conditional sympathy." Jacob Katz refers to "these so-called philo-Semites" and says they "retained the Christian vision of the absorption of the Jews after their conversion" ("Reflecting on German-Jewish history," *In and out of the ghetto: Jewish-Gentile relations in late medieval and early modern Germany*, ed. R. Po-chia Hsia and Hartmut Lehmann (New York, 1995, 3). In his article, "The idea of the restoration of the Jews in English Protestant thought: 1660-1701" (*Harvard Theological Review* 78 (1985): 115-48), Nabil I. Matar thinks it is "doubtful whether the term philo-semitism can be correctly applied to the period under consideration"

- (p. 117). He makes much the same point in "John Locke and the Jews," *Journal of Ecclesiastical History* 44 (1993): 45-79. As I have argued elsewhere, philosemitism was really only possible for two kinds of "Christians": heretics and converts to Judaism – in other words for non-Christians. See Allison P. Coudert, "Seventeenth-century Christian Hebraists: philosemites or antisemites?" *Biblical criticism and Latin Judaica in the seventeenth century*, ed. Richard H. Popkin, Sarah Hutton, and Allison P. Coudert (Dordrecht, forthcoming).
7. Gershom Scholem, "Christian Knorr von Rosenroth," in his *Kabbalah* (Jerusalem, 1974), 416-19.
 8. The Zohar ("[the book of] splendor") is the central work in the literature of the Jewish kabbalah. Written in Aramaic in the style of the Talmud, it was assumed to be the work of Rabbi Simeon ben Yohai, a renowned sage of the school of Rabbi Akiva, but Gershom Scholem conclusively proved that the work was written by Moses de Leon at the end of the thirteenth century (*Major trends in Jewish mysticism*. New York, 1954). More of a library than a book, the Zohar consists of some twenty independent works. Generations of Jewish mystics have been captivated by the complex and daring symbolism of the Zohar and by the richness and breadth of its treatment of all aspects of human life from the most sublime level of spirituality to the trivia and confusion of ordinary living. See *The wisdom of the Zohar*. An anthology of texts arranged by Fischel Lachower and Isaiah Tishby with extensive introductions and explanations by Isaiah Tishby. Translated from the Hebrew by David Goldstein (The Littman Library of Jewish Civilization. 3 vols., Oxford, 1991).
 9. D. P. Walker, *The ancient theology: studies in Christian platonism from the fifteenth to the eighteenth centuries* (London, 1972).
 10. Scholem, *Major trends*; Moshe Idel, *Kabbalah: new perspectives* (New Haven, 1988).
 11. "If God be unchangeable, as certainly he is, can he absolutely hate any of his Creatures, which once he loved? and if when he most severely punishes his creatures, he loveth them, is not then his punishing them an Act of Love, and consequently medicinal, or in order to their recovery?" *Two Hundred Queries moderately propounded concerning the Doctrine of the Revolution of Humane Souls* (London, 1684), 115.
 12. D. P. Walker, *The decline of hell: seventeenth century discussions of eternal torment* (London, 1964).
 13. *Wisdom of the Zohar*, i: 232.

14. For a good overview of this issue (with appropriate bibliography) see G. MacDonald Ross, "Occultism and philosophy in the seventeenth century," in *Philosophy, its history and historiography*, ed. A. J. Holland (Dordrecht, 1985), 95-115; Simon Schaffer, "Occultism and reason," *Ibid.*, 117-43; and Ross' "Reply to Simon Schaffer," *Ibid.*, 147, in which he sums up his own paper in the following words: "I have made a number of claims [which] I would expect to raise a number of eyebrows in certain circles. I have interpreted Descartes' cogito as an example of relatively conventional occultist mysticism; I have interpreted Locke's way of ideas as a hang-over from belief in the effluence theory of perception, and the existence of magically knowable occult virtues; and I have related empiricism to the philosophy of the village wise-woman plucking her herbs in the light of the moon. I personally do not think this is any more radical than drawing attention to the alchemical activities of a Newton of a Leibniz, or to the religious and even prophetic dimension of seventeenth-century science. On the other hand, I do not believe that such issues have had a sufficient airing in philosophical circles, and it was my purpose in writing my paper to draw attention to a perspective which is still out of fashion in such circles." See also Walter Pagel, *Joan Baptista van Helmont: reformer of science and medicine* (Cambridge, 1982); *idem*, "Religious motives in the medical biology of the XVIIth century," *Bulletin of the History of Medicine* 3 (1935); *idem*, *Paracelsus: an introduction to philosophical medicine in the era of the Renaissance* (Basle and New York, 1958). As Pagel says of Paracelsus, "The proto-scientific as well as the non-scientific parts are products of the same mind and of the same cultural climate – the era of the Renaissance" ("Paracelsus and the neoplatonic and gnostic tradition," in *Religion and neoplatonism in Renaissance medicine*, ed. Marianne Winder (London, 1985), 125. See also Richard H. Popkin, "Newton's biblical theology and his theological physics," in *Newton's scientific and philosophical legacy*, ed. P. B. Scheurer and G. Debrock (Dordrecht, 1988), 81-97; *idem*, "The religious background of seventeenth-century philosophy," *Journal of the History of Philosophy* 25 (1987): 35-50; *idem*, "The third force in 17th-century philosophy: scepticism, science and biblical prophecy," *Nouvelles de la République des Lettres* 1 (1983): 35-63; *idem*, *The third force in seventeenth-century thought* (Leiden, 1992). Richard S. Westfall, *The construction of modern science: mechanism and mechanics* (Chicago, 1971); *idem*, "Newton and alchemy," *Occult and scientific mentalities in the Renaissance*, ed. Brian Vickers (Cambridge, 1984), 315-35; B. J. T. Dobbs, *The foundations of Newton's alchemy: or, "The Hunting of the green lyon"* (Cambridge, 1975); *idem*, *The Janus face of genius: the role of alchemy in Newton's thought* (Cambridge 1991); *idem*, "Newton's alchemy and his 'active principle' of gravitation," in *Newton's scientific and philosophical legacy*, ed. P. B. Scheurer and G. Debrock (Dordrecht, 1988), 55-80; *idem*, "The Signifi-
- cance of alchemy in the age of Newton," in *Science, pseudo-science and utopianism in early modern thought*, ed. Stephen A. McKnight (Columbia, Missouri, 1992), 55-87. Newton suspected that Boyle had been instrumental in procuring Parliament's repeal of the statute against alchemy because of his experiments on transmutation. See *The correspondence of Isaac Newton*, ed. H. W. Turnbull (Cambridge, 1941), iii: 217. G. MacDonald Ross, "Leibniz and Alchemy," *Magia naturalis und die Entstehung der modernen Naturwissenschaften*, *Studia Leibnitiana*, Sonderheft 7 (Wiesbaden, 1978), 166-77; K. Theodore Hoppen, "The nature of the early Royal Society," *British Journal of the History of Science* 9 (1976): 1-24; 243-73; Michael Hunter, "The social basis and changing fortunes of an early scientific institution: an analysis of the membership of the Royal Society, 1660-85," *Notes and Records of the Royal Society* 31 (1976): 9-114.
15. Allison P. Coudert, *Leibniz and the kabbalah* (Dordrecht, 1995).
16. The literature on this subject is enormous, as a look through *Studia Leibnitiana* and collections of essays on Leibniz readily reveals.
17. R. W. Meyer, *Leibniz and the seventeenth-century revolution*, trans. J. P. Stern (Chicago, 1952; first published in German in 1948), 118ff; G. MacDonald Ross, *Leibniz* (Oxford, 1984), 5ff.
18. *Tagebuch*, in *Leibniz, Geschichtliche Aufsätze und Gedichte*, ed. H. Pertz (Hannover, 1847; reprint Hildesheim, 1966): "7. August. Habe diesen Abend mit Herrn von Helmont viel geredet, wegen Erd ausbringen: ob Schiebekarrn guth. Durch motum hominis mit den Karrn viel tempus und vergebene Mähe. Praestat, hominem movere sine motu tanto sui. Von Gold schlagen. Von Braten und Kochen mit eisern Kasten. Zu redressiren, so krumb gewachsen, darinn er in Tractatu de Microcosmo et Macrocosmo, so teutsch nicht völlig sub tit. Paradoxa übersetzt. Von Drucken mit dem Fuss: mit beiden Händen spinnen. Hechel (p. 189)...
8. August ... Den Hern. Helmont meine Gedancken gesagt vom geschwinden fortkommen auff Schuhfedern. Von Voiture auf allezeit glatten Boden ..." (p. 190).
19. Anne Becco, "Aux sources de la monade: paléographie et lexicographie leibniziennes," *Études Philosophiques* 3 (1975): 279-94.; *idem*, "Leibniz et F. M. van Helmont: bagatelle pour des monades," *Magia naturalis*, *Studia Leibnitiana*, Sonderheft 7 (n. 14 above), 119-42.
20. F.M. van Helmont, *A Cabbalistical Dialogue in answer to the Opinion of a learend Doctor in Philosophy and Theology [Henry More], that the World was made of Noth-*

- ing ... (1682): "For these are our Positions, 1) That the Creator first brings into being a spiritual Nature. 2) And that either arbitrarily (when he please;) or continually, as he continually understands, generates, etc. 3) That some of these spirits, for some certain cause or reason, are slipt down from the state of knowing, of Penetration. 4) That these Monades or single Beings being now become spiritless or dull, did cling or come together after various manners. 5) That this coalition or clinging together, so long as it remains such, is called matter. 6) That out of this matter, all things material do consist, which yet shall in time return again to a more loosned and free state. No contradiction is involved in all these. Hence the Creator may also be said to be the efficient cause of all things materiaded or made material, although not immediately." For a fuller discussion of Leibniz's indebtedness to van Helmont for the concept of monad, see Coudert, *Leibniz and the kabbalah*, chap. 4.
21. Michael Gottlieb Hansch, *Godofredi Guilielmi Leibnitii Principia Philosophiae More Geometrico Demonstrata* (Frankfurt and Leipzig, 1728), 135. Voltaire, in his usual way, ups the ante and says that Leibniz claimed even a drop of urine of a bit of excrement contains an infinity of monads (*Éléments de la philosophie de Newton*, in *The Complete Works of Voltaire*, ed. Robert L. Walters and W. H. Barber (Oxford, 1992), xv, 242, 244).
 22. Coudert, *Leibniz and the kabbalah*, chap. 6.
 23. Gilbert Roy Owen, "The famous case of Lady Anne Conway," *Annals of Medical History*, new series 9 (1937): 567-71; Sarah Hutton, "Of physic and philosophy: Anne Conway, F. M. van Helmont and seventeenth-century medicine," in *Religio Medici*, ed. A. Cunningham and O. Erell (forthcoming).
 24. Allison P. Coudert, "A Cambridge Platonist's kabbalist nightmare," *Journal of the History of Ideas* 36 (1975): 633-52; Anne Conway, *The Principles of the Most Ancient and Modern Philosophy*. Edited and translated by Allison P. Coudert and Taylor Corse (Cambridge, 1996).
 25. "My philosophical views approach somewhat closely those of the late Countess Conway, and hold a middle position between Plato and Democritus, because I hold that all things take place mechanically as Democritus and Descartes contend against the view of Henry More and his followers, and hold too, nevertheless, that every thing takes place according to a living principle and according to final causes – all things are full of life and consciousness, contrary to the views of the atomists" (*Die philosophischen Schriften von G. W. Leibniz*, ed. C. I. Gerhardt, 7 vols. (Berlin, 1875-90; reprint Hildesheim, 1962), 3: 217). Leibniz's

- annotated copy of Lady Conway's treatise is in Hanover in the Niedersächsische Landesbibliothek.
26. Allison P. Coudert, "A Quaker-kabbalist controversy: George Fox's reaction to Francis Mercury van Helmont," *Journal of the Warburg and Courtauld Institutes* 39 (1976): 171-89.
 27. Marshall describes Furlly's house as being at the epicenter of the early Enlightenment (*John Locke*, 33r). William I. Hull, *Benjamin Furly and Quakerism in Rotterdam*, Swarthmore College Monographs on Quaker History, no. 5 (Swarthmore, Pa., 1941).
 28. *The Library of John Locke*, ed. John Harrison and Peter Laslett (Oxford, 1971): items 1413-1416a (p. 152) and items 2470-2473 (p. 220).
 29. Oxford, Bodleian Library, Lovelace Collection of the Papers of John Locke, MS Locke c. 17a, fols. 256-7. This comes from the *Kabbala denudata*, 1, pt. 2, A 2-3.
 30. MS. Locke c. 17, "Dubia circa Philosophiam Orientalem," fol. 75.
 31. *The correspondence of John Locke*, 3: 1060A, 478-9. On 20/30 June 1688, Hendrik Wetstein writes Locke, telling him that he will send the first volume of the *Kabbala denudata* along with Locke's *Abregé* to Nicolas Toinard in the coming week.
 32. Locke MS., c. 17, fols. 258-61.
 33. *Ibid.*, fol. 248.
 34. MS. Locke c. 32, fol. 47.
 35. "Observationes In Tractatum Dn. J. Locke de Intellectu: secundum doctrinam Hebraeorum et Philosophorum antiquorum." MS. Locke c. 13, fol. 14. This is printed with an English translation in *The correspondence of John Locke*, 3: 399-405.
 36. Kenneth Dewhurst, *John Locke (1632-1704), physician and philosopher: a medical biography with an edition of the medical notes in his Journals* (London: Wellcome Historical Medical Library, 1963), 276-7, 280-1.
 37. MS. Locke c. 30, fol. 98: "Machina ad poliendos lapides pretiosos, [Francis Mercury van] Helmont, [16]88." Among the "Curiosities" listed in the catalogue of Furlly's library were several made by Locke and van Helmont. Locke, for example, presented Furlly with a special bookcase he had designed with "Bookshelves for all sizes of books, invented by John Locke, Esq., being very convenient for transportation without removing the books from them" (*Bibliotheca Furliana*, Rotterdam, 1714, no. 59, p. 352).

38. Kenneth Dewhurst, *John Locke*, 276-7, 288, 280-1.
39. "Of the Extent of Humane Knowledge," *Essay*, Bk iv, chap. iii, 29, 559.
40. Margaret Wilson, "Superadded properties: the limits of mechanism in Locke," *American Philosophical Quarterly* 16 (1979): 143-50.
41. Van Helmont arrived at Oates on 7 October 1693 (*Correspondence of John Locke*, 3: 1662, 730). He was apparently still there when William Popple wrote to Locke on 3 February 1694 because at the end of his letter Popple presents his "humble service" to van Helmont (*Ibid.*, 5: 1704, 7).
42. See appendix for the full letter.
43. After I delivered a shortened version of this paper at the Houghton Library, a woman objected that I was blurring boundaries to the point that the history of philosophy was no longer intelligible. But I would argue that false categories make for false history. Rather than blurring boundaries, I hope I am making them more precise.
44. Marshall, *John Locke*, chap. 4.
45. Nicholas Jolley, *Leibniz and Locke* (Oxford, 1984), 36.
46. See n. 35.
47. For Locke, see Marshall, *John Locke*, chap. 4, esp. pp. 131ff. For Leibniz, see Coudert, *Leibniz and the kabbalah*, chap. 6.
48. Coudert, "Quaker-kabbalist controversy," 174-5.
49. Marshall, *John Locke*, 131ff.
50. Peter T. van Rooden, "Constantijn L'Empereur's contacts with the Amsterdam Jews and his confutation of Judaism," *Jewish-Christian relations in the seventeenth century. Studies and documents*, ed. J. van den Berg and E. van der Wall (Dordrecht, 1988), 62.
51. Brian Copenhaver, "Jewish theologies of space in the scientific revolution: Henry More, Joseph Raphson, Isaac Newton and their predecessors," *Annals of Science* 37 (1980): 515ff; Serge Hutin, "Note sur la création chez trois kabbalistes chrétiens anglais: Robert Fludd, Henry More et Isaac Newton," *Kabbalistes chrétiens, Cahiers de l'Hermetisme*, directeurs: Antoine Faivre and Frederick Tristan (Paris, 1979), 149-56.

52. Matt Goldish, "Newton on kabbalah," *The books of nature and scripture: recent essays on natural philosophy, theology, and biblical criticism in the Netherlands of Spinoza's time and the British Isles of Newton's time*, ed. Richard Popkin and James E. Force (Dordrecht, 1994), 89-103.
53. Newton appears to have perused the *Kabbala denudata* carefully. Harrison says some fifteen pages have been turned "down" or "up," and that there are "several other signs of dog-earing" (John Harrison, *The library of Isaac Newton* (Cambridge, 1978)).
54. *Histoire critique de la République des Lettres*, 1716, Article V, pp. 116-19.
55. *Neoplatonism and Christian thought*, ed. Dominic O'Meara (Albany, 1982); *Neoplatonism and Jewish thought* ed. Lenn E. Goodman (Albany, 1992). See especially in the latter volume Moshe Idel's article, "Jewish kabbalah and platonism in the Middle Ages and Renaissance," pp. 319-51.
56. Yehuda Liebes, "Christian influences on the Zohar," *Studies in the Zohar*, trans. Arnold Schwartz, Stephanie Nakache, Penina Peli (Albany, 1993).
57. This was one of the charges brought against van Helmont by the Inquisition. As the indictment reads: "... Helmont maintains without doubt that anyone in his own faith of whatever kind may be saved" (Archivo Segreto Vaticano, Archivo della Nunziatura de Colonia 81). The inquisition records relating to van Helmont's imprisonment have been printed as an appendix in Klaus Jaitner, "Der Pfalz-Sulzbacher Hof in der europäischen Ideengeschichte des 17. Jahrhunderts," in *Wolfenbüttler Beiträge*, ed. Paul Raabe (Wolfenbüttel, 1988), 273-404.
58. Probably Esther Masham.
59. *Two Hundred Queries moderately propounded concerning the doctrine of the Revolution of Humane Souls, and its Conformity with the Truth of the Christian Religion. . . To which is added, A dissertation concerning the Preexistence of Souls* (London, 1684); *A Letter to a Gentleman touching the Treatise, entitled, "200 Queries. . ."* (London, 1689); *Seder Olam, Or, The Order of Ages. . .* Translated out of Latin, by J. Clark, M. D. upon the Leave and Recommendation of F. M. Baron of Helmont (London, 1694). *The Vulgar Philosophy refuted* appears to be a translation of Jean Gironnet's *Philosophia Vulgaris Refutata* (Frankfurt, 1668). Nicolas Toinard describes his efforts to get this book for Locke (*Correspondence of John Locke*, 3: 1109, 560), but I have found no such translation. He was successful, for it appears as no. 1250a. See also *Paradoxical Discourses of M. van Helmont, Concerning the Macrocosm and Microcosm, of the Greater and Lesser World* (London, 1685).