“Hylomorphism” will be unfamiliar to the casual reader of the history of science and philosophy but among scholars working in these fields it is now the preferred term when referring to the Aristotelian doctrine of matter and form.\(^1\) It is important to acknowledge, however, that although a single term has achieved this preferred status, there is likely no pure or singular doctrine signified by “hylomorphism” itself. This will be apparent when we recall that Aristotle put matter and form to many uses.\(^2\) He differentiated the sublunary world from the celestial one by noting that celestial objects had forms, but no earthly matter.\(^3\) For living things he identified their form as their soul and their body as their matter.\(^4\) Among the faculties of the soul, he understood sensation to result when a form was received by the sense organs without any concomitant matter from the object being perceived.\(^5\) Pure thought too he characterized in terms of a form being available to the intellect without the need of a bodily organ, and so without matter.\(^6\) In his analysis of change he stipulated that if, contrary to Parmenides, the changing world we experience is more than a mere appearance, then matter and form must exist.\(^7\) This meant that matter and form were among the basic concepts needed to understand change, which Aristotle described as a transition in matter from a state of privation to the presence of a specific form, or *vice versa*. Difficult as it may be to imagine now, even change of place was conceived in this way: the “natural place” sought by a falling body was determined by its form.\(^8\)

In this paper, I do not wish to simply reject the use of “hylomorphism” because the term, as it is used in contemporary scholarship, purports to represent a single or unified view. Idealizations fill a necessary role in simplifying scholarship and my aim is not to persecute them
for doing so. Instead, I want to highlight and understand the particular risk attendant to the use of “hylomorphism” as a simplification not only of Aristotle, but the Peripatetics as well as those responding to them. The route I propose to take is a genetic one, for the history of “hylomorphism” is not at all obvious. Neither the word nor its cognates appear in early modern dictionaries such as Rodolphus Goclenius’ *Lexicon Philosophicum* (1613), Charles du Cange’s *Glossarium mediae et infimae latinitatis* (1678), Jean Nicot's *Thresor de la langue française* (1606), Jean-François Féraud's *Dictionnaire critique de la langue française* (1787-1788), Émile Littré's *Dictionnaire de la langue française* (1872-1877) or any edition of the *Dictionnaire de L'Académie française*. The term is not found in German dictionaries – such as the Grimms’ *Deutsche Wörterbuch* or pre-1883 editions of Friedrich Kluge’s *Etymologisches Wörterbuch der deutschen Sprache* – or Italian dictionaries, including Ottorino Pianigiani’s *Vocabolario etimologico della lingua italiana* (1907) and Manilo Cortelazzo and Paolo Zolli’s *Dizionario etimologico della lingua italiana* (1989). Ephraim Chambers’ *Cyclopaedia* (1728) lacks an entry, and the revised 1886 edition fails to remedy the omission. A search of Samuel Johnson’s *Dictionary of the English Language* (1755) is similarly unhelpful. Thus, in spite of its now being a staple of historical scholarship, used to distinguish Aristotle and his Peripatetic followers from competing traditions in Ancient, Medieval, Renaissance and even Early Modern science and philosophy, the origin of the term “hylomorphism” remains a mystery.

By unraveling the history of “hylomorphism,” I will explain how the term’s history has handicapped and misled early modernists in particular. I will specifically show that the term “hylomorphism” first appeared in English in 1860, though it was initially used to refer to materialism – the view that the natural world is co-extensive with the material world and material causes. Lacking any connection to Aristotle, the first appearance of “hylomorphism”
does not shed any light on the current use of the term. “Hylomorphism” began to be used with its current meaning between 1880 and 1897 in conjunction with the Catholic Church’s formal revival of Thomism as a singular alternative to developments in modern science. In what follows, I first detail the history of “hylomorphism” by locating the first appearance of “hylomorphism” and then identifying the moment when it began to refer, as it does today, to the Peripatetic doctrines of matter and form. After this I address the obstacles the term has created for scholars. I conclude with a suggestion for how best to use “hylomorphism” in the future.

As with many questions of language use, a good place to begin our search is with James A. H. Murray’s *A New English Dictionary on Historical Principles* (1901), which would later become the *Oxford English Dictionary* (*OED*). Although Murray’s dictionary lacks a specific entry for “hylomorphism”, it lists “hylomorphism” among the compounds made from “hylo-.” It also cites evidence that the word first appeared in the late nineteenth century. The current *OED* preserves the 1901 entry of “hylo-” and, like its progenitor, credits the British theologian James Martineau’s *A Study of Religion* (1888) with bringing “hylomorphism” into the English language. It also offers the following definition: “the doctrine that primordial matter is the First Cause of the universe.”

Though informative, there are two deficiencies in the *OED* account that ought to be corrected. First is the definition of “hylormorphism.” *A New English Dictionary* and the *OED* emphasize *hyle* but fail to account for *morphe*. Martineau’s *A Study of Religion* goes some way to explain this emphasis. Contrasting “Anthropomorphism, Biomorphism, and Hylomorphism,” Martineau attempted to “mark the differentia of… three theories” about the “universal cause of Nature.” He believed there “are but three forms under which it is possible to think of the ultimate or immanent principle of the Universe, -- Mind, Life, [and] Matter.” According to
Martineau’s view, then, “anthropomorphism” refers to any theory of the universe as coming from thought, while “biomorphism” refers to any theory that emphasizes animistic growth as a cause.” “Hylomorphism,” by contrast, appeals only to matter, which “mechanically shuffles into equilibrium.” Martineau’s use of “hylomorphism” clearly emphasizes hyle, and Murray and the OED simply follow his lead. But by sidelining morphe, their definition deprives hylomorphism of what is frequently thought to be its main advantage: that it is neither a species of Cartesian style substance dualism nor a straightforward materialism of the atomist variety. Regardless, the suggestion that matter alone is the first cause of the universe, without any role for form, will appear to the modern reader to be profoundly un-hylomorphic; so too will Martineau’s claim that hylomorphism involves a mechanical shuffling. We obviously must look more carefully for the moment at which “hylomorphism” came to refer to the Peripatetic’s commitment to matter and form.

The second deficiency in the accounts in A New English Dictionary and the OED is that Martineau is not the first to use “hylomorphism.” Rather, the term appears to have been coined in a translation of a curious letter written in 1818 by Friedrich Schleiermacher to Friedrich Jacobi, though an oversight in the 1858 and 1860 editions of Schleiermacher’s correspondence had the unfortunate consequence of leaving the precise meaning of the word underdetermined. The theological content of Schleiermacher’s letter need not concern us here, but the circumstances of its publication are worth describing in detail for the light they shed on the history of the first appearance of “hylomorphism” in both English and French.

Schleiermacher’s letter to Jacobi was first published in 1837, in the short-lived Der Kirchenfreund für das nördliche Deutschland.12 Precise numbers on the circulation of Der Kirchenfreund für das nördliche Deutschland have proven difficult to find. Worldwide, for any
year of its publication run, only seven universities currently own copies of the journal which
suggests the 1837 reprint of the letter was not widely read. The letter was, however, republished
in the 1858 edition of Schleiermacher’s correspondence, which made it available to a broader
readership. In 1858 the relevant passage reads as follows:

Der Anthropomorphismus, oder lassen Sie mich sagen, der Ideomorphismus, ist
aber unvermeidlich auf dem Gebiete der Dolmetschung des religiösen Gefühls;
ob der Hylomorphismus nicht eben so unentbehrlich ist auf der Seite der
Naturkunde, will ich nicht entscheiden, weil ich zu wenig davon verstehe.13

This passage is translated in the text below, but it is essential to see the German to understand the
history of “Hylomorphismus.” For, what is most remarkable about the passage is that the 1858
edition of Schleiermacher’s correspondence, as well as the 1860 reprint, omit a parenthetical
remark that Schleirmacher made to clarify the meaning of “Hylomorphismus.” This omission is
particularly glaring given that the 1837 version included this parenthetical explanation:

Der Anthropomorphismus, oder lassen Sie mich lieber sagen Ideomorphismus, ist
aber unvermeidlich auf dem Gebiete der Dolmetschung des religiösen Gefühls; ob
der Hylomorphismus (doch möchte ich das ja nicht atomistisch genommen haben,
sondern wie es die lebendigste Physik mit sich bringt) nicht eben so unentbehrlich
ist auf der Seite der Naturkunde, will ich nicht entscheiden, weil ich zu wenig
davon verstehe.14
Schleiermacher’s reference to the “most living physics” (lebendigste Physik) makes clear what he meant by “Hylomorphismus,” but such meaning would have been lost on readers of the 1858 and 1860 editions of his correspondence. As a result, the “lebendigste Physik” played no part in the reception of Schleiermacher’s “Hylomorphismus.” In addition, precisely what Schleiermacher means by the “most living physics” is not immediately obvious even in the fuller version of the letter. Still, what can be gleaned even from the 1858 passage is that “Hylomorphismus” is not a straightforward reference to the Peripatetic doctrines of matter and form; in fact, since the 1858 version of the letter contains nothing to support this conclusion, it would be impossible to interpret “Hylomorphismus” this way without going beyond that version.

This is noteworthy because the first appearance of “hylomorphism” is tied to Schleiermacher’s 1818 letter, albeit the 1858 version. Frederica Rowan’s 1860, *The Life of Schleiermacher*, refers to the former, but treats the 1858 text cited above as authoritative. In Rowan's translation of the German:

> Anthropromorphism, or let me rather say ideomorphism, is, however, unavoidable in regard to the interpretation of the religious feeling: whether hylomorphism is not equally indispensable in regard to natural science, I cannot undertake to determine, because I am not sufficiently acquainted with the subject.¹⁵

This passage from the 1818 letter was thought important enough by a reviewer for *The Westminster Review* that Rowan’s translation of the 1818 letter was reproduced almost in its entirety.¹⁶ Rowan’s translation predated Martineau’s work by nearly three decades but because Rowan relied on the 1858 version of Schleiermacher’s letter her translation suffers from the
same lack of specificity as her source. And although it is now clear that the OED mistakenly credited Martineau instead of Rowan with first using “hylomorphism”, the meaning of “hylomorphism” in 1860 nevertheless remains obscure. Consequently, we still do not know when “hylomorphism” came to refer to the Peripatetic’s account of matter and form.

The answer can be found two decades later as part of the Catholic Church’s conservative response to modernity in the late nineteenth century. Begun by Pope Pious IX with his Syllabus Errorum (1864), challenging the errors of the modern age continued with growing urgency as it became clear that the Pope and the Papal State were on the losing end of a battle with secular political powers, especially in Italy, and modern science. In 1880 the now completely unknown Tilmann Pesch published Institutiones Philosophiae Naturalis, a Latin defense of Thomas Aquinas. In part four of this work, Pesch expressed his misgivings about both empiricism – with its overreliance on the material world – and the claims of modern science, especially when at odds with Orthodox Church doctrine. Where the achievements of modern science are undeniable, however, Pesch proceeds by assimilating science into what he calls Thomas’ “systema hylomorphicum.” He summarizes his position with the following four claims: 1) the basic commitments of the systema hylomorphicum are “absolutely certain;” 2) its “immediate consequences” are equally certain; 3) it is the best hypothesis for explaining “chemical change;” and 4) we can and should substitute the “observations” of modern scientists for those “inexact conjectures” offered by medieval doctors.

Although Pesch did not actually use “hylomorphism” – he wrote in Latin and used the adjective “hylomorphic” – reviewers of his book made use of the term when discussing systema hylomorphicum. A particularly scathing rejoinder appeared in Mind, but more favorably inclined...
Catholic publications praised his *systema hylomorphicum*.\textsuperscript{20} *The Dublin Review*, which had been founded to promote Catholic doctrine in the nineteenth century, is a case in point:

> The space allowed to us renders it utterly impossible to point out the more positive theses of Father Pesch. But there is one point we wish to bring into due prominence — viz., his comments on the several systems for dealing with corporeal substances.... [where he] establishes the hylomorphical [sic] system held by St. Thomas.\textsuperscript{21}

Additional reviews of the *Institutiones Philosophiae Naturalis* appeared after a slightly modified second edition of the work was published in 1897. *The Month: A Catholic Magazine* summarized the work as follows: “It differs in no point of doctrine from the first edition.... [Volume one] contains theses dealing with the false systems of dynamists and others respecting the constitution of bodies and establishing the scholastic doctrine of hylomorphism.”\textsuperscript{22} Clearly, then, by 1897 “hylomorphism” was being used without qualification or explanation, referring simply to “the scholastic doctrine” of matter and form.

“Hylomorphism” gained acceptance in the years between the two editions of Pesch’s work. Orthodox Catholic doctrine in particular embraced “hylomorphism” between 1880 and 1897. Notable here is Thomas Quentin Fleming’s Thomist-inclined *Hylomorphism of Thought-Being* from 1888. This was the first book to use “hylomorphism” or any of its cognates in a title, something that did not go unnoticed. The reviewer for *The Dublin Review* noted, “Many, no doubt, on hearing the title of this book will wonder what ‘hylomorphism’ means but those who have studied Scholastic theory of ‘matter and form’ will understand that ‘hylomorphism’ denotes
the formation of a compound from two principles, one active, the other passive.”\(^{23}\) Judging from this review the “Scholastic theory of ‘matter and form’” was well known in 1888 but the label “hylomorphism” was still novel. In 1897, however, the same year the review of Pesch’s work in *The Month: A Catholic Magazine* appeared, Anton Michelitz used the German cognate of “hylomorphism” in his *Atomismus, Hylemorphismus und Naturwissenschaft* without explanation, arguing, as Pesch had in 1880, that the details of modern chemistry were consistent with Aristotle and the Scholastic’s doctrine of matter and form. By 1897 “hylomorphism” and its cognates had become an established part of the scholar’s vocabulary when referring to Peripatetic doctrines of matter and form.

We now know when “hylomorphism” first appeared in English – 1860 – and we know, roughly, when it began to refer to the Peripatetic doctrines of matter and form – the 1880s. Thus, in spite of its ubiquitous use among historians of science and philosophy today, we also know that neither the word “hylomorphism” nor its cognates were used by Aristotle, the Ancient or Medieval Commentators, or Early Modern natural philosophers. This is worth remembering, for “hylomorphism” itself implies the existence of a single substantive doctrine. Recall that the word was coined in the 1880s and 1890s to refer to “the scholastic doctrine” and it was meant as an alternative, really the alternative, to secular and scientific trends in the nineteenth century. But these trends and the pressures felt in the Catholic Church left little room to acknowledge that there may not be a singular doctrine shared by Aristotle, Aquinas, and other scientists and philosophers.

To persist in thinking that there exists a singular doctrine of matter and form is to ignore the diversity of views held by the Peripatetics and the layers upon layers of commentary that created the Aristotelian tradition beginning in the third century AD with Alexander of
Aphrodisias. I began this paper by listing just a few of Aristotle’s many uses of matter and form, but the diversity and even disagreements among the Peripatetics is even more pronounced. Consider just the early disagreements over whether “prime matter” – matter wholly devoid of form – was necessary to explain substantial change. Many of the Commentators argued that in the generation of a new substance there must exist some matter that stands ready to receive a form. To deny the existence of such matter was to compromise Aristotle’s analysis of change, or so claimed prime matter’s defenders. The fact that Aristotle never explicitly or consistently endorsed the existence of prime matter effectively guaranteed that disputes over its existence could not be settled. The early Commentators also disagreed about the separate existence of some “substantial forms” – forms without matter – that would be eternal and unchanging; in a sense, the antithesis of prime matter. These disputes interested not only Alexander, an early proponent of prime matter, but later Commentators as well, including Porphyry, Simplicius and Philoponus. And the same debates returned with vigor in the High Middle Ages. For, whereas the Thomists rejected the possible existence of prime matter, the Scotists sided with Alexander and maintained that prime matter can and must exist. In fact, the differences within Aristotelian scholasticism were so apparent that during the sixteenth century the University of Padua established separate Thomist and Scotist chairs in metaphysics and theology, effectively endorsing the view that there were no less than two legitimate versions of Aristotle.

It should now be obvious that an unreflective belief in something called “hylomorphism” is contradicted by the various uses of matter and form in the Aristotelian tradition. This alone urges us to be cautious when using the term. But “hylomorphism” has also served to hide the deep agreements that existed between Peripatetics and their supposed executioners, the seventeenth-century’s novatores. This is not to deny that the rhetoric of the seventeenth century
was firmly against the “philosophy of the schools,” as Aristotelian scholasticism was frequently identified, but rhetoric is not always our best guide. The mistake is to allow this rhetoric, along with the contemporary scholar’s use of “hylomorphism” to refer to a pure and singular doctrine that unifies all of the Peripatetic tradition, to determine what precisely was being rejected. In other words, when contemporary scholars find Descartes, Hobbes, or Boyle rejecting the school philosophy, it seems all too natural to interpret them as rejecting hylomorphism which, to the contemporary scholar, is tantamount to rejecting all matter-form thinking.

This is, however, simply not what occurred. More accurately, these figures were rejecting specific incarnations of matter-form thinking, such as the common (but not ever present) Aristotelian scholastic belief that forms were “substantial” and capable of existing without matter. Or, the Scotist belief that there existed a “prime matter” that was a formless and undifferentiated precondition for change. These specific features of matter-form thinking were ridiculed and abandoned by the *novatores*, who took little interest in disputes taking place within the Peripatetic tradition even while taking one side against the other. But matter-form thinking persisted. Descartes assimilated forms to configurations of matter and claimed that the human mind was the substantial form of the body.\(^27\) Hobbes chose to title his most important work “*Leviathan; or The matter, forme, & power of a commen-wealth eccesiasticall and civill*” and Boyle, for all his objections and qualifications, acknowledged that “for brevities sake” he would, “retain the word *Forme*.\(^28\)

While the persistence of matter-form thinking in the work of the *novatores* is obvious, too often the presumption that “hylomorphism” equals Peripatetic and Peripatetic equals what the *novatores* rejected has led historians of science and philosophy to misrepresent the role of matter-form thinking in the seventeenth century and beyond.\(^29\) Any historian, and there are too
many to count, who writes simply that “hylomorphism was rejected in the seventeenth century” or that “appeals to form were rejected in the seventeenth century,” without specifying that they mean “just one version of hylomorphism” or that they mean “substantial form” and “not form per se,” falls prey to and reinforces this misrepresentation.

There is one remaining question to consider in light of these results: should the history of “hylomorphism” and its misleading implications require that we discontinue using the term? A similar question was once asked about “Aristotelianism” by Charles Schmitt in the course of his pointing out that “Aristotelianisms” would be a more appropriate term to convey the diversity that lurks behind “Aristotelianism.” I would suggest something similar here. “Hylomorphisms” is a more appropriate term for us to use than “hylomorphism.”30 Aside from emphasizing the plurality of matter-form thinking we have already encountered, if we use “hylomorphisms” we will be encouraged to ask questions that do not frequently enough occur in our scholarship. For example, if there are hylomorphisms, which of them were rejected, and when? Which were embraced? Which persist even today? These questions hold the promise of a more accurate account of Aristotle as well as his Peripatetic followers and the competing traditions in Ancient, Medieval, Renaissance and Early Modern science and philosophy.

1 “Hylo” is a compounding form of hyle, meaning matter, and morphe means form. Compound words of the Greek first declension do not use the genitive of the first word. Sometimes the long alpha or eta is retained; at others, by analogy to the second declension, an omicron is substituted. So either “hylomorphism” or “hylemorphism” would be acceptable Greek. As a result, one frequently finds not “hylomorphism” but “hylemorphism”, as, for example, throughout The Cambridge History of Renaissance Philosophy, ed. C. Schmitt and Q. Skinner (Cambridge: Cambridge University Press, 1988), The Cambridge History of Seventeenth-Century Philosophy,


3 All citations of Aristotle will include the Latin title and the Bekker pages, e.g., as *De caelo* I.2.269b18ff in the present case.

4 See, for example, *De anima* II.1.412a19-28. The significance of the soul is also discussed at *De partibus animalium* I.5.645b15-28.

5 See, for example, *De anima* II.12.424a17.

6 This is a puzzling claim given many of Aristotle’s empiricist commitments, but see *De anima* III.4-5 and *De generatione animalium* II.3.736b22.


8 See, for example, *De caelo* IV.3.310a31ff.

9 All these dictionaries are searchable at http://artfl-project.uchicago.edu/content/dictionnaires-dautrefois (last visited September 2010).


14 The 1837 letter is reproduced in Cordes, *op cit*. I have used the German found in Cordes’s essay and checked it against the text in F. Jacobi, *Aus F.H. Jacobi’s Nachlaß*, 2 vols., ed. R. Zoeppritz (Leipzig: Engelmann, 1869).


17 The same is true of Francois Bonifas’ *La doctrine de la rédemption dans Schleiermacher*: “L’anthropomorphisme – que j’appellerais plus volontiers idéomorphisme, -- est inévitable, je le reconnais, lorsqu’il s’agit de traduire en langage humain le sentiment religieux; je ne déciderai pas la question de savoir si l’hylomorphisme est aussi inévitable sur le terrain des sciences
naturelles” (F. Bonifas, La doctrine de la rédemption dans Schleiermacher (Paris: C. Meyrueis, 1865), 83).

18 T. Pesch, Institutiones Philosophiae Naturalis secundum principia S. Thomae Aquinatis (Friburgi: Herder, 1880).

19 “Thesis: Systema hylomorphicum vel physicum, 1 ad capita primaria quod attinet, tamquam omnino certum admitti debet; 2 certum etiam in iis est, quae proxime ex illis consequuntur et solis innixa sunt philosophicis rationibus, 3 ad mutationes chimicas explicandas adhibitum pro ea, qua haec nostra aetas pollet, rerum naturalium peritia, etsi non omni ex parte certum, tamen hypothesis omnium optima est; 4 ad facta, quibus nītur quod spectat, sine systematis detrimento ea, quae recte a recentioribus doctoribus observata sunt, iliis [sic] substituuntur, quae a veteribus minus accurate conjiciebantur” (Ibid., 315).


