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The nearest thing to a standard modern edition of *De corpore*—and certainly the edition most cited in twentieth-century scholarship—is that of Sir William Molesworth. Molesworth's editions of the Latin text and contemporary English translation form the first volume of *The English Works of Thomas Hobbes* and the bulk of the first volume of the *Opera Latina* (both 1839). Hobbes scholarship owes an immense debt of gratitude to Molesworth, whose labour and munificence brought into being a relatively comprehensive collection of Hobbes's works at a time when these were difficult to come by and the name of Hobbes a byword for dangerous religious heterodoxy. Molesworth reportedly paid £6000 toward the printing of his edition and

<sup>&</sup>lt;sup>1</sup> Thomæ Hobbes Malmesburiensis Opera Philosophica Quæ Latine Scripsit Omnia in Unum Corpus Nunc Primum Collecta, ed. William Molesworth, 5 vols. (London: Bohn, 1839-45) ("OL"); The English Works of Thomas Hobbes of Malmesbury, Now First Collected and Edited by Sir William Molesworth, ed. William Molesworth, 11 vols. (London: Bohn, 1839-45) ("EW").

<sup>2</sup> [Thomas Woolcombe, ed.], Notices of the Late Sir William Molesworth, Bart., M.P. (London: privately printed, 1857), 11-12, 81-4, 85-7. Molesworth's political opponents (men of nonconformist stripe, suspicious of Hobbes's Erastianism) turned his interest in Hobbes against him when, in 1845, he stood for election in Southwark: both he and Hobbes were decried as "infidels" and Molesworth was heckled with cries of "No 'Obbes"; he won the election tidily (Mrs. [Millicent Garrett] Fawcett, The Life of the Rt. Hon. Sir William Molesworth (London: Macmillan, 1901), 249-52).

donated copies to college and municipal libraries across Britain.<sup>3</sup>

Molesworth's collection followed the philosophical, rather than the chronological, order of Hobbes works, with *De corpore* at the head of both English and Latin collections, and thus the entry-point and apparent foundation of his philosophy—an appearance that has often been taken by subsequent scholarship as an unproblematic reality. Molesworth also furnished us with a standard referencing system, facilitating the location and citation of passages in Hobbes's disparate and largely uncollected body of writings within a single, widely accessible collection. Reprints of his English and Latin editions by Scientia of Aalen (*OL*: 1961, reprinted 1966; *EW*: 1962, reprinted 1966) and Thoemmes of Bristol (1999) increased the reach of Molesworth's text, as did its employment in databases such as InteLex's "Past Masters" series. And student-friendly English-language selections based on Molesworth's English text became the primary means through which *De corpore* was, during the twentieth century, most widely encountered.

<sup>&</sup>lt;sup>3</sup> Fawcett, Life of Molesworth, 209; Library of Universal Knowledge: A Reprint of the Last (1880) Edinburgh and London Edition of Chambers's Encyclopaedia, 15 vols. (New York: American Book Exchange, 1881), 10:98.

<sup>&</sup>lt;sup>4</sup> This includes *EW* only.

<sup>&</sup>lt;sup>5</sup> For such selections, see, for instance, Mary Whiton Calkins, *The Metaphysical System of Hobbes* (Chicago: Open Court, 1905), much reprinted; Hobbes, *Body, Man, and Citizen: Selections from Thomas Hobbes*, ed. Richard S. Peters (New York: Collier, 1962), also frequently reprinted; Hobbes, *The Elements of Law Natural and Politic*, ed. J. C. A. Gaskin (Oxford: Oxford University Press, 1994), reproduces chapters 1, 6, and 25 from Molesworth (xlix). Isabel C. Hungerland and George R. Vick reproduce Molesworth's Latin text of chapters

Even Molesworth's renditions of Hobbes's figures and diagrams have enjoyed a long life, appearing in facsimile—in preference to those of the original editions—in a scholarly edition of the Latin text in 1999.<sup>6</sup>

Ι

De corpore was first published, in Latin, in London in 1655. That edition underwent a number of in-press alterations, involving the cancellation and replacement of several leaves, as some of Hobbes's geometrical innovations—most notoriously his effort to square the circle—were exposed to criticism after sheets were circulated during the presswork. But Hobbes's hasty retrenchments did not abate the tide of criticism. The appearance of the book sparked an acrimonious pamphlet war, in which John Wallis and Seth Ward, Savilian professors at Oxford University, criticized various aspects of the work—including its geometry, its physics, and even its author's command of Latin grammar—with an eye to discrediting the wider philosophical project with which Hobbes's natural philosophy was associated, and of which his success in solving the classical geometrical puzzle of squaring the circle was supposedly a demonstration.<sup>7</sup>

In response to such criticisms, Hobbes made a number of modifications to the English

<sup>1-6</sup> in facsimile in their annotated edition of *De Corpore*, *Part 1: Computatio Sive Logica* (New York: Abaris, 1981), accompanying it with a new translation by A. P. Martinich.

<sup>&</sup>lt;sup>6</sup> De corpore: elementorum philosophiae sectio prima, ed. Karl Schuhmann, with the collaboration of Martine Pécharman (Paris: Vrin, 1999) ("SDC").

<sup>&</sup>lt;sup>7</sup> Douglas M. Jesseph, *Squaring the Circle: The War Between Hobbes and Wallis* (Chicago: University of Chicago Press, 1999).

translation of the text issued anonymously—though with Hobbes's approval, overview, and occasional intervention—in 1656.<sup>8</sup> After several more skirmishes with Wallis, Hobbes made additional revisions to the text, first in his *Examinatio et Emendatio mathematicae hodiernae* of 1660, and then in the revised reprint of *De corpore* prepared by Johann Blaeu of Amsterdam for the 1668 collection of his *Opera philosophica*. This was the final version of the text over which Hobbes had any oversight.

Molesworth took Blaeu's edition as the basis for his text of the Latin *De corpore*, ignoring all earlier versions. For the English version he followed the first and only edition—that of 1656. A radical MP and practical man of affairs, with no time for academic niceties (he was sent down from Cambridge after challenging his tutor to a duel), Molesworth prized accessibility over accuracy, taking little interest in the drudgery of collation, the recording of variant readings, or the registration of departures from his copy. While Molesworth's emendations are generally well-judged, his failure to register the original readings hides potentially important information. Thus, for instance, one apparently innocuous area in which Molesworth was especially active was in correcting erroneous cross-references to chapter and article numbers of prior or subsequent demonstrations. While correction of such references is helpful to a reader, to do so silently disguises valuable evidence about the evolution of the structure of the text, since the frequency of such errors shows that they represent once correct references to earlier versions of

<sup>&</sup>lt;sup>8</sup> The identity of the translator, and the character and extent of Hobbes's involvement with the translation are matters that have yet to be determined with certainty.

<sup>&</sup>lt;sup>9</sup> Fawcett, *Life of Molesworth*, 19.

the work—references that were inadvertently left standing as the work underwent restructuring.<sup>10</sup> They can thus point us to areas of the text that underwent revision, and offer glimpses of earlier structures.

Other valuable information about Hobbes's working practices is lost by Molesworth's systematic modernization. In his discussion of the vacuum in chapter XXVI. 3, Hobbes draws upon Lucretius' discussion of the vacuum in Book I of *De rerum natura*, at one point quoting I. 385-91, an account of the way that air rushes in to fill the space after two flat surfaces are forced apart. In Molesworth's Latin text, line 387 reads "Inter corpora quod fiat, possidat inane"—the standard reading of modern texts of the poem. But Molesworth has corrected his source here, for the English translation of 1656 and both authorized Latin editions (1655 and 1668), as well as Molesworth's own English text, show a different verb; instead of the present subjunctive "fiat" ("might be made") they show the indicative pluperfect "fuerat" ("it had been"). The change may not in itself appear very important—"fiat" is the dominant reading in the textual tradition and is favoured by modern editors. But in its oddity, "fuerat" offers a clue to Hobbes's sources and working methods. It is an emendation first proposed by the French scholar Marc-Antoine

<sup>&</sup>lt;sup>10</sup> See, for example, the reference, in XXVII. 8, to "cap. XV. art. 3" ("art. 3, chap. XV") in *OL* 1:370 (*EW* 1:455), in which the chapter number is altered from "XVI" in all the authorized editions. For some discussion of this evidence, see *SDC*, xlii-xliv; also pertinent in broad terms, for its consideration of Hobbes's method of "serial composition," is Deborah Baumgold, "The Difficulties of Hobbes Interpretation," *Political Theory* 36, no. 6 (2008): 827-55.

<sup>&</sup>lt;sup>11</sup> *OL* 1:341.

<sup>&</sup>lt;sup>12</sup> EW 1:418.

Muret as a means of dealing with a single manuscript reading "fuat," and first discussed with a degree of approval ("non improbo") by Denys Lambin in his 1563[/4] annotated edition of Lucretius. <sup>13</sup> But it has never been a common reading; we have so far failed to find it in any printed text of the poem prior to 1754. <sup>14</sup> Hobbes's "fuerat" therefore raises questions about the basis of his text and his approach to it. Was he working from a copy of Lambin's edition, scrutinizing the textual notes and carefully weighing emendations as he copied out his quotations? Or was he using another, yet to be identified, edition that adopts Muret's reading? We have thus far not managed to answer this question satisfactorily. But we can at least recognize that it is a question. In sum, while Molesworth's edition may be useful for its wide accessibility and standardized referencing, his texts are fundamentally unreliable as guides to the phrasing of the early editions.

The task of establishing a reliable text based directly on the original editions has been significantly advanced by Karl Schuhmann, who is responsible for the only critical edition of any version of the text to have appeared thus far. Schuhmann edited the Latin version of *De corpore* 

<sup>&</sup>lt;sup>13</sup> Titi Lucretii Cari De rerum natura libri sex, ed. Denys Lambin (Paris, 1563[/4]), 40, 41.

Lambin himself prefers "fiat" and would subsequently adopt Adrien Turnèbe's conjecture "fuuat"; Titi Lucretii Cari De rerum natura libri sex, ed. Denys Lambin (Paris, 1570), 45, 46.

<sup>14</sup> It appears in Joseph Barbou's Titi Lucretii Cari de rerum natura libri sex: Accedunt selectæ lectiones dilucidando Poëmati apposita (Paris, 1754), 13. It should be noted that Hobbes's reading is reproduced without comment by Seth Ward in his critique of De corpore, In Thomae Hobbii Philosophiam Exercitatio Epistolica (Oxford, 1656), 130.

for the Paris publisher J. Vrin in 1999; it appeared in Vrin's "Hobbes Latinus" series. <sup>15</sup> In his scrupulous recording of variants in different versions of the Latin text, Schuhmann broke new ground. But his edition is by no means complete, as it largely ignores the English text beyond registering major points of variation. And its usefulness is compromised by a number of eccentricities in his approach—as, for instance, in his decision to base his text on the 1668 edition (which includes many minor changes introduced by Blaeu's compositors, thus unnecessarily removing it a further stage from Hobbes's original manuscript), his recording of variants in Molesworth's text (none of which have any authority and most of which are obviously errors) and in his regularization of accidentals (i.e., spelling, punctuation, and other formal features of the text) as if he were dealing with a text from the classical period, for which there is no possibility of preserving any traces of an author's own practices. <sup>16</sup> A new edition, of both English and Latin texts, and based on modern editorial approaches, is overdue.

Our edition of *De corpore* will be the first to provide critical editions of both Latin and English texts, taking account all authoritative textual witnesses, and edited to modern standards. The Latin text will be based on the 1655 edition, incorporating substantive changes from 1668. Both Latin and English texts will be presented in original spelling and punctuation. In accordance with the practice of the Clarendon Edition, Latin and English texts will appear on facing pages, and notes will furnish fresh translations of Latin passages which are either

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<sup>&</sup>lt;sup>15</sup> SDC.

<sup>&</sup>lt;sup>16</sup> See, for full discussion, Noel Malcolm, "The Printing and Editing of Hobbes's *De corpore*: A Review of Karl Schuhmann's Edition", *Rivista di Storia della Filosofia* 59, no.1 (2004): 329-357.

inaccurately rendered in the English version, or do not appear in it—as, for example, passages that were altered or added for the English version (such as the English summary of the quotation from Lucretius I. 385-91 in chapter XXVI. 3), or rewritten for the 1668 edition (the extra astronomical details provided in XXVI. 10-11, for example, or the addition of a further speculation about the cause of suffocation in mines in XXX. 14).

The Latin version should be a scholar's first recourse for the text of *De corpore*, for it is only this for which Hobbes was wholly responsible, and this that he repeatedly revised and ultimately left to posterity in his collected *Opera philosophica* of 1668. Our registering of substantive differences between the English translation of 1656 and the various versions of the Latin will allow non-Latinate readers access to the precise formulations of Hobbes's ideas wherever the English differs significantly from the Latin. Our main focus is on departures from 1655 in 1656. While many of the differences between the two versions are the result of loose translation or a tendency towards paraphrase on the part of the translator, even these unintended variations may be substantive and philosophically significant.

Sometimes this is a matter of a loose or imperfect rendering of Hobbes's Latin philosophical vocabulary. So, for example, in I. 7 and IV. 8 1656 renders Hobbes's "affectus" (affection, state, condition) with "Quality" or "Accident" (even though *qualitas* and *accidens* were available if this was what he had intended). Equally problematic is 1656's replacement of Hobbes's "velocitas" ("swiftness"/"speed") with the English "motion" (e.g., II. 15 and III. 4). In IV. 4 and IV. 7 (and elsewhere), Hobbes refers to a syllogism as "legitimus" ("legitimate" or "lawful"), which 1656 renders as "true," which whilst not completely inaccurate, loses the original Hobbesian sense (a similar problem occurs with Hobbes' description of reasoning as "legitimus"). Occasionally the English renderings are philosophically inexact: it is one thing, for

example, to say that things "are not" ("non sunt," V. 4, 1655, p. 37) and another to say they "cannot be" (1656, p. 44). Sometimes one feels that the translator's attention must simply have wandered, as when in V. 9 1656 translates Hobbes's *Ens aliquod esse ens per se* ("anything that has being exists by itself"; 1655, p. 38) as "any thing that has being, exists by Accident" (1656, p. 45; or when (in VI. 13) Hobbes's reference to "Natura abhorret vacuum" (1655, p. 50) is rendered—possibly under the influence of the word *frustra* in the next phrase—as "Nature abhorres Vanity" (1656, p. 60).<sup>17</sup>

Sometimes 1656 omits elements that are necessary for a clearer understanding of Hobbes's meaning: in V. 5, for example, 1656 renders "nomen . . . sive vox" ("name . . . or word"; 1655, p. 37) with "word," thereby softening Hobbes's radical nominalism (likewise in II. 3, 1656 replaces Hobbes' reference to "voces humanae"—"human sounds or words" (1655, p. 9)—to the less equivocal "words"). Another sin of omission can be found in VI. 18 when 1656 omits the word "necessario" ("necessarily"; 1655, p. 54) when Hobbes says that we can conclude that the earth moves. A small translation choice can sometimes make a big difference: in VI. 7, for example, where Hobbes is discussing civil and moral philosophy, 1656 alters Hobbes's prescriptive intention to a descriptive one. 1656 renders "in omni genere civitatis, quod juris ipsi debetur civitati" ("in every kind of state, what rights *are owed* to that state";1655, p. 46) as "in every kind of Goverment, what *are* the Rights of the Commonwealth" (1656, p. 54; our emphasis). In II. 7, when Hobbes discusses the mental processes underlying the act of naming, 1656 renders "revocamus in animum" ("we recall in the mind"; 1655, p. 11) with the less specific "we take notice ourselves" (1656, p. 14) which fails to register the link between memory

<sup>&</sup>lt;sup>17</sup> It is just possible that this is a compositor's misreading of "Vacuity" in the copy.

and signification in 1655 (Hobbes uses the verb *revocare* several times in this chapter). When discussing the use of the synthetic and analytic methods in VI. 3, Hobbes suggests that different kinds of investigation require one technique or the other, but 1656—by omitting to translate "modo utraque" ("and sometimes both"; 1655, p. 43)—rules out the possibility that they might be employed simultaneously.

Sometimes 1656's translation choices seem to strengthen Hobbes's claims in various ways. Thus, in XXVII. 4, where Hobbes mentions only the more abstract "subjectum" ("a subject"; 1655, p. 259), the translator opts for the more explicitly materialist "a Body." In XXIX. 17, where Hobbes speculates that different-shaped atoms might produce the different tastes sensed by the tongue 1656 transforms Hobbes's more probabilistic phrase "quod videre posset verisimile" ("may seem to be probable or plausible"; 1655, p. 291) with the more veridical "might in probability seem to be the true causes" (1656, p. 376).

Such discrepancies might give one pause to wonder whether it might not be helpful to offer a fresh translation of the complete Latin text. This would certainly render a cleaner appearance, with a largely unbroken modern translation facing the original. The problem, however, is that Hobbes was involved in preparing the English translation of 1656, which therefore possesses authority: some of the differences between it and the Latin of 1655 are substantive authorial alterations. And since we cannot be certain which differences represent intentional changes by Hobbes and which inadvertent errors on the part of the anonymous translator, we would be obliged to present *two* English texts running in parallel with one another as well as the Latin. To this alternative, our approach seems simpler and therefore preferable.

In addition to critically-edited parallel texts of the Latin and English versions of *De corpore*, and an apparatus indicating points at which the English departs significantly from the Latin, our edition will contain editions of a number of manuscripts related, in various ways, to *De corpore* in particular and to Hobbes's thinking about metaphysics ("first philosophy," in Hobbes's terms) and natural philosophy more generally.

These manuscripts are related in two main ways to *De corpore*. The most substantial group of manuscripts is comprised of those which offer snapshots of the work, or parts of the work, at various points during its composition. First in scope and importance in this group are a transcript of *De corpore* taken, during the mid-1640s, by Sir Charles Cavendish (a manuscript in his hand in a collection of his papers in the British Library (Harley MS 6083, fos. 71-7, 194-211) and another made by Hobbes's associate Robert Payne (a manuscript now among the Hobbes Papers at Chatsworth (Hobbes MS A. 10)).

Robert Payne's manuscript is a "mini-notebook" (one of several similarly constructed notebooks which survive among his papers) containing notes on earlier versions of chapters I-XV and XVII, with titles only of chapters XVI and XVIII. The text of the earlier part (up to chapter XII and with the exception of chapter VI, which appears here in a brief, fragmentary form) corresponds closely to the version printed in 1655, with the later, mathematical sections showing substantial differences. The notes of Charles Cavendish are inscribed "Apr: 29: 1645" and were clearly composed in late April/early May in that year. They bear witness to an early draft of *De corpore*, covering chapters I-XVII, bound up together with other working papers and scribal transcripts associated with Sir Charles in a composite volume.

The Payne and Cavendish notes present both opportunities and challenges. On the one hand they offer us informative glimpses of the state of *De corpore* in the mid-1640s, providing

us with invaluable insights regarding the genesis of Hobbes's natural philosophy, which altered significantly between the 1640s and 1650s (the chapter on method (VI), for example, was significantly expanded in 1655 and was informed by a different set of concerns than the draft version). The challenges have been both palaeographical and interpretative. Palaeographical, because as notes intended for personal use rather than fair copies the manuscripts are often difficult to decipher: written in varying degrees of haste, individual words can often pose problems, and both Payne's and Cavendish's Latin is heavily abbreviated. The interpretative challenges arise out of their status as non-autograph witnesses to an existing but otherwise inaccessible Hobbesian draft. Questions arise regarding the fidelity of these notes to the underlying texts. Are they witnesses to a continuous text, or are they products of the vagaries of Payne's and Cavendish's interests or attention spans? If something which is in 1655 is absent from Payne or Cavendish, does this mean it was added in the 1650s, or that Payne or Cavendish neglected (for whatever reason) to record it?

In the case of autograph witnesses, we are given a privileged glimpse into the working processes and compositional decisions of the author. The deletions and insertions in Payne and Cavendish are more often the result of the imperfection of the copying process (eye-skip errors, etc.). The status of the Cavendish notes is particularly problematic. While Payne was clearly bent on making a personal copy of Hobbes's work at that point in time, Cavendish's priorities are rather different. His witness to Hobbes's work is a set of notes, rather than a straightforward copy. His record of the underlying Hobbesian text is intermittent and is intermixed with notes from a number of other books on logic he was reading concurrently, which entailed a "sifting" process to isolate the Hobbesian elements which it is our aim to edit, rather than a continuous transcription of Cavendish's notes. The complex *mise-en-page* of Cavendish's notes also require

some interpretation and reconstitution.

Another manuscript of smaller scope but great significance is now among the Herbert Papers in the National Library of Wales (MS 5297E), a manuscript of four large sheets, headed "Of Knowledge and the Power Cognitive," with a side-note that points to a bipartite work dealing with sources of knowledge and sources of action ("1.9/ De principijs cognitionis . . . 2.9/ De principijs actionis"). The manuscript records, in phrasing that shifts between Latin and English material on metaphysics or, in Hobbes's terms, first philosophy, that would subsequently appear in chapters VII-VIII and XI-XII of *De corpore*. The English phrasing is at times close to that of *The Elements of Law* (1640) and contains a passage that appears in neither *Elements of Law* nor *De corpore* but, almost verbatim, in Hobbes's "Answer" to Sir William Davenant's *Preface to Gondibert* ([31 December 1649/]10 January 1650). The manuscript is incomplete, and the text cuts off abruptly at the foot of the fourth verso, thereby making its original scope difficult to determine. It is a puzzling document, which raises many questions. Even the most basic of these, such as who wrote it and when, have yet to be satisfactorily answered. Our edition will offer a thorough examination of all available evidence for date, scribe, and context.

<sup>&</sup>lt;sup>18</sup> See Noel Malcolm, Aspects of Hobbes (Oxford: Oxford University Press, 2002), 17 n. 70.

<sup>&</sup>lt;sup>19</sup> For the major discussions of dating prior to Malcolm, Aspects, 17 n. 70, see Mario M. Rossi, *Alle fonti del deismo e del materialismo moderno* (Florence: La Nuova Italia, 1942), 120-3; Arrigo Pacchi, *Convenzione e ipotesi nella formazione della filosofia naturale di Thomas Hobbes* (Florence: La Nuova Italia, 1965), 16-17; Thomas Hobbes, *Critique du "De mundo" de Thomas White*, ed. Jean Jacquot and Harold Whitmore Jones (Paris: Vrin, 1973), 80-2; Anna Minerbi Belgrado, *Linguaggio e mondo in Hobbes* (Rome: Riuniti, 1993), 165-9; *SDC*, civ.

A less problematic but hardly less interesting manuscript is the scribal fair-copy of a projected chapter XIX focused on geometrical figures, now among the Hobbes Papers at Chatsworth (Hobbes MS A. 4). While this does not appear in the published work, some material from it appears in chapters XVII and XVIII.<sup>20</sup> The text is written and foliated in the hand of the Parisian scribe—a scribe employed by Hobbes for important commissions during his Paris sojourn (which helps us to date it to the period of his French exile).<sup>21</sup> It contains a few small corrections in Hobbes's hand. Taken along with the transcripts of Sir Charles Cavendish and Robert Payne, covering up to chapter XVII, this manuscript gives us a clear sense of the intended shape of the work, and how far Hobbes had progressed with it, by the time of his return to London in 1651.

A small handful of additional manuscripts also shed light on the development of the text: one is a letter from Sir Charles Cavendish to the Hamburg philosopher, Joachim Jungius of 11 May 1645, in which he records his firsts impressions about Hobbes's "first philosophy" (especially as it concerns motion, space, and place) shortly after his first encounter with the text. The second is a small bifolium by Robert Payne containing material corresponding to chapter XII. 1-9 and XIII. 1 and 3 of *De corpore* (Chatsworth, Hobbes MS C.iv.2), which predates the copy that Payne made in MS A. 10.

<sup>&</sup>lt;sup>20</sup> As noted by Jesseph, *Squaring the Circle*, 126 n. 62.

<sup>&</sup>lt;sup>21</sup> On the Parisian scribe, see Timothy Raylor "The Date and Script of Hobbes's Latin Optical Manuscript," *Scribes and Transmission: English Manuscript Studies* 12 (2005): 201-9, and Noel Malcolm, "Hobbes, the Latin Optical Manuscript, and the Parisian Scribe," in the same publication, 210-32.

In addition to this cluster of manuscript witnesses to the text during its years of gestation and development, our edition will also include two other kinds of "related texts," which are less directly relevant to the genesis of *De corpore*, but are still relevant to a general consideration of Hobbes's first philosophy, geometry, and natural philosophy. Two of these are items shared with and apparently written specifically for Hobbes's patrons, the Cavendish brothers. The first is a holograph draft of a geometrical problem presented by Hobbes to Sir Charles Cavendish sometime after the latter's arrival in Paris in mid-April 1645 (Harley MS 6083, fo. 340r), which shows how to draw a tangent line to a given point in a parabola, ellipse or the circumference of a circle. The second is a short holograph manuscript written by Hobbes for his patron, William Cavendish, first earl of Newcastle, entitled "To compare the strength of two swords that presse each other" (British Library, Harley MS 5219, fos. 1v-5r). 22 The work was earmarked by Newcastle for inclusion in his lengthy treatise on fencing "The Truth off the Sorde," a work he evidently intended for publication but which never saw print.<sup>23</sup> Hobbes's essay was written around the same time as *De corpore* and offers a practical application of some of Hobbes's mechanical theories. The piece presents a mechanical analysis of the relative strength of two swords pressing against one another in order to show that the force of the one is to the force of the other is in reciprocal proportion to the distances of the point where the blades meet from the perpendiculars of the fencers' shoulders. The human arm is compared to a weighted beam, its shoulder "the center of a paire of scales" exerting composite forces in an entirely regular manner.

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<sup>&</sup>lt;sup>22</sup> See Timothy Raylor, "Thomas Hobbes and 'The Mathematical Demonstration of the Sword," *The Seventeenth Century* 15, no. 2 (2000): 175-98.

<sup>&</sup>lt;sup>23</sup> The manuscript is British Library, MS Harley 4206.

In our edition we consider this work in relation to discussions concerning the Pseudo-Aristotelian *Mechanica* in the Mersenne circle at this time.

Finally, readers of our edition will find in it a text of the work dubbed by Ferdinand Toennies "A Short Tract on First Principles." The authorship of the "Short Tract" has been the subject of some recent controversy. Does it represent, as was long assumed, Hobbes's first essay into the areas (metaphysics, physics, and psychology) that he would later explore in the tripartite "Elements of Philosophy"? Or is it rather a work on such matters by Robert Payne? We believe that the preponderance of evidence strongly favours Payne, writing in particular for the Newcastle circle. But we recognize that the question of authorship is not settled beyond dispute, and therefore include the "Short Tract", as a work of disputed authorship, along with an account of the evidence and main lines of argument about it, so that readers may have access both to the text and to the main points at issue so that they may reach their own conclusions about it. 25

Our work on De corpore and these related manuscripts is nearing completion. What we

<sup>&</sup>lt;sup>24</sup> For Payne's authorship, see Noel Malcolm, "Robert Payne, the Hobbes manuscripts, and the 'Short Tract," in *Aspects of Hobbes*, 80-145; Timothy Raylor, "Hobbes, Payne, and *A Short Tract on First Principles*," *The Historical Journal* 44, no. 1 (2001): 29-58.

<sup>&</sup>lt;sup>25</sup> For Hobbes's authorship, see Karl Schuhmann, "*Le Short Tract*: première oeuvre philosophique de Hobbes," *Hobbes Studies* 8, no. 1 (1995): 3-36; Guilherme Rodrigues Neto, "Hobbes e o movimento da luz no *Breve tratado*," *Scientiae Studia* 4, no. 2 (2006): 251-305; Frank Horstmann, *Nachträge zu Betrachtungen über Hobbes' Optik* (Berlin: Mackensen, 2006), 305-428.

are offering readers is not an "ideal" text. or a text *aus dem letzter Hand*, but a critical edition of the Latin and English editions with a clear apparatus showing the development of the work as it underwent printing and revision, supplemented by all other available textual witnesses to its development. Our introduction lays out the evidence for dating these materials. Taken as a whole, the edition should allow readers to reconstruct the development of Hobbes's first philosophy and natural philosophy and geometry during the 1640s and 1650s. What we hope above all is that our edition will enable a new generation of Hobbes scholars to reach a more informed understanding of the place of *De corpore* both in his philosophical system, *Elementa Philosophiae*, in particular and within his philosophical thought in general. This, in turn, should allow for a more accurate assessment of Hobbes's place in relation to that of the other great system builders of the age, such as his rival Descartes, within the wider history of early modern philosophy.

Stephen Clucas (Birkbeck University of London)

Timothy Raylor (Carleton College, Minnesota)